HeritAccess Guide

"A collection of guidelines on how to make a rural heritage accessible"

Authors: Manuel Carabias, Jasna Cordas, Dražen Deranja, Margherita Grandin, Gerogioka Marfenia, Matthias Hövelmann, Svenja Hövelmann, Tobias Klann, Patrizia Loiola, Konstantina Ragazou, Sebastiano Simionato, Damiana Sudano, Barbara Turk.

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Introduction to the topic

1. HeritAccess project

HeritAccess Erasmus+ project - access to culture and heritage in rural surroundings through the interactive digital experience - aims at democratizing the acknowledgment of traditional rural heritage with so much educative and historical value, not yet adapted for an elder and disabled visitor.

The concrete results the project partners will be jointly design and implemented are:

A. Introduction to the topic

- a database, containing a list of public and private rural heritage open to the public that concentrates on traditions, legends and decades of the families-run trade;

- a digital experience, [HeritAccess digital platform](#), constituting a European platform where the virtual tours of the less accessible rural heritage identified and selected among the below-mentioned database, will be exposed and available for free;

- a collection of guidelines, the HeritAccess Guide, containing standards and advice to turn an old almost unused space into a ready-to-be-exploited site, full of historical value and, most importantly, accessible to a wider adult public.

The partnership of the HeritAccess project:

The project's consortium consists of seven organisations from six different European countries: Asociación Ruta del Vino de Toro (Spain), Formative Footprint (Spain), FORCOOP C.O.R.A. VENEZIA SOCIETA' COOPERATIVA (Italy), Europski klaster Alpe Adria Pannonia (Serbia), Grm Novo mesto - center biotehnike in turizma (Slovenia), University of Thessaly (Greece) and novopano UG (Germany).

2. Existing situation regarding accessibility in rural heritage sites

It is important to identify the existing situation regarding accessibility in rural heritage sites in the six participating countries (Spain, Italy, Serbia, Slovenia, Greece) where focus groups were held with potential rural heritage visitors with special needs to identify their needs and the barriers they may encounter.

● **Spain**

In a study carried out in the city of A Coruña, it was pointed out that most tourist sites are not adapted for people with sensory disabilities or for visitors with reduced mobility. From the results obtained in the aforementioned study, it was deduced that the tourism model of the city of A Coruña is not accessible, as it presents problems in welcoming visitors with physical or sensory disabilities in an autonomous, safe, easy and dignified manner. Likewise, these findings could be extrapolated to other localities because they confirm a situation already observed in previous research. Among the main problems encountered during the research were: excessive bureaucracy that slows down the execution of accessibility works or the prioritisation of other interests such as vehicle circulation or aesthetics; lack of training on accessibility for staff working in the tourism sector; lack of adaptation of buildings or the granting of licences to projects that do not take into account the physical and/or sensory disabilities of some of their visitors; lack of a change of perspective on the advantages of accessible tourism (Leiras, 2024).

On the other hand, an Ilunion Blog points out cities that offer accessible tourism, for example Ávila, which is considered one of the most accessible destinations in Spain because it has an accessible route that allows visitors to move comfortably around the main monuments of the city. Another example is Malaga, whose main tourist sites are fully accessible for people with disabilities. There is also Lugo, a city that implemented innovative technologies and successfully improved the accessibility of its streets and monuments. Finally, Tarrasa implemented bridges, lifts and ramps to improve the accessibility of its historic centre (Ilunion, 2023). However, the reality is totally different in rural tourist sites.

The accessibility offers in general in Spain does not exceed 10%, which means that 60% of disabled people do not travel due to a lack of accessibility. However, data in rural environments do not even exist or are unreliable, and precisely this lack of data is nothing more than a symptom of the reality of rural areas (Campos & Rodríguez, 2023). With regard to wine tourism in rural areas, according to the information collected through surveys and interviews during the implementation of this project, it was observed that there is still a lack of accessibility for

people with disabilities and it is necessary to implement additional improvements to lifts or ramps so that people with hearing impairment or reduced visibility can enjoy the tourist experience.

The development of accessible tourism in rural areas can have a positive impact on the development of rural areas (Campos & Rodríguez, 2023). Changing the perception of accessible tourism and seeing it as an investment could lead to several benefits, such as an increase in market share due to the fact that 96% of disabled people travel accompanied, encouraging them to travel at any time of the year as many of these clients do not have work responsibilities, improving the quality of the tourism offer and reinforcing the image of the destination (TUR4all & Impulsa Igualdad, 2024).

- **Italy**

In Italy, from what emerged from the focus groups, some touristic facilities are equipped with means to ease the experience of tourists with disabilities, such as slides, non-slip mats on the stairs or grates to facilitate the movement of wheelchairs. On the other hand, in many facilities there is little to no aid provided. In other cases, it has been reported that the tour was only partially accessible for people with disabilities, resulting in a sense of exclusion.

For what concerns accommodations, the main lacks result in no "ground zero" structures (steps in accessing rooms make it difficult to enter for people in wheelchairs), bathrooms not designed for various kinds of disabilities and so on.

Most of the participants have had experience of rural tourism in places such as wineries, villages or sites.

The focus groups pointed out the need for services providers to clearly state in their websites or social network pages if the structure is equipped to host people with disabilities, since they represent a key source of information and engagement.

Technology turned out to be a helpful tool: the participants believe that the introduction of technology has support the sharing of information and, thanks to this, people can evaluate whether a certain site is suitable for welcoming them or not. Furthermore, it is useful when it integrates knowledge relating to the places being visited, for example QR codes are provided with which to access guided tours - especially essential for

people with visual or hearing disabilities. Another proposed technological support is the introduction of augmented reality in such a way people should be able to visit the place even without being physically present because perhaps the conditions do not allow it.

To obtain these results, accessible tourism should be open to the needs of the disabled, it must make use of a multidirectional approach that involves different areas of intervention. It starts, of course, from the world of hospitality and then affects the world of transport, technology and training. Finally, it must be pointed out the importance of staff training who must always understand the needs of customers with disabilities and to provide assistance, support and personalised services.

- **Serbia**

Wine tourism in Serbia relies on 17 wine routes that reveal the richness and diversity of historical and wine traditions. Wine-growing Serbia is divided into three regions: Central Serbia, Vojvodina and Kosovo and Metohija. Within these regions, there are 22 wine-growing regions, which include 77 sub-regions. Wine tourism allows visitors to get to know wineries, taste different types of wine and explore the natural beauty of rural areas.

However, the situation when it comes to inclusive tourism is quite small, because most wineries were built in the last century, only newly built wineries meet the conditions of inclusive tourism, including wine tourism.

Currently in Serbia, the emphasis is on the construction of modern wineries with new technology, where architects mainly plan accessibility for people with disabilities, by installing and predicting flat surfaces, very rarely elevators, so that some parts still remain inaccessible to inclusive tourism. Why? There are prejudices when it comes to people with disabilities and they are not recognized by winemakers, and partly by tourist workers, as good guests. Opinion in Serbia on whether people with disabilities should travel and visit wineries varies, but there are several key aspects to consider:

- Awareness of the rights of persons with disabilities: There is an increasing awareness of the rights of persons with disabilities in Serbia, including the right to travel and enjoy tourist destinations.
- Civil society organizations and institutions work to raise awareness of accessibility and inclusiveness.

- Accessibility of tourist destinations: Accessibility of wineries and other tourist locations for people with disabilities is crucial. The lack of ramps, wide doors, elevators and other adapted facilities can make travel difficult for people with disabilities.
- Individual perception: Opinion varies from person to person. Some believe that people with disabilities should have the same opportunities to travel as everyone else. Others may have prejudices or lack of understanding about the needs of people with disabilities.
- Legislation: The Law on Prohibition of Discrimination on the Basis of Disability stipulates that facilities in public use must be accessible to persons with disabilities. However, the application of these laws may vary.

In any case, it is important to work to create an inclusive environment and ensure that people with disabilities have equal opportunities to travel and enjoy tourist attractions, including wineries.

- **Slovenia**

In Slovenia most of the touristic sites are trying to adapt the infrastructure for disabled people. Non-slip mats to prevent slippery surfaces, slides, side-bars for better stability are installed. In many cellars installation of the lift is not possible, so participants couldn't see the cellar. Mostly the accommodations near the cellars don't have the access for disabled people. Even if it is written ''ground floor'', sometimes there is a step to enter the facility. Mostly the bathrooms are not designed for disabled people. Some aspects may seem trivial but they are essential to make anyone's stay accessible and pleasant.

As Slovenia is very diverse country, there is no great distance to travel to a rural area of cultural, historical and /or architectural significance. There are areas with those characteristics that are available to people with disabilities and mostly previous search via internet or other research is not needed. In case that proofing is needed, the owners of the facilities are a lot of help for informing about shortcomings or other possible problems visitors can face. If it is possible, the slides, stairlifts or other tools / solutions are installed and also non-slip carpets and handrails are on site. Most of the facilities have chairs or benches to rest, if needed. For people with sensory difficulties such as hearing, it would be advisable

to provide headphones that allow you to listen directly to what the guide is saying; even in cellars, where we can think of listening properly being indoor, the use of headphones would be helpful as the walls produce a rumble that hinders understanding.

● **Greece**

Culture in all its manifestations, material and immaterial, has a multifaceted and high spiritual, educational, aesthetic, symbolic and psychological value. It contributes to the elimination of stereotypes and prejudices, to tolerance and respect for individuality and diversity, and to unbiased democratic dialogue. Ensuring free and unhindered access to culture for all citizens without exception is therefore a matter of social equality and justice, and by extension, a matter of democracy. For this very reason, one of the first concerns of the Greek government is the horizontal design and implementation of a National Action Plan for the Rights of Persons with Disabilities, which will ensure, both institutionally and practically, that persons with disabilities will enjoy unhindered and autonomous professional integration and participation in the social, economic, political and cultural life of the country.

Some of the actions that have been undertaken are the implementation of the construction of lifts or passageways within archaeological sites, with the main example of the slope lift in the archaeological site of Acropolis already in operation and new ones planned for Dikteo Andros and the Upper Town of Monemvasia[1]. It is estimated that from June to October 2021 an average of 300 people (disabled and mobility impaired) visited the Acropolis rock per day. Furthermore, in cooperation with the "Lighthouse for the Blind" association, printed material in 4 languages, special signs and projections are being prepared. Furthermore, in Ancient Messini, disabled persons are facilitated with electric golf carts, while similar care is taken for the archaeological sites in Ancient Olympia, Pella, and Nicopolis.

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[1] https://www.culture.gov.gr/el/Information/SitePages/view.aspx?nID=4029

In Greece, based on research conducted with the help of focus groups in the HeritAccess project, it was found that there is a serious lack of accessibility in rural areas with a particular cultural heritage for people with physical disabilities and older people. In addition, it was found that there are sites of interest in relative proximity, but for a destination to be attractive and worth visiting, it must have a high cultural, historical, architectural and/or artistic value. Based on their previous experience, participants felt that the importance given to the accessibility of the rural areas visited was incomplete and insufficient.

Focus group members provided their observations on the deficiencies they identified in terms of accessibility during their visits to rural destinations, the most significant being the lack of modern buildings and other infrastructure and of designed routes/tours accessible to people with disabilities. Technology is an important tool that needs to be integrated into tourism to support accessibility and help people with disabilities overcome any physical limitations. The members of the focus groups noted that the importance of modern automated tour systems, audiobooks, Braille signs and voice warnings etc. is particularly important, but is missing from the distinguished rural heritage sites in Greece.

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1. Description of the HeritAccess Guide

The development of the HeritAccess Guide will serve as a collection of guidelines on how to manage to make accessible a rural heritage, both architecturally and digitally, so as to shape a plan for those sites with great value in terms of history, culture and traditions. Based on common Mediterranean rural tradition, the guide will contain standards and advice to turn an old almost unused space into a ready-to-be-exploited site, full of historical value and, most importantly, accessible to a wider adult public.

B. Guide Definition and Overview

This result aims at **inspiring rural tourism companies and rural heritage owners and personnel** to follow this project consortium's idea of innovation and bring their businesses and professional/traditional activities into the XXI century. This outcome is strongly related to the necessity of keeping the whole project results sustainable, and transferable to several other surroundings with other inclusiveness needs.

Moreover, the guide will be in favour of the adaptation of that non-formal education that a touristic visit usually gives place. In places like adult centres and associations that support the independence of the disabled people in urban locations, or even big rural interpretation centres or museums with a clear architecture plan for the access to those spots, educational visits are equally guaranteed for all types of visitors. The issue is more related to the small and medium heritage in rural areas where attractiveness is reduced, also because of the impossibility of adapting the spaces of those sites through private initiatives.

In conclusion, the HeritAccess Guide will:

⇒ provide instructions on how to manage and to make accessible a rural heritage site

⇒ promote the adaptation of that non-formal education that a touristic visit usually gives place in adult centres & associations

⇒ support the small and medium heritage in rural areas where attractiveness is reduced due to a lack of private initiatives.

2. Learning Objectives & Outcomes

The learning objectives for the development of HeritAccess Guide could include:

● Understanding the importance of conservation and accessibility of rural heritage sites for historical, cultural and economic reasons.

● Familiarisation with the principles of accessibility in both an architectural and digital context.

● Learning about standards and guidelines specific to the conservation and accessibility of Mediterranean rural heritage.

● Acquiring skills to evaluate and transform old, underutilized sites into valuable heritage sites.

● Recognition of the potential of rural tourism and heritage conservation to promote economic development and innovation.

- Understanding the concept of sustainability in the context of rural heritage conservation and tourism development.

The outcomes from the HeritAccess Guide are the following:

- The target group will be able to recognise the importance of preserving rural heritage sites.

- Readers will be able to apply accessibility principles to both the architectural and digital aspects of heritage sites.

- The target group will be able to apply the standards and guidelines outlined in the HeritAccess guide to improve the accessibility and historic value of rural heritage sites.

- Readers will develop the skills necessary to assess, plan, and execute transformations of underutilised sites into sustainable heritage sites.

- The focus group will identify opportunities for innovation and modernization in the rural tourism and heritage sectors.

- Readers will understand the importance of inclusivity to ensure the long-term viability and impact of heritage conservation and tourism initiatives.

C. Content of the HeritAccess Guide

HeritAccess: access to culture and heritage in rural surroundings through the interactive digital experience

PROJECT No 2022-1-ES01-KA220-ADU-000086106

HeritAccess Guide

Module N₀. 1 - Accessibility to cultural and rural heritage sites

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1. Introduction to the topic of accessibility in rural sites

1.1 A matter of social inclusion and cultural identity

Accessibility to cultural and rural heritage sites stands at the intersection of social inclusivity, sustainable tourism, and historic preservation. These sites represent tangible connections to the past, embodying the rich tapestry of human civilization and natural landscapes. From ancient ruins to traditional villages nestled amidst rolling countryside, these heritage sites hold not only historical and cultural significance but also serve as economic engines for local communities. However, despite their inherent value, many heritage sites face accessibility challenges that hinder their inclusivity and deprive certain groups of the opportunity to experience and appreciate their heritage.

Ensuring equal access to cultural and rural heritage sites is not merely a matter of convenience but a fundamental aspect of social justice and human rights. Barriers to accessibility, whether physical, sensory, or socio-economic, limit the ability of individuals with disabilities, elderly visitors, families with young children, and other marginalised groups to fully engage with these treasures of humanity. Addressing these barriers not only enhances the visitor experience but also fosters social cohesion, economic prosperity, and the sustainable preservation of heritage for future generations. In this text, we delve into the multifaceted importance of accessibility to cultural and rural heritage sites, explore the challenges and opportunities it presents, and provide insights into strategies for creating more inclusive and accessible tourism experiences.

Preserving cultural and rural heritage is essential for maintaining cultural identity, fostering community pride, and promoting sustainable tourism (UNESCO, 2013). Accessible heritage sites play a vital role in preserving cultural identity by enabling diverse communities to connect with their shared histories and traditions. Moreover, accessibility promotes social inclusion by providing equal opportunities for participation and engagement among individuals with disabilities, elderly populations, and other marginalized groups.

1.2 HeritAccess: inclusion and diversity in the field of adult education

HeritAccess is the project framed in the Erasmus+ Programme in the field of adult education aiming to value the incredible heritage represented by rural areas and the impact it can produce by making those accessible and inclusive to adult learners, who do not know about their existence or simply cannot visit those in person for architectural barriers. A great example of that is given by traditional wineries all over Europe.

An ancestral product such as wine has always been present in man's history to witness considering job reforms - that goes from the creation of the cellar building for the right storage of bottles and barrels, until the adaptation of it to produce wine and, in more recent years, to be shown to visitors – and a slight return to the rural area inhabitation. Perhaps, it becomes actually an issue of accessibility and inclusiveness for those willing to experience such an educational visit to the wineries, especially for people in wheelchairs, blind, deaf, and elder people. As very old and precious temples of the rural culture, a lot of wineries keep being as they were, using traditional elaborations procedures or even storage as those were in their very first invention, impeding a sizable part of wine-loving adults from visiting those sites.

The educational value of rural heritage is indirectly proportional to its accessibility: Eurostat (2019) confirmed that the majority of tourists in Europe are older than 65 years old, but, at the same time, those who do not travel have health reasons not to do it. It is key that the collapsed tourism sector will not lose targeted clients to help the economic growth after months of lockdown and government restrictions, as shown by the UN World Tourism Organization (2021) in relation to the COVID-19 pandemic.

In conformity with SDG 2030 number 10 "reduced inequalities", the present proposal has the aim of addressing those cases of adults visiting a rural area of a certain historical value and, for the same reason, not architecturally disposed, nor adapted to provide an educational experience of every other visitor. As the pandemic period challenged also the educational sector with issues related to the usage of ICTs and the adaptation of face-to-face activities to virtual ones, the project proposal furthermore aims at dealing with the upcoming digitalization of guided tours and 3D reconstructions of historical sites to keep the cultural interest high and store ancient treasures all over Europe. All this will happen by promoting upskilling pathways for adult learners and tools, so as to get closer to entertaining educational offers to their targeted audience. Digital literacy is lately a synonym for inclusiveness and that needs to be empowered among all citizens (DigComp).

2. Learning objectives & outcomes

2.1 Building inclusive competences

To enhance accessibility in cultural and rural heritage sites, stakeholders must adopt a holistic approach that encompasses universal design principles, community engagement, and technological innovations. Universal design ensures that heritage sites are accessible to individuals of diverse abilities without the need for special adaptations (Ristic & Pasimeni, 2016). Community engagement fosters a sense of ownership and promotes inclusive decision-making in the planning and management of heritage sites (Simpson & Lang, 2017). Leveraging technology, such as augmented reality and mobile applications, enhances the accessibility of heritage sites by providing multimedia interpretations and navigation assistance (Buhalis & Darcy, 2020).

Through this module, the reader will acquire a set of competencies that will help to develop inclusive skills and behaviours, based on knowledge.

A comprehensive understanding of the significance of accessibility within the context of cultural and rural heritage tourism is possible by exploring its multifaceted importance. Readers will know how accessibility impacts social equity, sustainable development, and the preservation of historical and cultural heritage. Through this objective, they will develop a holistic perspective on the role of accessibility in shaping tourism experiences and community engagement.

A key aspect of this learning journey involves critically analysing the barriers that different groups face in accessing heritage sites. By examining physical, sensory, cognitive, and socio-economic factors, readers will deepen their understanding of the diverse challenges encountered by visitors. This objective fosters critical thinking skills, enabling learners to identify systemic barriers and inequalities and explore potential solutions to improve accessibility for all individuals.

Problem-solving skills can be developed by evaluating strategies for enhancing accessibility and inclusivity in heritage site management. By exploring various interventions, such as infrastructure improvements and inclusive design principles, readers will gain practical insights into creating more accessible and welcoming environments at heritage sites.

Several benefits of accessibility will be acknowledged through this module, especially **economic, social, and cultural benefits** associated with promoting accessibility in cultural and rural heritage tourism. By analysing empirical research and real-world examples, readers will understand how accessibility initiatives contribute to increased visitor engagement, enhanced community well-being, and the sustainable preservation of heritage. This objective encourages learners to critically evaluate the positive impacts of accessibility and advocate for its integration into heritage site management and tourism development practices.

2.2 The importance of research and application

Research has shown that accessible heritage tourism contributes to economic growth by attracting a broader range of visitors and enhancing destination competitiveness (Leask & Fyall, 2006). By removing physical, socio-economic, and informational barriers, heritage sites can create environments that welcome diverse audiences and facilitate meaningful engagements with our shared heritage.

Gaining insights into best practices and case studies from Europe for improving accessibility in heritage tourism is one of the goals that HeritAccess project is aiming for. Research and application allow the responsible agents for heritage management and maintenance to apply theoretical knowledge to real-world examples and identify transferable lessons for their contexts.

Accessibility to rural heritage sites brings a multitude of advantages, not only enriching the experiences of visitors but also fostering socio-economic development and cultural preservation within local communities, determining a win-win approach to rural tourism.

From the visitor's point of view, having the chance to know the rich tapestry of local culture, history, and traditions, by accessing rural heritage sites is a cultural and educational opportunity. By exploring these sites, visitors gain insights into the heritage of the region, fostering cross-cultural understanding and appreciation. Moreover, visiting these sites serves as valuable educational resources, providing visitors with opportunities to learn about historical events, architectural styles, traditional crafts, and indigenous knowledge. These sites serve as outdoor classrooms, engaging visitors of all ages in experiential learning.

Rural heritage sites often offer recreational activities such as hiking, birdwatching, photography, and cultural events. Accessible sites provide avenues for leisure and relaxation, allowing visitors to escape the hustle and bustle of urban life and connect with nature and heritage in serene settings.

Improved accessibility can also stimulate tourism development in rural areas, attracting visitors from near and far. This influx of tourists contributes to local economies through spending on accommodations, dining, shopping, and recreational activities, thereby creating job opportunities and supporting small businesses. This is strictly related to the maintenance of the sites in good status, as well as the preservation of the community's cultural identity, as a tourist-driven factor. By showcasing traditional practices, craftsmanship, and oral histories, these sites help to safeguard intangible cultural heritage, instilling a sense of pride and identity among local communities.

Therefore, local communities should be the promoter of the improved and maintained accessibility for the many entrepreneurial activities the rural tourism feed: homestays, guided tours, artisan workshops, and souvenir shops, provide avenues for local entrepreneurs to showcase their talents and generate income, thereby improving livelihoods and reducing rural outmigration.

As locals become active participants in tourism development initiatives, the community would be empowered and motivated to take part in the preparation of the hospitality and the overall destination management.

Lastly, accessible rural heritage sites serve as platforms for cultural exchange and dialogue between locals and visitors. Interactions between different cultural groups foster mutual understanding, tolerance, and respect, breaking down barriers and promoting global citizenship.

In conclusion, the benefits of accessibility in rural heritage sites extend far beyond mere convenience for visitors. By facilitating cultural enrichment, educational opportunities, recreation, tourism development, and community empowerment, accessible heritage sites contribute to the holistic well-being of both visitors and locals, fostering sustainable development and cultural preservation for generations to come. Efforts to enhance accessibility should therefore be prioritised and supported, recognizing the inherent value of rural heritage in shaping vibrant and inclusive communities.

3. Learning contents

Chapter 1 - What determines accessibility in rural heritage sites

Rural heritage sites hold immense cultural, historical, and economic significance, reflecting the roots and traditions of communities. Accessibility to these sites plays a pivotal role in preserving and promoting rural heritage. However, determining factors influencing accessibility in rural heritage is a complex task, as it involves various socio-economic, infrastructural, and geographical considerations.

This chapter aims to delve into the determinants of accessibility in rural heritage, elucidating the multifaceted aspects that shape visitors' ability to reach and engage with these sites.

✓ **Geographical Factors**

Geographical location stands as one of the primary determinants influencing accessibility to rural heritage. Many rural heritage sites are nestled in remote or geographically isolated areas, posing challenges for visitors to reach them. Factors such as rugged terrain, lack of transportation infrastructure, and long distances from urban centres can hinder accessibility.

Moreover, seasonal variations, including weather conditions like heavy rainfall or snowfall, can further impede access to these sites.

✓ **Infrastructure and Digital Development**

The development of infrastructure plays a crucial role in enhancing accessibility to rural heritage sites. Improvement in transportation networks, such as roads, bridges, and public transportation systems, can significantly reduce travel times and make these sites more accessible to visitors. Additionally, the availability of parking facilities, signage, and visitor information centres can enhance the overall visitor experience and encourage more people to explore rural heritage sites.

However, infrastructure development should be balanced with sustainable practices to preserve the authenticity and integrity of these sites.

On this point, the advent of digitalization has profoundly impacted the development of infrastructure, significantly enhancing accessibility to rural heritage sites. While traditional means like roads, bridges, and public transportation systems remain essential, digital technologies offer innovative solutions to overcome geographical barriers and improve visitor experiences. Digital mapping tools and GPS navigation systems provide real-time information on routes, enabling visitors to navigate remote areas with confidence and efficiency.

Moreover, mobile applications tailored to heritage tourism offer interactive guides, historical information, and virtual tours, enhancing the overall visitor experience and engagement. The integration of smart technologies into infrastructure, such as sensor-based traffic management systems and automated parking facilities, further streamlines access to rural heritage sites. Additionally, digital platforms and social media play a crucial role in promoting rural heritage, allowing communities to showcase their cultural treasures, share stories, and connect with visitors worldwide. However, as digitalization continues to evolve, it is essential to ensure inclusivity and accessibility for all users, including those with limited digital literacy or access to technology. By harnessing the power of digitalization, rural heritage sites can become more accessible, engaging, and sustainable, preserving their cultural significance for future generations.

✓ **Socio-Economic Factors**

Socio-economic factors also influence accessibility to rural heritage sites. In the first place, there are economic disparities in educational attainment and awareness about the significance of cultural heritage can affect visitation rates. Then, it would be also a matter of resources, for which efforts to promote inclusive access by offering discounted tickets, implementing community outreach programs, and providing educational resources can help mitigate these socio-economic barriers.

Finally, the affordability of travel and availability of leisure time can impact individuals' ability to visit these sites: low-income communities or busy individuals may face constraints that limit their travel options, especially visiting remote rural heritage sites that might need additional transportation or reduced choice of accommodation for their geographical position.

✓ **Cultural and Institutional Factors**

Cultural perceptions and institutional frameworks shape accessibility to rural heritage sites. Cultural attitudes towards heritage conservation, preservation, and tourism can influence local communities' support for infrastructure development and tourism initiatives.

Additionally, institutional policies and regulations, including land-use planning, zoning ordinances, and heritage protection laws, play a crucial role in managing and safeguarding rural heritage sites. Collaborative efforts involving government agencies, heritage organizations, and local communities are essential to develop inclusive policies that balance conservation with accessibility.

✓ **Community Engagement and Participation**

Community engagement and participation are key determinants in ensuring sustainable accessibility to rural heritage sites. Local communities often serve as stewards of cultural heritage, possessing traditional knowledge and practices passed down through generations. Involving communities in decision-making processes, cultural preservation efforts, and tourism development initiatives fosters a sense of ownership and pride, leading to greater support for accessibility projects. Furthermore, community-based tourism initiatives can empower residents economically while preserving cultural authenticity and enhancing visitor experiences.

Accessibility to rural heritage sites is influenced by a myriad of factors, including geographical considerations, infrastructure development, socio-economic dynamics, cultural perceptions, institutional frameworks, and community engagement. Addressing these determinants requires a holistic approach that integrates sustainable development principles, community participation, and inclusive policies.

Nonetheless, fostering greater accessibility to rural heritage sites can determine a push toward not only preserving the cultural heritage, but also supporting socio-economic development, and environmental stewardship, and prioritising equity, inclusivity, and sustainability to ensure that rural heritage remains accessible and cherished for generations to come.

Chapter 2 – Best Practices

2.1 TUR4ALL: A Collaborative Approach to Accessible Tourism

TUR4ALL is a Spanish initiative that, through the means of technology, champions accessibility in tourism by fostering a collaborative information-sharing platform. This initiative benefits both travellers with accessibility needs and the tourism industry as a whole: https://www.tur4all.com/es/home

Key Benefits for Travelers:

- Leveraging real-user feedback to assess the accessibility of destinations, establishments, and various tourism services. This empowers disabled people to plan inclusive trips with confidence.
- Connecting with other travellers who share the same needs. Sharing experiences to discover hidden gems through user-generated content is one of the main points of the platform.
- Finding essential trip planning information alongside details on TUR4ALL Destinations – municipalities or regions committed to comprehensive accessibility in their tourism offerings.

TUR4ALL for the Tourism Industry:

- Provides valuable insights into user needs, aiding tourism businesses in enhancing accessibility standards across destinations.
- Attract a broader tourist base by showcasing the commitment of a destination/accommodation/site to accessibility through a recognized platform.
- Positioning the tourist activity as an accessible destination, fostering a positive brand image and strengthening competitive edge.

The experts dealing with TUR4ALL have been redacting manuals and guides about specific touristic destinations and types of tourism, to provide hands-on material for the managers and owners, and the staff members of those sites that could easily support physical and sensory inclusion.

Chapter 3 - Practical advice on the general accessibility in rural heritage sites issue

For the general nature of this module, a set of factors are advised to be taken into account when it comes to dealing with inaccessible rural sites, that deserve to be preserved and known from people with some impairment. Whether you are a manager of some rural destination, a staff member of a preserved heritage, or the owner who is willing to commercialise the site, these are some actions to be taken into consideration:

- Begin by conducting thorough accessibility audits of cultural heritage sites to identify barriers and areas for improvement. Consider physical access, signage, interpretive materials, restroom facilities, parking, and transportation options.

- Engage with local communities, disability advocacy groups, heritage organizations, government agencies, and tourism stakeholders to gather input and support for accessibility initiatives. Collaborative decision-making ensures that solutions are inclusive and responsive to diverse needs.

- Create a comprehensive accessibility plan outlining short-term and long-term goals, strategies, and timelines for improving accessibility in cultural heritage sites. Prioritize initiatives based on feasibility, impact, and resources available.

- Invest in accessible infrastructure, including ramps, handrails, elevators, and tactile paving, to ensure that cultural heritage sites are physically accessible to visitors with disabilities. Ensure that pathways are smooth, wide enough to accommodate mobility aids, and free of obstacles.

- Think of providing accessible interpretation through audio guides, tactile exhibits, braille signage, and sign language interpretation to cater to visitors with diverse sensory needs. Make information available in multiple formats and languages to ensure inclusivity.
- Provide training for staff and volunteers on disability awareness, accessibility standards, and best practices for accommodating visitors with disabilities. Empower staff to provide assistance and support to visitors with diverse needs in a respectful and inclusive manner.

- Embrace universal design principles to create environments that are accessible and welcoming to people of all ages, abilities, and backgrounds. Consider the needs of individuals with temporary disabilities, older adults, parents with young children, and people with hidden disabilities.

- Regularly monitor and evaluate the effectiveness of accessibility initiatives, seeking feedback from visitors and stakeholders. Make adjustments and improvements based on feedback and evolving accessibility standards.

- Involve local communities in accessibility initiatives, promoting awareness, education, and advocacy for inclusive cultural heritage. Encourage community participation in maintenance efforts to ensure the long-term sustainability of accessibility improvements.

- Advocate for funding and support from government agencies, philanthropic organizations, and private donors to finance accessibility projects and initiatives. Highlight the social, cultural, and economic benefits of accessible cultural heritage in rural areas.

By following these practical guidelines and fostering a commitment to accessibility, rural communities and businesses can enhance the inclusivity, sustainability, and cultural significance of their heritage sites for the benefit of all visitors.

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HeritAccess Guide

Module N₀ 2 - Challenges and barriers faced by people with disabilities in accessing cultural heritage buildings and sites

Module No. 2 - Challenges and barriers faced by people with disabilities in accessing cultural heritage buildings and sites

1. Introduction to the topic

1.1 What is considered an accessibility barrier

Architectural barriers pose significant challenges for individuals with disabilities, including those with mobility impairments, sensory disabilities, and cognitive limitations. Common architectural barriers include inaccessible entrances, narrow doorways, steep stairs, and a lack of accessible restrooms (Disability Rights Commission, 2004). These physical barriers restrict the ability of people with disabilities to navigate and access cultural heritage buildings and sites independently.

An accessibility barrier refers to any obstacle or limitation that prevents or hinders individuals with disabilities from fully participating in various aspects of life, including but not limited to:

Physical barriers, or obstacles such as stairs without ramps or elevators, narrow doorways, lack of handrails, and inaccessible restroom facilities.

Communication barriers are when information is not provided in formats that are accessible to individuals with disabilities, such as Braille, large print, audio descriptions, or sign language interpretation.

Technological barriers are when digital platforms, websites, software, or electronic devices are not designed to be accessible to people with disabilities, such as lacking compatibility with screen readers or not offering alternative input methods.

Environmental barriers, including factors such as poor lighting, loud noises, or crowded spaces can create difficulties for individuals with sensory disabilities.

Policy and legal barriers refer to laws, regulations, or policies that do not adequately protect the rights of individuals with disabilities or fail to enforce accessibility standards.

Attitudinal barriers, whenever prejudices, stereotypes, or misconceptions are held by individuals or society at large that contribute to the exclusion or marginalization of people with disabilities (Buhalis & Darcy, 2011).

Financial barriers and inadequate support services further exacerbate inequalities in cultural participation (Peters, 2010).

Overall, accessibility barriers can manifest in various forms and contexts, making it challenging for individuals with disabilities to fully participate in society, access services, and enjoy equal opportunities. Removing these barriers is essential for promoting inclusivity, equality, and the full participation of all individuals, regardless of their abilities.

1.2 Cultural heritage and disability

Cultural heritage plays a significant role in shaping societal norms, values, and identities. However, it's essential to recognize that historical attitudes and practices regarding disability have often been exclusionary or discriminatory. People with disabilities have frequently been marginalized or overlooked within cultural heritage narratives and representations. Here's some insight on the binomial culture – disability:

Cultural heritage sites, museums, and historical narratives often lack representation of people with disabilities. This absence perpetuates the idea that disability is abnormal or unworthy of acknowledgement within cultural contexts.

Many cultural heritage sites and institutions are not designed with the needs of people with disabilities in mind. Lack of ramps, elevators, tactile exhibits, and alternative formats for information can create significant barriers to access.

Historical attitudes towards disability have often led to the segregation or exclusion of people with disabilities from participating in cultural activities. This exclusionary mindset may continue to influence accessibility efforts in cultural heritage spaces today.

Efforts to reinterpret cultural heritage through a disability-inclusive lens can help address these issues. This might involve incorporating disability perspectives into historical narratives, providing accessible resources and exhibits, and actively involving people with disabilities in decision-making processes.

On this point, it has to be highlighted that people with disabilities have their own unique cultural identities and experiences that contribute to the diversity of human heritage. Recognizing and celebrating this diversity is essential for creating inclusive cultural spaces that reflect the full spectrum of human experience.

Disability advocacy groups and organizations play a crucial role in raising awareness about the intersection of disability and cultural heritage. By advocating for greater accessibility and representation, they help ensure that cultural heritage spaces are welcoming and inclusive for all.

2. Learning objectives & outcomes

2.1 Detection of the challenges

Developing competencies in detecting and identifying challenges and barriers faced by people with disabilities in accessing cultural heritage buildings and sites involves a combination of skills, knowledge, and attitudes. Here are some competencies that can be developed in this area:

- Ability to identify physical, communication, and attitudinal barriers within cultural heritage buildings and sites through systematic observation and evaluation. This may involve assessing factors such as architectural design, signage, information accessibility, and staff attitudes.

- Effective communication skills to engage with people with disabilities, disability advocacy groups, heritage site managers, architects, and other stakeholders. Collaborative approaches are crucial for understanding diverse perspectives and implementing inclusive solutions.

- Capacity to devise innovative solutions to address accessibility challenges in cultural heritage settings. This may involve adapting existing structures, developing alternative formats for information, or leveraging technology to enhance accessibility.

- Cultivating empathy and understanding towards the experiences and needs of people with disabilities within cultural contexts. Recognizing the importance of preserving cultural heritage while also ensuring it is accessible to all individuals.

- Participating in training programs, workshops, and courses focused on disability awareness, accessibility best practices, and inclusive design principles. Continuous learning is essential for staying updated on emerging trends and evolving accessibility standards.

- Advocating for the rights of people with disabilities to access and enjoy cultural heritage sites on an equal basis with others. Empowering individuals with disabilities to voice their concerns and actively participate in decision-making processes related to accessibility.

2.2 Knowledge of disability and its legislation

Familiarity with various types of disabilities (physical, sensory, cognitive, etc.) and their specific access requirements is necessary when it comes to working on the accessibility of a site. This includes understanding mobility aids, communication tools, and assistive technologies commonly used by people with disabilities. Also, understanding relevant legislation, and accessibility standards set by organizations like the World Health Organization (WHO) or the European Union (EU), is key to bait the barriers and creating a safe and non-discriminatory environment for all people:

United Nations Convention on the Rights of Persons with Disabilities (UNCRPD): is an international human rights treaty that outlines the rights of people with disabilities, including accessibility to various aspects of society, including cultural heritage. Many European countries are signatories to this convention and are obligated to implement its provisions.

European Accessibility Act (EAA): is a significant piece of legislation aimed at improving the accessibility of products and services across the European Union (EU). It covers a wide range of sectors, including banking, transportation, e-commerce, and public services. While not specifically focused on cultural heritage, the EAA indirectly contributes to enhancing accessibility in various aspects of life.

Web Accessibility Directive: the directive requires public sector websites and mobile applications to be accessible to people with disabilities, particularly concerning web content and services. It aims to ensure that digital services provided by public authorities are accessible to everyone, including those with disabilities.

European Heritage Label: is a designation awarded to sites, monuments, and cultural assets that celebrate European history and values. While promoting cultural heritage, efforts are made to ensure that these sites are accessible to visitors, including those with disabilities.

European Standards for Accessibility of the Built Environment: European standards and guidelines exist to ensure that buildings and infrastructure are designed and constructed with accessibility in mind. These standards cover aspects such as ramps, elevators, signage, door widths, and accessible toilets.

3. Learning contents

Chapter 1 Literature Review on Disability and Accessible Tourism

1.1 Understanding Disability

Disability is a diverse and multifaceted aspect of human experience that encompasses a wide range of conditions, impairments, and challenges. It impacts individuals in various ways, influencing their mobility, communication, sensory perception, and daily activities. However, with the advancement of technology and the development of specialized aids, many people with disabilities can overcome barriers and lead fulfilling lives. This chapter explores the different types of disabilities and the main aids used by disabled individuals to enhance accessibility and improve their quality of life.

Physical Disabilities

Physical disabilities affect an individual's mobility and physical functioning. This category includes conditions such as paralysis, limb loss, muscular dystrophy, and cerebral palsy. People with physical disabilities may use mobility aids like wheelchairs, crutches, walkers, and prosthetic devices to assist with movement and daily tasks.

Sensory Disabilities

Sensory disabilities involve impairments in hearing, vision, or both. Deafness, blindness, and low vision are common sensory disabilities. People with sensory disabilities may use aids such as hearing aids, cochlear implants, white canes, guide dogs, and Braille devices to facilitate communication, navigation, and access to information.

Cognitive Disabilities

Cognitive disabilities affect cognitive functions such as memory, learning, attention, and problem-solving. Conditions like intellectual disabilities, autism spectrum disorders, and traumatic brain injuries fall under this category. Individuals with cognitive disabilities may use aids like assistive technology devices, visual schedules, communication boards, and personalized support services to enhance their independence and participation in daily activities.

Developmental Disabilities

Developmental disabilities typically manifest during childhood and affect a person's physical, cognitive, or emotional development. Conditions such as Down syndrome, cerebral palsy, and autism spectrum disorders are examples of developmental disabilities. Individuals with developmental disabilities may benefit from early intervention programs, specialized education, therapy services, and assistive devices tailored to their specific needs.

- o **Main Aids Used by Disabled People**

Mobility aids assist individuals with physical disabilities in moving around and performing daily tasks. Wheelchairs, both manual and powered, are among the most common mobility aids. Other aids include crutches, walkers, mobility scooters, and orthotic devices designed to support and stabilize the body.

Assistive technology encompasses a wide range of devices, software, and tools designed to enhance the functional capabilities of people with disabilities. Examples include screen readers, speech-to-text software, communication devices, adapted computer peripherals, and environmental control systems. Assistive technology enables individuals with disabilities to access information, communicate effectively, and engage in various activities independently.

Sensory aids help individuals with hearing or vision impairments overcome barriers to communication, navigation, and information access. Hearing aids amplify sound for people with hearing loss, while cochlear implants stimulate the auditory nerve directly. Visual aids include magnifiers, screen readers, Braille displays, and tactile markers, which enable individuals with vision loss to read, navigate digital interfaces, and access printed materials.

Pets can indeed serve as sensory aids for individuals with disabilities, particularly in providing emotional support and companionship. As for **guide dogs**, also known as service animals, play a crucial role in assisting individuals who are blind or visually impaired in navigating their environment safely and independently. These highly trained dogs undergo extensive training to perform specific tasks and provide essential support to their handlers.

Understanding the diverse nature of disability and the aids available to support individuals with disabilities is essential for promoting inclusion, accessibility, and equal opportunities. By recognizing the different types of disabilities and the specific needs of individuals, society can work towards creating environments that accommodate everyone's abilities and foster a more inclusive and accessible world. Through the continued development and utilization of aids and assistive technologies, people with disabilities can overcome barriers, achieve independence, and actively participate in all aspects of life.

1.2   European Legislation on Disability

o   **European Accessibility Landscape**

Accessibility in the built environment is gaining increasing attention within the European Union (EU), underscoring the commitment to fostering equal access and participation for all citizens, irrespective of their abilities. Below is a comprehensive overview of the current legislation and proposed standards that are driving accessibility enhancements across Europe.

1. The European Accessibility Act (EAA): Enacted in 2019, the EAA sets forth minimum accessibility requirements for various products and services, encompassing elements of the built environment (Annex III). While not exhaustive, it serves as a foundational framework for member states to implement.

2. National and Regional Regulations: EU member states maintain their own sets of national and regional regulations, continually refining accessibility provisions. These regulations often delineate specific aspects such as building codes and access to cultural heritage sites. Some nations, as highlighted in the analysis by the European Union Agency for Fundamental Rights (https://fra.europa.eu/en), have established mandatory accessibility standards for the construction and renovation of public structures.

The EU Commission is actively engaged in developing harmonized accessibility standards aimed at providing detailed technical specifications for achieving accessibility across diverse contexts. The objective is to establish a uniform approach throughout member states, thereby streamlining compliance for both businesses and public entities.

o   **Focus on Cultural Sites:**

1. The Marrakesh Treaty: Although not exclusive to the EU, the Marrakesh Treaty plays a significant role internationally. It mandates member states, including many EU countries, to eliminate copyright obstacles hindering the creation of accessible formats for printed materials. This directly enhances access to cultural content in museums, libraries, and archives.

2. EU Cultural Policy Initiatives: EU initiatives in the realm of cultural policy frequently underscore the importance of accessibility. Programs like the European Year of Cultural Heritage (2018) have emphasized the imperative of inclusive access to cultural sites.

The efficacy of legislation and standards hinges on their implementation and enforcement by member states, which can vary across the EU.

Preserving accessibility while conserving the historical integrity of cultural heritage sites poses a multifaceted challenge. It necessitates finding solutions that reconcile accessibility requirements with the imperative of safeguarding cultural heritage.

The European accessibility landscape is dynamic and continually evolving. The enactment of the EAA and the proposal of harmonized standards signify relevant strides toward fostering a more inclusive built environment. However, sustained efforts are indispensable to ensure effective implementation, address the unique challenges of cultural sites, and ultimately realize a Europe where everyone can fully partake in its diverse cultural offerings.

- ▪ **<u>Note</u>**:

For further insights, additional resources can be explored through the European Commission, the European Disability Forum, and national accessibility organizations of specific EU member states.

1.3   European entities working on creating Accessible Tourism

These resources can be a valuable starting point for travellers with disabilities planning a cultural or rural getaway in Europe. By working together, these organizations are helping to make these unique tourism experiences accessible to everyone.

The European Network for Accessible Tourism (ENAT): A non-profit organization with a pan-European reach, ENAT works to mainstream accessibility in all aspects of tourism. They offer a variety of resources, including training programs, research, and good practice examples to make tourism more inclusive for everyone: www.enter-network.eu

Accessible Travel Europe: This online resource provides information on accessible destinations, accommodation, and transport options across Europe. They also offer travel tips and advice for travellers with disabilities: disabledaccessibletravel.com

Wheelchair Travel: A commercial website offering travel information and booking services specifically tailored to travellers with mobility impairments. They cover a wide range of destinations in Europe and beyond: wheelchairtravel.org

National Tourism Organizations: Many national tourism organizations in Europe have dedicated sections on their websites that provide information on accessible tourism options within their respective countries.

These resources can be a valuable starting point for travellers with disabilities planning a trip to Europe. By working together, these organizations are helping to make tourism a more inclusive and enjoyable experience for everyone.

From a more rural point of view, the following are the platform that facilitate disabled travel organisations in Europe.

European Federation of Rural Tourism (RURALTOUR): This professional organization represents the interests of rural tourism providers across Europe. They advocate for policies that support the development of sustainable and accessible rural tourism experiences: www.ruraltour.eu

European Charter for Sustainable Rural Tourism: This initiative, launched by the European Commission, encourages rural tourism destinations to adopt responsible practices that ensure accessibility, environmental protection, and the preservation of cultural heritage.

Relais & Châteaux: This renowned hospitality group includes many charming properties located in rural and cultural settings across Europe. Many Relais & Châteaux properties are committed to accessibility and offer inclusive experiences for guests with disabilities.

National and Regional Rural Tourism Associations: Many European countries and regions have their own associations dedicated to promoting rural tourism. These organizations often provide information on accessible rural destinations and experiences within their respective areas.

Chapter 2 Identification of HeritAccess disabled group's needs

2.1 Identification of HeritAccess disabled and elderly target group's needs

With the aim of approaching and acknowledging the rural heritage in the region of project development, HeritAccess consortium developed a set of activities that defined the starting point for the creation of a technological reconstruction of selected inaccessible wine rural heritage.

50 people with motor, auditive, and visual disabilities have been invited to focus group sessions in Greece, Italy, Serbia, Slovenia and Spain, to assess the challenges and barriers they faced when visiting rural heritage sites.

Each activity followed a methodology, for whom the group of participating individuals had to answer a set of questions, around these main points:

- Their last rural tourism experience and the accessibility of the same;

- The importance they give to the historical/artistic/architecture/sustainability/accessibility value (including distance) of a rural destination;

- Their opinion and knowledge of technology applied in rural heritage sites to allow its access, whether physical or informational;

- The degree of knowledge of 360º panoramas and virtual technology, and the relevance they would give to them;

- Further free suggestions.

In the attempt to answer the above-listed areas of questions, a great majority of participants highlighted the following issues and challenges common to many rural sites and cultural and wine heritage in the HeritAccess project countries:

- Many disabled and elderly participants often renounce visiting a rural site because of the total lack of access.

- The distance needed to reach a rural area is not a real issue if the cultural, historical, and/or architectural significance of the site to be visited is high.

- Drawing from their past experiences, participants expressed dissatisfaction with the incomplete and insufficient attention given to the accessibility of rural areas they had visited. Their experiences revealed more attention provided to the development of the visit, rather than the accessibility to that, both physical and informational.

- Lack of trained personnel on the overall management of disabled visitors is one of the main mentioned topics among the focus group attendants.

Recognizing the importance of technology in supporting accessibility and helping individuals with disabilities overcome physical limitations, participants unanimously agreed on its value in enhancing tourist experiences and accessibility in tourist sites. They shared experiences where digital devices and technological applications, such as modern automatic tour systems, audiobooks, braille markings, and voice warnings, improved their understanding of visited sites and contributed to enhancing accessibility in rural destinations.

Among the barriers that participants detected and shared in the frame of the focus group activities, are:

- Absence of panels in Braille, or audio facilities, and wrong lighting in the different tourist areas or wrong signposting;

- Lack of easy-reading informative panels or a different pace of the visit for people with cognitive disabilities;

- Need for illuminated panels, with correct font size, with concise sentences and simple words, without getting creative. Also, good lighting, large buttons, adequate height of seats and benches;

- Access ramps and doors that are sliding or opening outwards that are adequate and of the correct size;

- Lack of adapted and accessible web pages of the destination, with sound buttons, a voice guide, easy to read and with clear words and instructions, to get the information needed before reaching the rural site to visit;
- Inaccessible services complementary to the touristic activity, such as restaurants, accommodation and transportation.

In conclusion, the HeritAccess consortium embarked on a significant initiative to engage individuals with disabilities in assessing and addressing the accessibility challenges faced when visiting rural heritage sites. Valuable insights were gained into the barriers encountered and the potential solutions to enhance accessibility.

The findings underscored the significant impact of accessibility barriers on individuals' ability to visit and fully experience rural heritage sites. These challenges not only hindered individuals' ability to access rural sites but also limited their enjoyment and understanding of cultural and wine heritage.

However, amidst these challenges, participants recognized the potential of technology to improve accessibility and enhance tourist experiences. This includes improving infrastructure, providing training for personnel, and integrating accessible technology solutions.

Moving forward, collaboration between stakeholders, including government agencies, heritage organisations, and disability advocacy groups, is essential to ensure that all individuals, regardless of their abilities, can access and enjoy Europe's rich cultural and wine heritage. The insights gained from the HeritAccess project will serve as a valuable resource for guiding future efforts to promote inclusivity and accessibility in rural tourism destinations, such as disability awareness training for heritage site staff and collaboration with disability advocacy groups, can help foster a culture of inclusion and accessibility (Disability Rights Commission, 2004).

2.2 Identification of HeritAccess target group's needs through the rural sites' survey

With the same aim as the focus group activity, the HeritAccess consortium of partners engaged in a survey activity that involved 105 rural sites active in rural and wine tourism activities. The surveyed exponents were visitable wine cellars, accommodations, restaurants, tourist guides, rural site managers, entrepreneurs, and local tourism technicians.

The survey investigated the degree of accessibility of the wine tourism sites, for the cultural and rural heritage they entail are visited by hundreds, even thousands of visitors every year. Nonetheless, some of these surveyed locations are not accessible to all types of visitors, leaving many other tourists out from experiencing an immersive tour of the location.

75 sites have been selected based on their historical/artistic/architectural value to be inserted in the HeritAccess Database, as a comprehensive collection of rural heritage that can improve its accessibility, based on the present guide shared advice and guidelines.

What the survey activity and database making highlighted is:

- Most ancient sites are not sensible to accessibility standards;

- Underground floors do not allow easy access to the irregularity of the steps;

- People with reduced mobility are the most discriminated individuals in reference to access to the visits;

- Webpages from this location are the primary means of booking or communication prior to the visits, and the majority of those are not accessible.

Based on the above-mentioned findings, HeritAccess Digital Experience (https://heritaccess.novopano.de/en/en-home.html) is aimed at showing that through technology it is possible to bring accessibility to those ancient rural sites that cannot be architecturally modified. Over the 75 database locations, 5 have been selected (one per country) to demonstrate that visual, auditory and physical disabilities can be covered through 360º panorama technology.

Chapter 3 – Practical advice

Throughout the described HeritAccess project activities developed for the identification of the target groups' needs, it has been possible to trace some easy-to-apply suggestions in the field of wine and rural tourism and cultural heritage preservation and promotion.

The focus of the attention should go on:

- **The information provided**. May it be the website to be consulted prior to the visit, or the one provided during the experience, this has to be clear and easy to follow considering low-skilled adults, sensory disability, and elderly users;

- **The standards of accessibility**. Many frameworks and regulations exist and are available (as mentioned in this module at point 2.2) to help entrepreneurs and managers get in line with common parameters and label their own business or location as friendly to all types of visitors.

- **The collaborative approach**. Tourism providers should and can rely on experts who help adapt spaces and information for the delivered visits. These organisations assess, analyse and release solutions to improve inclusion and accessibility with and without technology support, maintaining the aim of their mission always present, which is advocating for the rights of people with disabilities to access and enjoy cultural heritage sites on an equal basis with others. One of the main improvements can be obtained by training the tour guides and the site staff to create the best touristic and educational experience for all visitors despite limitations and conditions.

- **The sensory experience**. In order to provide the same feeling to all visitors, staff, managers and owners of rural and wine tourism destinations must get creative. For example, to simulate the descendants of an underground cellar to a visually impaired person, a cold sensation can be simulated, as well as the smell of mould and yeasts, and the roughness on the walls that usually constitute the location.

By prioritizing these areas of focus and implementing targeted strategies, equal access and enjoyment of cultural heritage sites and rural tourism destinations for individuals of all abilities can be perpetrated. This collaborative effort, just like showed by the HeritAccess Cooperation Partnership, underscores the commitment to advocating for the rights of people with disabilities and fostering a more inclusive and accessible tourism landscape.

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HeritAccess: access to culture and heritage in rural surroundings through the interactive

digital experience

PROJECT No 2022-1-ES01-KA220-ADU-000086106

HeritAccess Guide

Module N₀. 3 - Guidelines for wheelchair accessibility

Module No. 3 - Guidelines for wheelchair accessibility

1. Introduction to the topic

1.1 About wheelchair accessibility

Wheelchair disability refers to a condition that limits an individual in mobility or ambulation due to physical impairments, injuries, or health conditions, necessitating the use of a wheelchair for mobility assistance. People with wheelchair disabilities may face challenges in independently accessing various environments, participating in activities, and engaging in daily tasks that require mobility.

This definition draws from the International Classification of Functioning, Disability and Health (ICF) by the World Health Organization and the United Nations Convention on the Rights of Persons with Disabilities (CRPD), which recognizes personal mobility, including access to wheelchairs, as a fundamental right for individuals with disabilities.

Wheelchair accessibility is a fundamental aspect of ensuring equal access to cultural heritage buildings and sites for individuals with mobility impairments. Guidelines for wheelchair accessibility encompass principles of universal design, technical standards, assistive technologies, and collaborative approaches to create environments that are inclusive and accessible to people of all abilities.

Universal design principles emphasize the creation of environments that are usable by people of diverse abilities, ages, and backgrounds without the need for adaptation or specialized design (Americans with Disabilities Act (ADA) Accessibility Guidelines). Key principles include equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, and appropriate size and space for approach and use (Centre for Accessible Environments, 2017).

Technical standards and guidelines provide specific requirements and recommendations for wheelchair accessibility in buildings and public spaces. These standards cover a range of features, including accessible entrances, routes, doors, ramps, elevators, signage, and facilities such

as restrooms and parking (Access Board, 2019). Compliance with these standards ensures that heritage sites meet minimum requirements for accessibility and provide a barrier-free environment for wheelchair users.

Assistive technologies and mobility aids play a critical role in facilitating independent mobility and access for wheelchair users. Powered wheelchairs, manual wheelchairs, mobility scooters, and other assistive devices enable individuals with mobility impairments to navigate and explore heritage sites safely and comfortably (Peters, 2010). Furthermore, innovative technologies such as stairlifts, platform lifts, and portable ramps can provide temporary access solutions in heritage buildings with architectural barriers.

Collaboration with disability advocacy groups, organizations, and individuals is essential for ensuring that accessibility initiatives are informed by the needs and perspectives of people with disabilities. Engaging with disability advocates and consulting with wheelchair users during the design and planning process can help identify potential barriers and inform inclusive design solutions (Disability Rights Commission, 2004). Moreover, ongoing dialogue and partnership with disability communities foster a culture of inclusion and accessibility within heritage organizations and institutions.

In conclusion, guidelines for wheelchair accessibility encompass universal design principles, technical standards, assistive technologies, and collaborative approaches to create environments that are inclusive and accessible to people of all abilities. By adopting these guidelines, stakeholders can create barrier-free environments that promote equal access, participation, and enjoyment of cultural heritage experiences for wheelchair users.

1.2 Wheelchair accessibility in rural heritage

One area where accessibility efforts are particularly crucial is in rural heritage sites. While major cities often have more developed infrastructure to accommodate wheelchair users, rural areas may present unique challenges due to historical architecture, uneven terrain, and limited resources. However, ensuring accessibility in these settings is essential for allowing everyone to enjoy and appreciate Europe's rich cultural heritage.

In response to these challenges, initiatives aimed at improving wheelchair accessibility in rural heritage sites have been gaining momentum. These efforts involve not only making physical adjustments to existing structures but also raising awareness and promoting a culture of inclusivity among heritage site managers and local communities.

Despite these ongoing efforts, there is still work to be done to ensure universal access to Europe's rural heritage. Recognizing this, various legal frameworks have been established at both the national and European levels to safeguard the rights of individuals with disabilities and promote accessibility standards.

At the European level, the European Accessibility Act, adopted in 2019, serves as a landmark legislation aimed at harmonizing accessibility requirements for goods and services across EU member states. This act encompasses a wide range of areas, including transportation, communication, and public infrastructure, with the overarching goal of creating a more inclusive society for all Europeans, regardless of their abilities.

Additionally, many European countries have enacted their own laws and regulations pertaining to accessibility, which often include provisions specifically addressing heritage sites and cultural institutions. These legal frameworks not only set out guidelines for ensuring physical accessibility but also emphasize the importance of providing adequate information and support services to individuals with disabilities.

2. Learning objectives & outcomes

2.1 Developing Competencies in Wheelchair Accessibility

Engaging with the text on wheelchair accessibility provides recipients with the opportunity to develop a range of competencies essential for fostering inclusivity and promoting accessibility for individuals with disabilities.

The guidelines will provide their readers with insight into the significance of wheelchair accessibility and its implications for individuals with disabilities, broadening their comprehension of accessibility principles and concepts. Through exploration of international conventions and

national legislation highlighted in the text, the module recipients will enhance their awareness of legal rights and obligations pertaining to wheelchair accessibility, and the overall benefits for disabled visitors and the touristic field in rural and winemaking surroundings.

Knowledge of accessibility standards and guidelines applicable to various settings, especially wine tourism ones, will enable the sector's staff and managers to implement measures to enhance wheelchair accessibility effectively. Moreover, the text will equip recipients with skills in designing and planning accessible environments, facilitating the implementation of features that enhance physical or architectural accessibility.

Nonetheless, the readers will develop certain problem-solving abilities and innovative approaches to address barriers to wheelchair accessibility, fostering creativity in overcoming challenges.

Engagement with the text will deepen recipients' empathy and understanding of the experiences of individuals with disabilities, promoting a culture of inclusivity and empathy, driving social change and promoting policies that enhance accessibility. Collaboration with stakeholders will be therefore encouraged, by promoting partnership skills essential for working effectively with diverse groups to promote wheelchair accessibility and create inclusive environments.

These competencies are integral to empowering recipients to play an active role in promoting wheelchair accessibility and fostering inclusive societies that accommodate individuals with disabilities effectively.

2.2. Benefits for the physically disabled visitor

Despite the physical barriers, visiting a rural heritage site allows individuals to experience and appreciate the cultural, historical, and natural significance of the location. This enriches their understanding of heritage and history, fostering a deeper connection to their surroundings. Overcoming obstacles to accessing rural heritage sites can instil a sense of accomplishment and empowerment in physically disabled individuals. It demonstrates their resilience and determination to explore and enjoy cultural attractions despite limitations.

Also, visiting heritage sites provides opportunities for social interaction and engagement with friends, family, or fellow visitors. Sharing experiences and creating memories in a communal setting can enhance social connections and combat feelings of isolation.

Experiencing first-hand the challenges of accessing rural heritage sites raises awareness about the importance of accessibility and inclusivity. Physically disabled individuals and their companions may become advocates for improving accessibility in heritage sites and other public spaces.

Engaging in leisure activities such as visiting heritage sites contributes to psychological well-being by reducing stress, enhancing mood, and promoting a sense of fulfilment. Despite the challenges, the experience of exploring a rural heritage site can bring joy and satisfaction.

Overall, physically disabled individuals contribute to the preservation and maintenance of cultural heritage: their interest and support help ensure the continued significance and relevance of these sites for future generations.

3. Learning contents

Chapter 1 – Literature review on Physical Accessibility

Physical or architectural accessibility, also known as built environment accessibility, pertains to removing barriers for individuals who face challenges in walking safely or require support aids. This includes people using wheelchairs, baby strollers, or those with mobility limitations. Measures to improve physical accessibility encompass various adjustments and infrastructure enhancements. Examples include:

- Reconsidering the placement height of intercoms, buttons, or pushbuttons to ensure they are reachable for individuals of varying heights or mobility levels.

- Increasing the width of sidewalks to accommodate wheelchairs and strollers comfortably.

- Installing access ramps with gradual slopes to facilitate entry into buildings or spaces for wheelchair users and individuals with mobility aids.

- Incorporating elevators in transportation stations to enable vertical movement between different levels, ensuring access for all passengers.

- Implementing elevated platforms at transportation stops to facilitate boarding and disembarking from vehicles, particularly for individuals with mobility challenges.

- Installing bar and handle systems along pathways or within buildings to provide stability and support for individuals navigating the environment.

- Providing adapted bathrooms with features such as grab bars, accessible sinks, and toilets to accommodate the needs of people with disabilities or mobility limitations.

These measures aim to create inclusive environments where individuals of all abilities can navigate safely and independently, promoting accessibility and equal participation in society. The same came a series of international – especially the UNWTO recommendations – and national frameworks that allowed experts to elaborate specific conditions and standards that can be applied to certain cultural contexts like it is the case of HeritAccess Erasmus+ Partnership purpose of making accessible the rural sites with strong wine culture and heritage.

In this case, referring to wine tourism experiences is necessary, and mentioning entities that work on all the aspects of tourism accessibility as well. Among all, the TUR4ALL project and its outputs have been a strong basis for the visualization of some solutions in the studied topic. It is a Spanish initiative that brought PREDIF and Fundación Vodafone to build an App and web platform for disabled users to get accurate information checked by experts about the accessibility of tourism establishments across Spain. The attentive analysis of this project outputs, together with the insights on this Guide's module 2 explained activities developed transnationally throughout the first stage of HeritAccess project, allowed the partnership to support this module with study cases, and wheelchair accessibility guidelines in rural wine tourism visits.

The present guide, and this module more in detail, are focused on those reasonable changes that every site manager can implement with less effort than the disabled individual. Following the guidelines towards universal accessibility is a competitive aspect not to underestimate.

Chapter 2 - Best practices of wheelchair accessibility

Considering the many aspects that a travel experience entails – transportation, accommodation, restaurants, entertainment –, it is indeed relevant to share experiences that go further than a single winery visit. From Spain, some selected examples of physical and architectural accessibility in winemaking regions, where visits to wineries are the main cultural activity to endure.

1.Bodega Hotel FyA, in La Rioja Alta wine region.

The winery provides wheelchair-accessible visits to its establishment, and adapted accommodation as well, with an informative publication that details the features of the location. The applied measures that guarantee access are:

- A safety rope is provided in the bathroom for emergencies.

- Sink positioned at a lower height for accessibility.

- Toilet raised for ease of use.

- Toilet equipped with grab bars for support.

- Wheelchair-adapted facilities.

- Entire unit designed to accommodate wheelchairs.

- Elevator access is available for reaching the upper floors.

2. Bodegas Fundador, in Marco de Jerez.

The winery develops wine tourism activities and restaurant services based on the conducted accessibility audit, which meticulously assessed the establishment's accessibility features and the inclusivity of its services. Additionally, its personnel actively engage with multiple associations representing individuals with various types of disabilities, fostering collaboration and gathering valuable insights to enhance accessibility further. Its accessibility features are:

- Removal of architectural barriers.
- Adapted restrooms in common areas.
- Accessible routes throughout the winery, shop, and tasting room.

3. "Virgen de las Viñas bodega y almazara", winery and museum in La Rioja Oriental region.

Its good practice is based on the removal of architectural barriers to facilitate access to the museum and the caves, and the reserved parking.

The winery counts with:

- Guided tour of the facilities.
- Visit to the contemporary art museum.
- Exploration of the caves.
- Restrooms adapted for people with reduced mobility.

All the mentioned practices are benchmarks in their areas and boost inclusive improvements that bring added value and competitiveness to their economic activities. This is about getting that percentage of disabled visitors to choose a location for its vision, and openness to diversity.

Chapter 3 - Practical advice (Checklist)

Incorporating accessibility means that the experience can be enjoyed by all individuals in conditions of comfort, safety, and as autonomously as possible. The significance of covering the entire touristic accessibility value chain is rooted in the perception of the tourist experience as a comprehensive whole. Nonetheless, in this chapter, only the physical accessibility advice will be shared in the format of a checklist.

REQUIREMENTS	YES/NO
Access to the location	
Reserved parking close to the location entrance.	
At least 1 accessible entrance free from unevenness or with a difference in level overcome by a ramp or accessible elevator.	
Intercoms and call systems featuring both video and voice options, located at a maximum height of 1.20 m.	
Access doors preferably with folding or sliding openings, with automatic operation if possible.	
Doors along accessible routes and accommodations with a passage width of at least 90 cm, provided by a single leaf, and a free passage width of at least 85 cm for folding doors or 80 cm for sliding doors.	
Doors are lightweight and easily opened if manually operated.	
The area before and after the access door to the building must be horizontal with a free space of at least 1.50 m in diameter.	
Glass doors marked with horizontal stripes or a contrasting coloured logo. Stripes have to be 5 to 10 cm wide, placed between 0.85 and 1.10 m for the first set and between 1.50 and 1.70 m for the second set	
Reception area	
The reception area with an approach space, such as a counter or table, free from obstacles, allowing wheelchair users to approach and utilize the space for any necessary procedures.	
Waiting areas must have accessible seats or benches, with backrests and armrests, which can be used by people with mobility problems reduced. Legs support to stand up is also recommended.	
For the guided visits, it is recommended to have some wheelchair loan for visitors with reduced mobility.	
Passages in-between spaces have to consent to free movement with the wheelchair or stroller.	
Passage to a different level	
Stairs must have a minimum free width of 1.20 m.	
The beginning and end of the stairs will be marked with a strip of pavement in a contrasting colour and different texture.	
All steps will be of the same height, without protrusions, and with a partition. The outer edge of the treads will be marked with a non-slip stripe in a contrasting colour, 3 to 5 cm wide.	

Boarding and disembarking areas, as well as landings, will be free of obstacles, with a minimum depth of 1.20 m.	
In front of the elevator door, there will be a free space of 1.50 m in diameter.	
The doors will be automatic and sliding, with a passage width of at least 80 cm.	
The minimum dimensions of the elevator cabin with one or two doors facing each other are 1 m wide and 1.25 m deep if the useful surface area of the floors other than the access floor is ≤ 1,000 m2, and 1.10 x 1.40 m if it is larger. Cabins with two angled doors are 1.40 m x 1.40 m.	
The cabin has a perimeter handrail and a mirror on the wall, in front of the door.	
Restroom	
The minimum free passage width of the toilet door is 80 cm, with sliding or folding opening outward.	
Inside the toilet, there is a space free of obstacles measuring 1.50 m in diameter.	
The sink does not have a pedestal and is at a maximum height of 85 cm and a depth of 60 cm. There is a space free of obstacles beneath it measuring 70 cm tall and 50 cm deep. The faucet is single-lever, preferably of a gerontological type, or automatic.	
The mirror is placed at a maximum height of 90 cm, preferably inclined towards the sink.	
Bathroom accessories are positioned at a height between 70 cm and 1.20 m.	
The toilet has two parallel transfer spaces of 80 cm. The seat has a height between 45 and 50 cm from the ground.	
On the wall of the faucet, there must be a fixed horizontal support bar, positioned at a height of 80 cm, and a vertical support bar extending up to 1.80 m high.	
The faucet has to have a single-lever, and the shower head height-adjustable.	
Inside the toilet, there must be an easily operable emergency device.	
Tasting area	
Furniture such as tables, chairs, bars, benches, and service furniture are arranged with a minimum distance between them of 80 cm, preferably at least 1.20 m.	
Under the tables, there is a free width of ≥ 80 cm, a free height of ≥ 70 cm, and a minimum free depth of 50 cm. They do have not lower transverse supports that hinder the approach of a person in a wheelchair from the front.	
Plates or food items should not be placed at a distance greater than 60 cm from the edge of the bar, nor at a height greater than 1.40 m.	
Information to potential visitors	
Inclusion of information about the accessibility features in the promotional channels of the resource.	
Participation in tourism sector fairs and congresses to promote the resource as accessible.	
Provide factual and detailed information about accessibility features without relying solely on logos or symbols that certify accessibility. Avoid ambiguous or misleading information that may prevent some clients from accessing the establishment or utilizing its facilities.	
Customer service is trained to respond to every question on the accessibility features of the location or the visit.	

Finally, all the staff members receiving the visitors or delivering the guided tour of the location, must train the following behaviours:

- Stand in front of the person, if possible, at the same height.
- Know the recommended techniques for going up and down ramps and stairs in a wheelchair.
- If we stop somewhere, check that the chair is properly placed.
- In narrow spaces, pay attention that the hands and feet of the assistant do not collide with doors or walls.
- Report any incident that can be solved for better inclusivity of the visitants.

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HeritAccess Guide

Module N₀ 4 - Guidelines for Auditory Accessibility

Module No 4. - Guidelines for auditory accessibility

1. Introduction to the topic

Understanding deaf people and their needs

Blind and partially sighted people, as well as people with hearing loss, face challenges in the digital world. Digital accessibility is essential to ensure that all users, regardless of their capabilities, can access, use and understand digital content and services.

Basic principles of digital accessibility include:

- Information Perception: Ensuring that users can perceive information and components of the user space.

- Userspace Management: Allowing users to manage userspace.

- Comprehensibility of information: Ensuring that users understand the information and how the user space works.

- Access to content regardless of technology: Ensuring stable access to content.

In the EU On June 28, 2022, the momentous European Accessibility Act (Directive 2019/882) took effect. Websites and digital material must be accessible to disabled people. Private and public companies conducting business in EU member states must comply with EAA standards by June 2025.

The European Accessibility Act (EAA) is a groundbreaking law that requires EU-produced, used, or labeled goods and services to be accessible to people with disabilities. This includes website, digital content, software, hardware, and digital services. All EU member states must comply with the 2019 European Aviation Authority (EAA). What distinguishes it? The framework provides a consistent set of accessibility requirements to overcome conflicting rules in member nations. The European Accessibility Act aims to improve digital inclusion. The EAA, formed from

advocacy and the need for standardized accessibility measures, greatly improves digital service and product accessibility for everyone, including those with impairments. A fairer digital world is the goal.

Positive resolution: European Accessibility Act. It streamlines the EU market for products and services and removes bottlenecks caused by Member State legislation, such as fair access to transportation, education, and the labor market. Businesses profit from this, not only persons with disabilities. Standardized accessibility laws in the EU will save costs, streamline international trade, and increase market opportunities.

Moreover, to offer all users, including those with impairments, equal access to digital content, Serbian organizations and institutions work on digital accessibility. These groups collaborate to promote an inclusive digital environment where everyone can use digital resources equitably.

Why is this topic important?

Advances in digital accessibility are essential to ensure that all users, regardless of their abilities, can use digital resources equally. We will put special emphasis on the hearing impaired.

We know that today various hearing aids enable solving this problem, but the biggest problem is with people who were born with this disability, where the desired results cannot be achieved by using the device.

Digital accessibility is key to creating a truly inclusive world for all. For people with disabilities, this means equal access to online education, health care, employment and e-commerce. In the age of social networks, it also means equal access to friendship and social growth. Web accessibility also encourages independence.

Here are a few reasons why digital accessibility is important:

1. **Inclusion**: Digital accessibility enables all users to access the same information, regardless of their abilities or impairments. Without accessibility, some users would not be able to use digital resources.

2. **Legal obligation**: Accessibility is a legal, ethical and moral responsibility, but it also makes sense from a business perspective. By making your website and digital services accessible, you enable more people to use and understand them more easily. You will also attract more users, encourage innovation and improve brand reputation.

3. **Global connectivity**: Digital accessibility can reduce the gap between developed and underdeveloped countries, connect people in rural areas with the rest of the world and help companies expand their user base.

4. **Education and health**: Accessibility allows people to get an education, stay healthy and protect the environment.

In short, digital accessibility makes the world a better place for all of us.

2. Learning objectives & outcomes

Every reader of this module will acquire knowledge about the requirements of individuals who are deaf or hard of hearing and contribute to creating a supportive environment for them.

Additionally, each reader will have the opportunity to familiarize themselves with the sign language used by individuals who are deaf or hard-of-hearing.

Upon completion of this module, learners will gain the requisite skills to assist individuals who are deaf or hard-of-hearing.

1.1 Architectural improvements for deaf and hard-of-hearing people

Architectural improvements are essential for deaf and hard-of-hearing people to enable them to access and participate in society. Here are some key aspects of architecture that are important to this population:

- **Soundproofing**: Architectural design should focus on noise and vibration reduction to facilitate communication and concentration for the hearing impaired. This includes good insulation of walls, floors and ceilings.

- **Visual cues**: Placing visual cues (eg light signals) in places such as entrances, stairs, elevators and exits can help people with hearing impairments to orient themselves in space more easily.

- **Sign language**: Incorporating sign language into architectural design can be beneficial. For example, placing signs with basic characters in public places can help people with hearing loss to find their way around better.

- **Inductive loops**: The installation of inductive loops in premises such as theatres, cinemas and other public institutions allows people with hearing loss to use their hearing aids without interference.

- **Approaches and stairs**: Building approaches and stairs should be wide enough and free of obstacles to allow easy access for people with disabilities, including deaf people.

Sound insulation is extremely important in rooms where deaf people live. Here are a few reasons why soundproofing is important:

- **Quality of life**: Long-term exposure to noise can negatively affect the quality of life. Sound insulation enables a deaf person to protect himself from unnecessary sounds and enjoy a quiet environment.

- **Concentration**: Sound insulation reduces distractions and enables better concentration. This is especially important for deaf people who rely on visual information.

- **Communication**: In rooms with good sound insulation, deaf people can communicate without interference. This is crucial to their daily interactions with others.

- **Health**: According to research by the World Health Organization (WHO), noise pollution can cause stress, increase blood pressure and even lead to hearing loss. Sound insulation helps reduce these risks.

- **Inclusivity**: Quality sound insulation enables a deaf person to feel comfortable and safe in their home or work environment. Investing in sound insulation improves the quality of life of deaf people and contributes to their inclusion.

- **Visual contrast**: Using contrasting colours on doors, stairs, and other surfaces can help people with hearing loss find their way around.

- **Notices and instructions:** Placing clear visual notices and instructions in visible places can help people with hearing loss to be informed about their surroundings.

Visual contrasts play a key role in architecture because they shape the way we experience and understand space. Here are a few reasons why visual contrasts are important:

- **Orientation and navigation**: Contrasts in colour, light and texture help us to orient ourselves in space. For example, clearly defined entrances, stairs and corridors facilitate movement and navigation.

- **Safety**: Contrasts can warn of dangers. For example, bright signs on a dark background attract attention and indicate exits or emergency exits.

- **Aesthetics**: Visual contrasts contribute to the aesthetics of architecture. The combination of light and dark tones, different materials and shapes creates interesting and harmonious compositions.

- **Functionality**: Contrasts help distinguish different elements. For example, the contrast between walls and windows makes it possible to distinguish light openings.

- **Inclusivity**: Visual contrasts are especially important for people with visual impairments. Clearly defined elements facilitate their interaction with the space.

In short, visual contrasts are the basis for the understanding, functionality and aesthetics of architecture.

Sign languages are languages that use agreed-upon hand movements to convey meaning. Unlike spoken languages that use speech, sign languages use hands and facial expressions. Here are some key facts about sign languages:

- **Natural languages:** Sign languages are natural languages with their grammar and lexicon. They are not universal and usually not mutually intelligible if the interlocutor uses another national sign language. There are more than 200 sign languages around the world.

- **Inclusiveness**: Although sign language is most often used by deaf and hard-of-hearing people, it is also used by hearing people who are physically unable to speak, have speech problems or have a deaf family member.

- **Legally recognized:** Some sign languages are legally recognized. This means that they are protected by law and recognized as a means of communication.

- **History**: Sign languages have been around for a long time. The earliest records of contact between Europeans and the indigenous people of the Gulf of Mexico region date back to the fifth century BC. Many deaf people throughout history have used sign language.

- **Different sign languages:** Every country has its original sign language. For example, Croatian Sign Language (HZJ), American Sign Language (ASL), British Sign Language (BSL) and others.

Sign languages are valuable resources that enable inclusion and communication among different communities.

Inductive loops are systems that allow people who wear hearing aids to hear the sounds around them without interference. These systems are especially useful for deaf and hard-of-hearing people. Here's how they work:

- **Working principle**: The functioning of the inductive loop system is based on a special way of receiving the sound signal (voice of the interlocutor) to the person with a hearing aid. Instead of sound travelling through air molecules, a person with a hearing aid receives the sound signal via a magnetic field created by an inductive loop. This enables better audibility and reduces interference.

- **Application**: Inductive loops are often used in public places such as counters, counters, stalls, meeting rooms, shops, churches and other closed spaces. People who wear hearing aids can use this system to enable equal communication.

- **Quality**: The quality of induction loops has increased significantly, which has increased the interest of users. In addition to technological progress, society's awareness of the needs of people with disabilities has contributed to the more intensive use of these systems.

- **Legal recognition**: Some sign languages are legally recognized, which means they are protected by law and recognized as a means of communication.

Inductive loops enable inclusion and better communication for people who wear hearing aids.

Approaches and stairs are key elements in architecture that require special attention to ensure accessibility for deaf people. Here are some guidelines for designing driveways and stairs:

Access:

- Balance: The approach should be level and stable, without bumps or obstacles. This allows people who use wheelchairs or have mobility problems to move around more easily.

- Width: The approach should be wide enough to allow the passage of people in wheelchairs, with canes or with a guide.

- Non-slip surface: The approach surface should be non-slip to avoid accidents, especially for people with impaired balance.

- Visual contrast: Driveway markings should be clearly visible and contrasted so that deaf people can notice them.

Stairs:

- Balance and Height: Stairs should be evenly spaced and of equal height to facilitate ascent and descent.

- Non-slip surfaces: The surface of the stairs should be non-slip to avoid falls.

- Markings: Each step should be clearly marked to ensure safety. This may include light signs or visual cues.

- Handrails: Handrails on stairs are important for supporting people with balance impairments. They should be strong and high enough.

Inclusivity:

When designing driveways and stairs, the needs of deaf people should be taken into account. These include visual cues, clear contrasts and safe surfaces. Also, investing in the accessibility of driveways and stairs not only improves the quality of life for deaf people but also contributes to inclusivity and safety for all.

1.2 Improvements that can be undertaken

Wineries can take certain steps to reach people who are deaf and provide them with a better experience of the visit. Here are some practical tips:

1. **Visual communication**: As people who are deaf often use visual communication, wineries can use visual signs to indicate different parts of the winery. For example, placing clear signs for the entrance, exit, toilet, tasting room and other places can help people who are deaf to find their way around more easily.

2. **Written communication**: Wineries can provide written information about the wines, the production process, the history of the winery and other relevant details. This can be in the form of brochures, leaflets or information on the website.

3. **Staff training**: Winery staff should be trained in how to communicate with people who are deaf. Basic sign language signs and basic phrases can be very helpful.

4. **Reservations**: Wineries can enable online reservations so that people who are deaf can be informed in advance about the visit and their specific needs.

5. **Digital accessibility**: If the winery has a website, it should take care of digital accessibility. This includes using appropriate labels on images, clear navigation and good colour contrasts.

6. **Open communication**: Wineries should be open to communication with people who are deaf. If a person has special requests or needs, the staff should be ready to listen to them and provide appropriate support.

7. **Cooperation with organizations**: Wineries can cooperate with local organizations that deal with people who are deaf to better understand their needs and to work together to improve accessibility.

Access to people who are deaf is not only a matter of respect but also a good business strategy because it allows more people to enjoy the wines and visit the winery. The adaptation of the winery for deaf people has several important reasons:

- Inclusivity and equality: Wineries should create an inclusive environment for all guests, regardless of their abilities. Deaf accessibility ensures that everyone feels welcome and included.

- Business benefit: Adapting a winery for deaf people can attract more guests. People with hearing loss often travel with family and friends, so wineries that are adapted to their needs will attract more visitors.

- Social responsibility: As part of society, wineries have a responsibility to all their guests. Adaptation for deaf people shows sensitivity to different needs and contributes to the creation of an inclusive society.

- Education and awareness: Wineries can educate their staff and guests about the needs of deaf people. This can help reduce stigma and increase understanding of different abilities.

Ultimately, adapting wineries for deaf people is not only good practice, but also a step towards creating a better and more inclusive environment for everyone.

3. Learning contents

Chapter 1 - Literature review on Deaf Difficulties

Research dealing with the problems of deaf people and their adaptation needs includes various aspects. Here are some relevant sources:

- "Exploring communication difficulties with deaf patients" (2021) - This research explores the communication difficulties faced by deaf people in the healthcare environment. The authors emphasize the importance of clear communication and patient engagement in achieving better outcomes

- "Research in Deaf Education: Contexts, Challenges, and Considerations" - This book explores the challenges of researching a small, heterogeneous, and socially marginalized population of deaf people. The authors deal with theoretical and methodological challenges in researching this topic

- "Resilience in Deaf Children: Adaptation Through Emerging Bilingualism" - This book explores the adaptation of hearing-impaired children through the development of two languages (sign language and written language).

These resources provide insight into various aspects of deaf people's lives and the need for adaptation to ensure their inclusion and better outcomes.

Research that deals with the problems of deaf adults and their adaptation needs includes various aspects. Here are some relevant sources:

- "Culture of the Deaf - Association of the Deaf and Hard of Hearing of the City of Zagreb" - This organization researches and promotes the culture of deaf people. Through various projects, magazines and education, they provide support and information about the needs of deaf adults.
- "Deaf and Hard of Hearing Communication" - This article explores the communication challenges faced by deaf and hard of hearing people. It focuses on different ways of communication and adaptation.
- "Resilience in Deaf Children: Adaptation Through Emerging Bilingualism" - This book explores the adaptation of hearing-impaired children through the development of two languages (sign language and written language). Although it focuses on children, it can provide insight into the needs of deaf adults.

These resources provide different perspectives on the needs and challenges of deaf adults.

Chapter 2 - Best practices of Deaf Citizens

Lived experiences of deaf people in the area of the City of Zagreb: Ethnological and cultural anthropological perspective

In the diploma thesis "Lived experiences of deaf people in the area of the City of Zagreb", the position of deaf people in public and "private-public" places in Zagreb is investigated. Through an anthropological analysis, the author investigates how deaf people experience the city space, find their way around the city infrastructure daily and use public facilities. Also, adaptation of the infrastructure and programs to the needs of

deaf people is considered. The research includes observation, questionnaires and autoethnography, and the keywords are "Deaf", "lived experience", "city" and "public spaces".

In addition, it is important to note that there are different hearing impairments in deaf and hard-of-hearing people. Deafness is divided into mild, moderate and severe, while deafness means complete hearing loss. Hard-of-hearing people can use hearing aids to perceive other people's speech. In light of these studies, wineries and other hospitality facilities can be adapted to the needs of deaf people to provide them with a pleasant experience. This includes communication strategies, staff training and adaptation of space and services. It is important to create an inclusive environment that supports different groups of people, including deaf people.

Chapter 3 - Practical advice (Checklist)

✓ <u>*British sign language*</u>
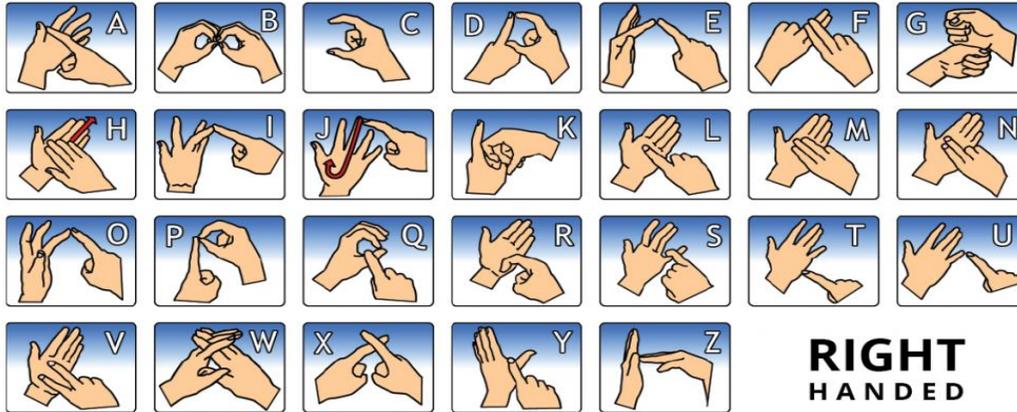
✔ *Croatian and Serbian sign language*
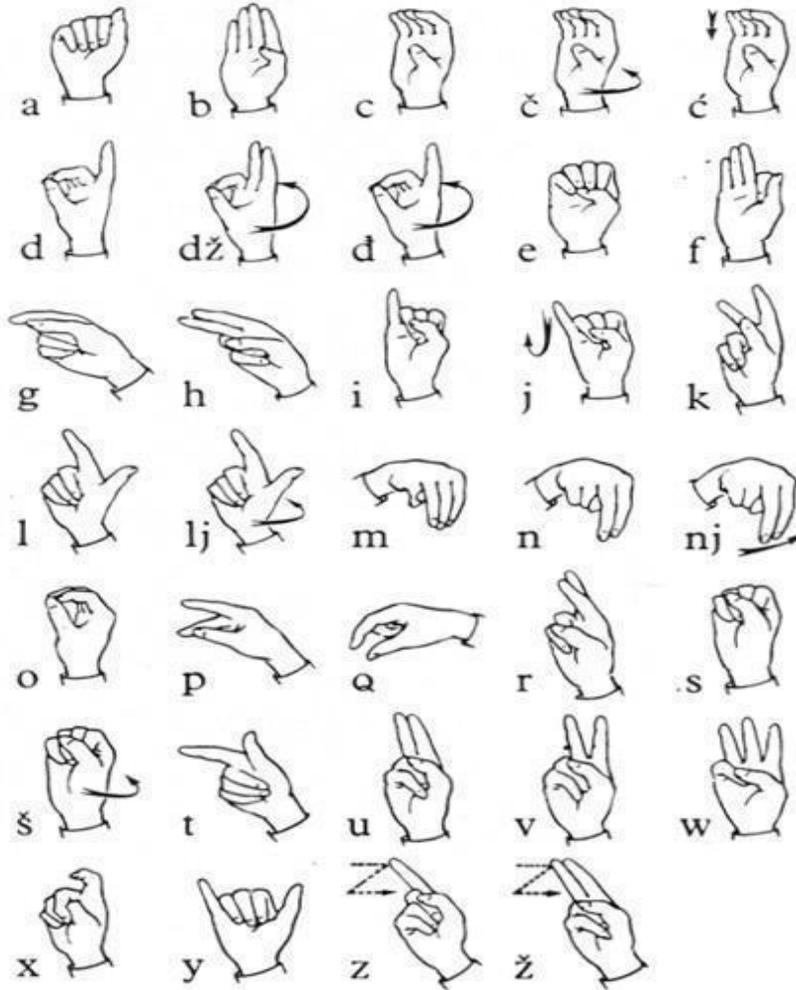
✔ _German Sign Language_
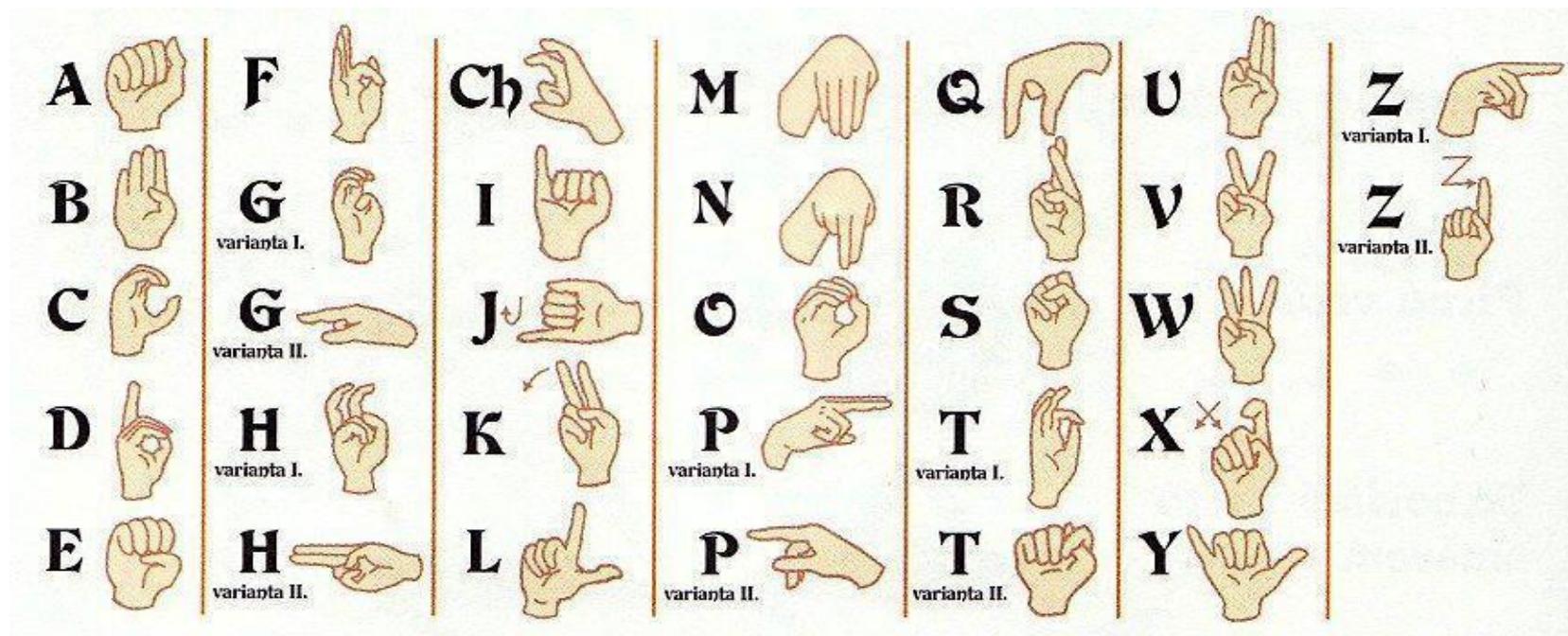
Slovenian sign language
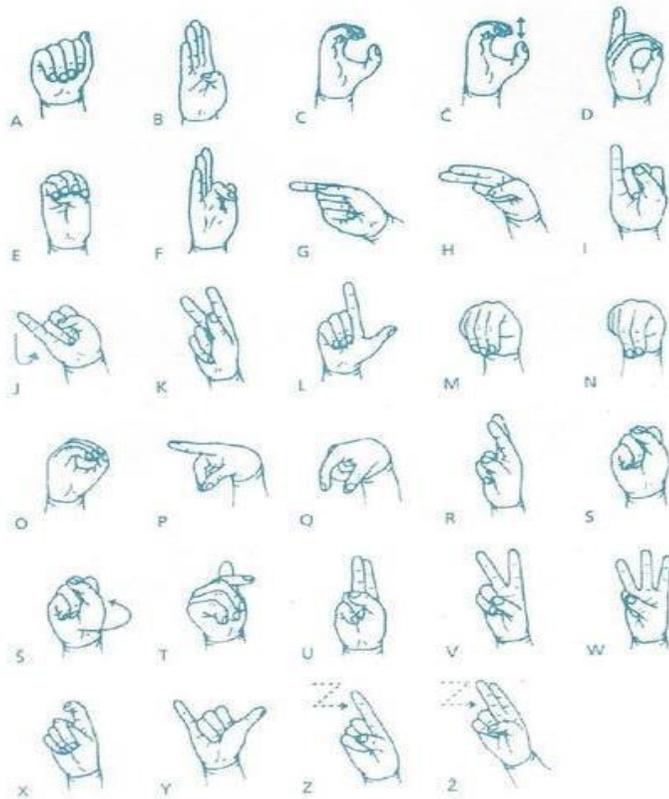
Greek sign language

Greek Sign Language - The Alphabet
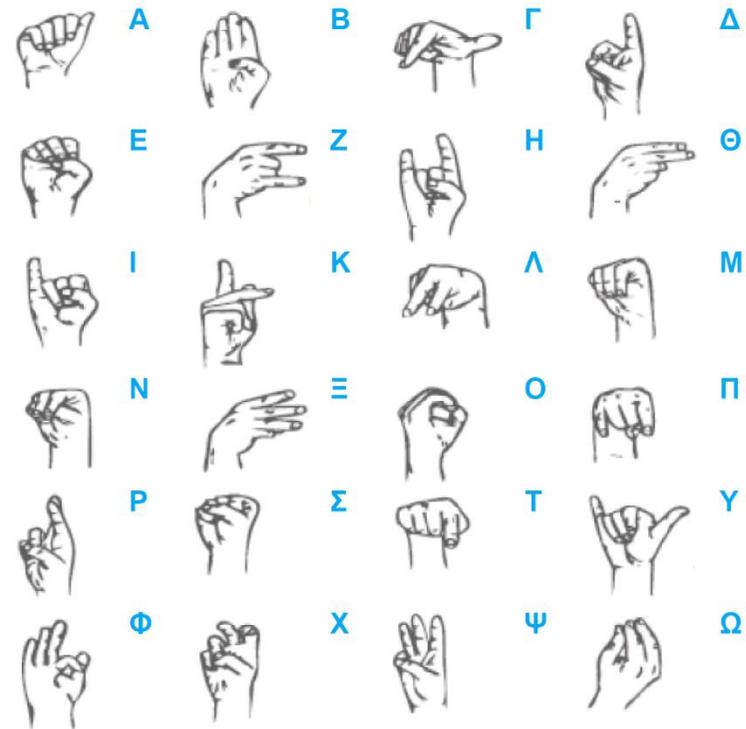
Italian sign language
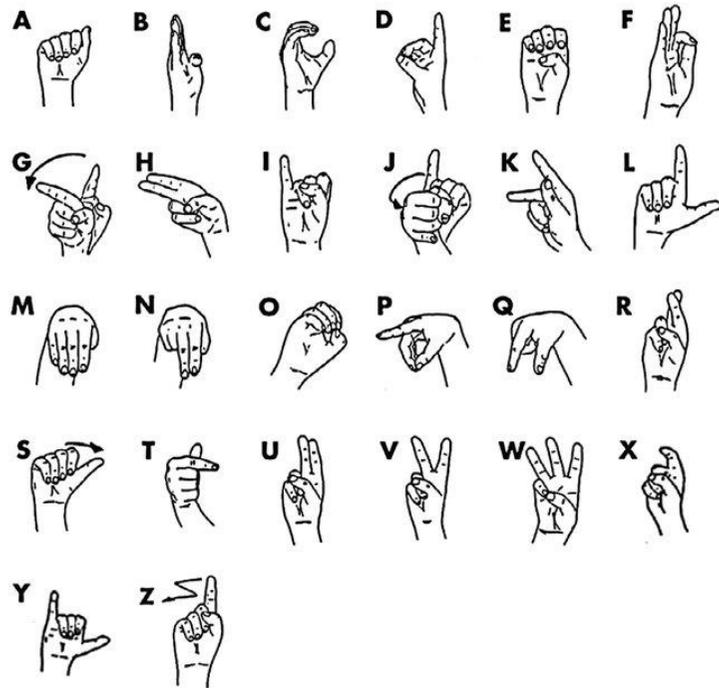
Spanish sign language
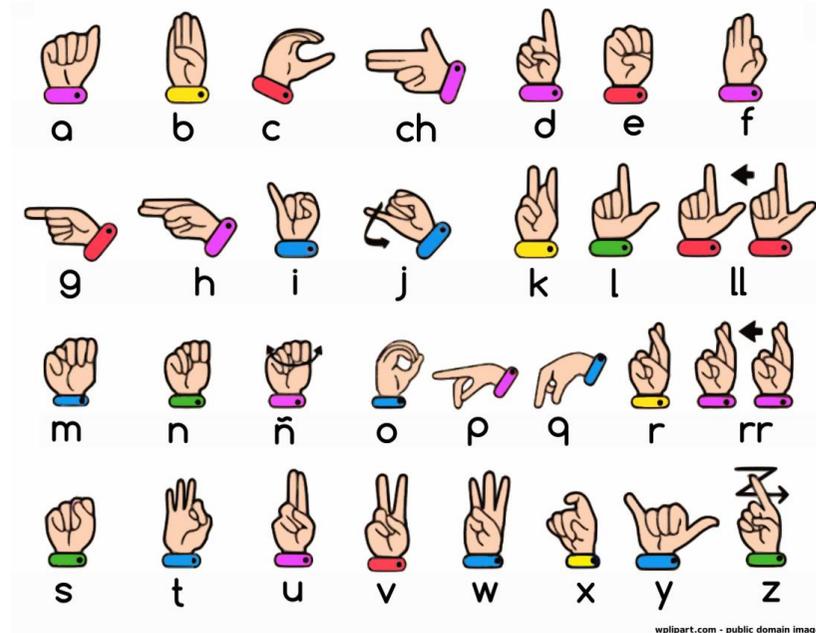
wplipart.com - public domain images

In this chapter, the auditory accessibility advice will be shared in the format of a checklist:

REQUIREMENTS	YES/NO
Are there adequate visual identities?	
Is there sound insulation?	
Are employees educated in sign language?	
Are there inductive loops?	
Are the driveways and stairs adapted?	
Is communication possible?	

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HeritAccess: access to culture and heritage in rural surroundings through the interactive digital experience

PROJECT No 2022-1-ES01-KA220-ADU-000086106

HeritAccess Guide

Module N₀. 5 - Guidelines for Visual Accessibility

Module No. 5 - Guidelines for Visual Accessibility

1. Introduction to the topic

According to the World Health Organization (WHO), the definition of disability is the following:

"…disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being." Particularly, visual impairment means "that a person's eyesight cannot be corrected to a "normal" level.

Vision impairment may be caused by a loss of visual acuity, where the eye does not see objects as clearly as usual. It may also be caused by a loss of visual field, where the eye cannot see as wide an area as usual without moving the eyes or turning the head.

There are different ways of describing how severe a person's vision loss is. The World Health Organization defines "low vision" as visual acuity between 20/70 and 20/400, with the best possible correction, or a visual field of 20 degrees or less. "Blindness" is defined as a visual acuity worse than 20/400, with the best possible correction, or a visual field of 10 degrees or less. In the case of older adults, vision impairment can contribute to social isolation, difficulty walking, a higher risk of falls and fractures, and a greater likelihood of early entry into nursing or care homes.

Visual accessibility means making sure that information is presented in a way that can be easily perceived and understood by people with visual impairments. For what concerns visual impairment in the tourism area, it means making sure that tourists with visual issues can enjoy the same experience as people who do not suffer those specific impairments.

With this in mind, it is consequential that visual impairment leads to a lower quality of life, including social and recreational activities. For this reason, visual accessibility must be a core topic in developing tourism programs and in the training process of tourist guides, owners, managers and staff of tourism facilities as well as tourism web developers, since advertisement and websites often represent the primary source of engagement in tourism offers.

Today, only 9.2% of the tourism market meets the needs of people with specific travelling needs related to some kind of physical or mental disability.

Since one of HeritAccess' core objectives focuses on developing tools and guidelines that will come in handy for rural structures operators, a major point in the development of their activities needs to focus on visual accessibility.

Travelling as a blind or partially sighted person can be challenging, but with structures duly trained in visual impairment assistance, this kind of hindrance will be overcome fairly easily and everyone will be able to enjoy the same level of experience.

2. Learning objectives & outcomes

The guidelines will therefore focus on two kinds of training:

- training for owners, managers and staff of touristic facilities, including potential tour operators, so that they will be aware of the proper measures to be put in place to adapt their facilities and properly train their staff in the assistance of persons with sight impairments, as well as to make the touristic experience equally enjoyable for people with visual impairments;
- training for web developers to design websites which are visually friendly: this will include a set of recommendations for web developers to make the websites usable for users with some degree of visual impairment as well as for blind users.

Visual accessibility efforts would lead to a touristic market more inclusive from a social point of view, enabling more people affected by those specific disabilities to fully enjoy a touristic experience.

Moreover, the more accessibility measures travel facilities would put in place, the more they would become attractive for people with sight impairments and disabilities in general, which represent a $70 billion market just in Europe and the USA.

The overall impact of these guidelines will increase awareness about the needs of a major fraction of the tourist market that is mostly underlooked. Major interventions in visual accessibility will not only result in an increase of economic advantages for rural tourist facilities, but will also contribute to creating a more inclusive tourist market.

Also, as already revealed by research conducted internally by Legacoop itself on a sample of 159 firms spread around Italy (selected among over 300 Italian facilities and directly contacted by Legacoop itself), the very majority of agro-touristic facilities as well as wineries, have very little awareness regarding accessible tourism in general and visual accessibility in particular. The vast majority, though, has shown sincere interest in this topic, and will therefore represent a potential stakeholder for the purpose of these guidelines, which would also contribute to creating a network of organisations involved in such a market.

3. Learning contents

Chapter 1 - Literature review on Visual Accessibility

1.1 Legal framework

One of the first legal documents related to the rights of people with disabilities is the Convention on the Rights of People with Disabilities (CRPD), a treaty designed by the United Nations and signed by 82 countries worldwide and adopted for the first time on 13 December 2006.

Art. 9 of the CRPD, states that " To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas." Following these main recommendations, tourism facilities started to be adapted accordingly.

For what concerns the European Union, the key legal framework is represented by the European Accessibility Act.

The "Agenda for new skills and jobs - a European contribution towards full employment" proposes a series of specific measures "on better anticipating and matching of skills and labour market needs to be carried out in partnership with Member States, social partners, labour market and education institutions".

After the enactment of the Lisbon Treaty, for what concerns tourism, the EU has better tools to support and coordinate Member States in their actions towards a more accessible tourism market. These competencies granted to the EU in the tourism market sector are enlisted in art. 195 of the Treaty, which allows the EU "to complement the action of the Member States in the tourism sector, in particular by promoting the competitiveness of Union undertakings in that sector. To that end Union action shall be aimed at: encouraging the creation of a favourable environment for the development of undertakings in this sector; and promoting cooperation between the Member States, particularly by the exchange of good practice."

1.2 Methodology and main findings

The theoretical framework has been based on online research for sources related to visual impairment (see References), starting with the definitions of disabilities in general and visual impairments in particular. After that, the research focused on the definition of the target groups in accordance with the project's specific objectives.

For what concerns best practices and case studies, a survey has been conducted on a sample of 159 wineries and agro-tourism facilities spread in the Italian territory and directly contacted by Legacoop. Based on the responses, one of the main findings is that, due to the small dimension of the average facilities, most of them have little to no training with regard to visual impairment expedients, even though most of them have expressed their interest in the subject.

Once the range of the research was widened to visual accessibility in general, more evidence of best practices and case studies emerged, in particular regarding sighted guide training and emergency evacuation plans for persons with visual impairments.

For what concerns web developers, wide literature has been found, and most of the organisations involved in the research process have already specific recommendations on how to design a website that meets the needs of persons with sight impairments.

Chapter 2 - Best practices and case study on Visual Accessibility

This chapter will focus on four main aspects of visual accessibility requirements for touristic facilities:

- Sighted guide training.
- Web developers' requirements in building an accessible website for people with sight loss.
- Emergency evacuation plans for people with sight loss.
- Main advice for facilities' staff during guided tours (with an insight on wine-oriented tourism).

2.1 Sighted guide training

The first thing to keep in mind is that many people with sight impairments want to travel independently. Therefore, some general recommendations must be kept in mind while offering guiding services:

- always describe the surroundings for them to better understand the environment;
- stop walking whenever an obstacle is met and describe them the hinder they are facing;
- speak directly to the person you are accompanying;
- try to perceive any sign of distress they might show and act accordingly.

More specifically, the sighted guide training focuses on a series of rules to be followed to ensure a service that is suited for a person with visual impairment and that will avoid putting them in a position of distress. In particular:

1) **Introduce yoursel**f: when approaching a person with sight loss, always start the greeting by introducing yourself and by asking them if help is needed. After that, gently touch the back of their hand with the back of your own as an indication for them to take your arm.

2) **Basic sighted guide technique**: the person you are going to guide will take your arm just below your elbow, placing their fingers on the inside of your arm and the thumb on the outside (just like grasping something). Never take the person's arm or hand, or try to push or pull them along. Not only it is this considered rude, but it's less effective in trying to guide someone. Keep your arm straight and relaxed and make sure the person you are guiding stays half a step behind you. Try not to stand too close or too far from them.

3) **Switching sides**: if for some reason you need to switch sides (i.e. to open a door), after indicating the need to switch arms, the person you're guiding will place their left hand on your left arm, directly above where their right hand is positioned. They're now holding onto you with both hands. Next, they'll release their right hand, while bringing their left hand gently across your back until they connect with your right arm. Their left hand should now be holding onto your right arm, just above your elbow (you may want to gently extend your bent elbow behind you to make it easier for the person to find it). They can now take a small step over to your right side, and the two of you can resume the normal guiding position.

4) **Narrow spaces**: when approaching a space that will impede you from walking side by side, make sure to walk in front of them and place your arm behind you diagonally, so that the person you are guiding will know you are crossing a narrow path.

5) **Going through doors**: always make sure to warn the person you are escorting that you are approaching a door, and describe to them the kind of gate they will walk through (if it's large or narrow if it opens from the left or from the right if it must be pulled or pushed etc.). You will have to open the door, but the person escorted will have to keep the door open when crossing it.

6) **Stairs**: always stop and warn the person you are escorting before walking through the stairs. In the case of curbs, always approach them squarely (never at an angle). You will have to take the first step, and then the two of you will proceed together in rhythm.

7) **Take a seat from the front and from the back**: guide the person directly in front of their seat, until their knees are almost touching it. Let them know that they are in front of a seat, then describe what kind of seat it is. Once it's been inspected, they'll turn around and sit down. For what concerns seating from the back, place your hand on the back of the chair, and tell the person you're guiding that you're standing in front of a chair. Be sure to let them know whether or not the chair is pushed into the table. They'll then move their gripping hand down your arm until they are touching the back of the chair. At this point, you should step away slightly so they can locate the table with their free hand.

8) **Getting into a car**: first, tell the person which direction the vehicle is pointing; for example, "The vehicle is pointing to your left." Now, place the hand of your guiding arm on the door handle to allow the person to follow down your arm and locate the handle. Then guide their other hand to the roof above the top corner of the door; this is important to help prevent them from bumping their head. At this point, they can now open the door and seat themselves safely into the car. If needed, provide any additional physical assistance or verbal information; for example, with seatbelts, canes, or packages.

2.2 Web developers' requirements

There are some recommendations that will come in handy when designing a website that is user-friendly towards users with sight impairments:

Colour and contrast: many people with sight impairments struggle to identify blurred colours. For this reason, it is important, when designing a website, to have a high level of colour contrast (i.e. white background with black textures or vice versa).

Font size and weights: it is important to use a font size of at least 12 points, since visually impaired users may struggle with little font textures.

Turn the texture into audio: by putting audio that synthesises the texture, your website will overcome many issues related to visual impairment.

Images on the website should be accompanied by a tag that a Screen Reader can translate to people with sight impairments so that the picture will be duly described. The same principle applies to potential charts that may be found in the website itself.

| Contrast ratio: 2.7:1 | Contrast ratio: 1.8:1 | Contrast ratio: 4.25:1 | Contrast ratio: 17.6:1 |
| Insufficient colour contrast | Insufficient colour contrast | Insufficient colour contrast | Sufficient colour contrast |

Do not rely on colours: one of the main sight impairments consists of colour blindness, thus making it impossible for people to use colours to navigate through content.
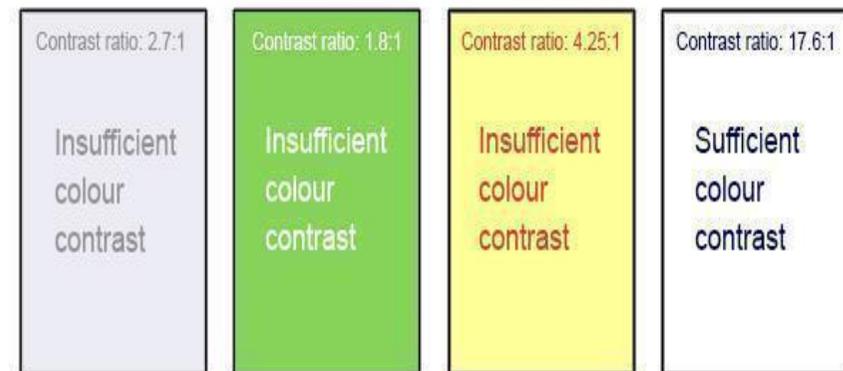
2.3 Emergency evacuation plans

For people with visual impairments, it is crucial for facilities to put in place an effective evacuation plan that takes into account the factors of risk related to visual issues. In particular:

- Staff members should register any kind of visual impairments their customers might suffer.
- Staff members should actively ask if support is needed in evacuating the building in case of emergency.
- Staff members should give oral instructions about the safest route or direction using directional terms and estimated distances.
- Staff members should explain where you are going and what you are doing while escorting the person out of the building.
- Persons with visual impairments may consider familiarising themselves with the evacuation routes in the buildings they regularly occupy so that in the event of an emergency the path of travel is not wholly unfamiliar.

2.4 Advice for staff in tourist facilities

For what concerns agronomic and wine tourism, the main recommendation is to let visually disabled tourists focus mainly on the olfactory and

taste of the wines (in the case of wine tastings). Wine tasting is an activity easily enjoyable for people with sight impairments, it only requires some expedients. In fact, many wineries propose the so-called "blind tastings".

Once blindfolded, the other senses get sharpened: taste, hearing, sense of smell, touch. Moreover: the sense of balance, heath perception, language and thoughts, the perception of the Io. All these aspects, according to Rudolf Steiner, are encompassed in the 12 senses operating in every vital process, from breathing to growth.

You should guide your guests through smells and tastes, letting them understand what a bottle hides: where the scents come from, how the ground and climate influenced the taste of the wine, the different methods of production, how to recognize potential flaws etc.

Accompany the experience with some simple baked food, which will not disguise the smell and taste perceptions.

During the tasting pay attention to providing comfortable seats, to the height of the table and to assure a minimum distance from one guest to another.

One of the main practice tourist facilities should implement in dealing with people with sight impairments is to provide them with material written in braille and brochures, as well as audio guides. If possible, the labels of the bottle you are going to present during the guided tour should be in braille as well.

One useful recommendation for these kinds of tours is to assign a staff member to persons with sight impairments for the whole tour so that tourists will get familiar with the tour operator and be more comfortable during their experience.

2.5 Case study: the "Pantou" platform

For what concerns the case studies, one example of information related to accessible tourism is well represented by the platform "Pantou", which enables potential visitors to access a wide range of facilities and/or organisations specifically oriented towards tourists with different disabilities.

As it can be seen from the main page, the website is well suited to search for accessible services, allowing users to do advanced research based on the country of interest, the type of disability and the services required.

Chapter 3 – Practical Advice (Checklist)

For the purpose of these guidelines, two checklists were produced related to visual accessibility: one for owners of touristic facilities, managers and staff members, and the other for web developers.

<u>Owners, managers and staff of tourist facilities:</u>

REQUIREMENTS	YES/NO
Are the owners and managers aware of the problem?	
Has the staff been informed about visual accessibility?	
Is your staff familiarised with sighted guide training?	
Has the facility taken any measures to adapt to tourists with visual impairments (such as removing unnecessary objects from the rooms, making clear and familiar paths etc.)?	
In the case of guided tours, have the guides been instructed on how to deal with tourists with visual impairments?	
Does the facility have material printed in braille?	
Are there any architectural barriers that would make the tour less accessible for people with visual impairments?	
Does the facility provide operators or guide dogs to facilitate the tour?	
Does the facility apply some kind of innovative technologies to facilitate the tour for people with visual impairments?	

Web developers:

REQUIREMENTS	YES/NO
Colour contrast	
Font size and weights	
Audio content	
Screen Readers	
References to Figures and Charts	
Alt Texts	

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HeritAccess: access to culture and heritage in rural surroundings through the interactive

digital experience

PROJECT No 2022-1-ES01-KA220-ADU-000086106

HeritAccess Guide

Module N₀. 6 - Modern technology as a means of making rural areas more accessible

Module N₀. 6 - Modern technology as a means of making rural areas more accessible

1. Introduction to the topic

When owners of cultural assets open them to the public, they organise the presentations and media to the best of their knowledge and their idea of what might be of interest to visitors. However, when we perceive the cultural property with all senses and the limitations of the various possible target groups, we quickly notice small or large barriers that we are not aware of during "normal operations". Depending on the quality standards of the operators and cultural sponsors, there are many opportunities for optimisation. A major challenge is to harmonise the qualification of the cultural asset in such a way that it does justice to the interests of the target groups and the character of the cultural asset. Appropriate infotainment and edutainment must be designed as part of a museum's educational presentation with elements of marketing and tourism development. The current patterns of experience of the various target groups are also decisive for the perception of cultural assets. This applies to children, young people, families, adults, experts and senior citizens. Modern technologies have now become part of everyday life for people of all ages. Accordingly, they are a natural part of modern presentation didactics as a familiar tool for target groups. In particular, digital media via your own smartphone or tablet supports minimally invasive and inexpensive access to cultural assets compared to monitors on walls, fixed installations or audio guides. Modern digital media, available worldwide via the Internet, are indispensable for the successful cataloguing of valuable cultural assets for European exchange and education.

Too often, the cultural assets of smaller cultural organisations or private owners are "too far away", closed, in a poorly structural condition or the content is in poor condition. In many places, structural restrictions make the property inaccessible, especially for people with limited mobility or for children. Once you have reached the location, information texts are often generally missing or are only available in the local language or in a form that is difficult to read (too small, too high, low contrast, etc.).

Today, digital formats are very diverse and can be used as a supplement, for example, to bring ruins or abandoned places to a new "digital life". Information can also be presented digitally in a flexible and accessible way, adapted to different target groups. The diversity of digital media, such as images, films, audio, 360° recordings or edutainment, in combination with the real world enables enrichment, and documentation and creates accessibility for as many people as possible, regardless of their age, gender, origin or limitations.

2. Learning objectives & outcomes

The use of digital media harbours many opportunities but also new challenges. Due to the diversity, there are many possibilities but also obligations resulting from the European Accessibility Act, such as checking the media used for their accessibility or making them accessible.

2.1 European Accessibility Act (EAA)

The EU Accessibility Act (EAA) will come into force in June 2025. Among other things, it stipulates that not only products but also services such as websites must be accessible. In detail, this means that every new or modified website must comply with the "Web Content Accessibility Guidelines" (WCAG) at level AA. However, the EAA only applies if the organisation has more than 10 employees and an annual turnover of more than 2 million euros.

The background to these guidelines is clear. Around 20% of the EU population is permanently or temporarily restricted. This results in a social imbalance regarding the inclusion of people with disabilities, which is to be significantly equalised by the EAA. The EAA also helps companies to market accessibility services and build up expertise in the EU to develop these sectors of the economy. However, not only companies based in the EU are required by the EAA to make their products and services more accessible. The EAA applies to all organisations that place products on the European market.

⇒ **[Web Content Accessibility Guidelines (WCAG)](#)**

⇒ **[European accessibility act (EAA)](#)**

2.2 How does the EAA affect the digital development of rural cultural heritage?

In most cases, the turnover of such locations is less than 2 million euros. But this also excludes up to 20 per cent of visitors or places them in front of a barrier. Especially in rural areas, cultural heritage sites are often dependent on every visitor in order to be able to refinance themselves and, in general, such places are important meeting places where inclusion can be lived.

In most cases, the format chosen for digital access is a website and/or an app for mobile devices. When creating such a format, there are important basic design decisions that can ensure that the presence is accessible to a much wider audience.

These basic aspects are:

- Simple and stringent structuring without unnecessary design elements

- Focus on the essential content

- Text in the largest possible font without serifs with the highest possible contrast to the background

- Describe each image with an alternative text

- Dedicated landing page that provides a simple overview of the product and explains all setting options

These aspects make it possible for the application to be accessible to blind people with screen readers, visually impaired people, people with mild cognitive impairments and people with walking disabilities using simple means.

2.3 Accessibility tests for digital content

Based on the "Web Content Accessibility Guidelines" (WCAG), there is a tool for objectively evaluating an application. Websites can be evaluated manually using the WCAG test plan or with the help of automated evaluation tools. One example of such an automated evaluation is the "Web Accessibility Evaluation Tool" (WAVE). This tool enables untrained people to identify potential problems for people with disabilities without having to analyse the programming structures. But such tools are not yet able to analyse texts for their complexity so they can only be used to analyse the technical structure. However, analysing the complexity of texts with the help of AI also seems possible in the future, so that even more precise automatic analysis is possible.

The WCAG does not only provide options for analysing websites. Pretty much all checkpoints can also be applied to mobile apps. Currently, there are no automated test procedures for such apps as there are for websites, so the analysis here has to be carried out in a time-consuming manner with test plans and technical understanding. In addition, it is much more challenging to develop an accessible app, as there are even fewer standardised interfaces for accessibility features than for websites.

⇒ **WAVE Web Accessibility Evaluation Tools**

3. Learning contents

Chapter 1 - Literature review on usage of AR and VR

As described in the previous modules, there are typical barriers that restrict accessibility (such as distance, building conditions, opening hours, lack of staff, and low financial resources), especially for small rural cultural venues. These barriers can be categorised according to the target group and degree of disability (physical, visual, auditory, cognitive in various degrees). Based on this, an individual improvement effort can then be made in terms of accessibility using audio, video, visualisations and simple language. The attractiveness of digital offerings and their motivational potential for self-learning and learning empowerment (pedagogical quality) must also be implemented in a structured manner. Finding a suitable solution is therefore a complex process. Starting with the target direction and target group. Is it about local programmes that improve accessibility for different age and interest groups? Is there a specific educational claim? Is it about marketing tools or tourism requirements? Is it about content available online for target groups who cannot be on-site? What scope of impairments should be considered? Or a bit of everything?

Digital media are used in many different areas and the demand for them is increasing. This can involve the documentation or presentation of cultural assets as well as marketing and tourism.

In the field of monument preservation, documentation and visualisation, either a geometric model or a virtual reconstruction is usually created using 3D modelling, photogrammetry or laser scans. A high value is placed on detailed and true-to-scale modelling so that dimensions can also be determined retrospectively using the data. Studies by[2] on the techniques used to document cultural assets over the last 40 years have shown the rise of digital media for documentation in the last 20 years. Photogrammetry was identified as the most frequently used technique. One reason for the popularity of the technique is the possibility of creating a geometric model at a low cost and in a short time. In addition to the geometric model, the individual images can also be used for documentation purposes. Different techniques are also often combined, such as laser scanning and photogrammetry for a precise geometric model with photorealistic textures[3].

Digital media, in particular virtual reality (VR) content, is also becoming increasingly common in exhibitions and museums. The use of VR ranges from a single exhibition element on-site or travelling exhibitions to a completely digital exhibition that can be accessed online. The survey[4] showed that most museums have used VR elements to enable visitors to travel through time or to places that are not accessible. This creates an immersive experience for visitors. VR offerings are popular with visitors and the feedback is very positive, which is why museums are increasing VR offerings or integrating them into their permanent exhibitions[5].

In addition to the stationary VR offerings in museums, there are also fully digital exhibitions, particularly in the field of art museums. These show, for example, the works of art in virtual rooms. They also allow visitors to take a tour of a virtual museum and view works of art that are not on display. An example of such a creation system for digital exhibitions is VIRTUE[6] or SCULPTEUR[7]. Such digitally created exhibitions can be used to make an arbitrarily large and, for example, light-sensitive collection of images and objects accessible to the public.

Furthermore, VR elements can be linked with educational content to enable e-learning. The need for digital learning platforms has become particularly apparent during the COVID-19 pandemic. The accessibility of digital content without temporal or geographical boundaries enables

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[2] Yang et al. (2020)

[3] Gabriella Caroti et al.

[4] Shehade and Stylianou-Lambert (2020)

[5] Izzo (2017); Shehade and Stylianou-Lambert (2020)

[6] Giangreco et al. (2019)

[7] Wojciechowski et al. (2004)

an interactive learning environment not only in school lessons but also at universities and in adult education[8]. VR offerings can be used, for example, to repeat experiments in virtual laboratories safely and free of charge[9] or to discover the history, geographical location and other information about cities[10]. 360° panoramas are an effective tool of conveying information and increasing interest in cultural assets and preserving them at the same time[11]. Other examples of interactive VR possibilities include 360° videos[12], which allow storytelling from a first-person perspective. Users can be motivated to discover all content through playful incentives, as in the example of[13] by collecting puzzle pieces.

VR offerings can provide access to remote, inaccessible or non-existent places due to their accessibility. Especially during the COVID-19 pandemic, travel restrictions increased online search queries for virtual reality tours and the desire for a virtual trip[14]. Tourism offers can be complemented by VR in many ways and are readily accepted by users[15]. On the one hand, a virtual presentation can be used for marketing purposes, but can also enable accessibility to places at risk of decay in terms of sustainability and nature conservation[16].

Chapter 2 - Best practices examples for AR and VR

To implement digital media and achieve a high level of accessibility, the necessary resources must be considered in a differentiated manner. Digital media can be created, presented and expanded in very different ways. For an audio or video recording, there are qualitative differences between a sound and film studio with professionals and a live recording with an amateur's smartphone - but above all financial differences. The criteria and decisions for media selection, media design and provision depend on the resources, strategy and objectives.

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[8] Liritzis et al. (2021)

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[10] Zarzuela et al. (2013)

[11] Ren and Chen (2021)

[12] Argyriou et al. (2020); Ivona Ivkovic et al. (2018); Selmanovic et al. (2018); Škola et al. (2020)

[13] Ivona Ivkovic et al. (2018)

[14] Talwar et al. (2023)

[15] Jung et al. (2017)

[16] Bec et al. (2021)

Today, the amount of technology required can be selected very differently and cost-effectively. There are many free tutorials and examples to help with the creation. Open-source products and free platforms can also be used for provision. These are decisive advantages for small cultural centres with limited resources.

2.1 Digital media in the form of VR and AR

There is a long history of how human spatial vision has been reproduced in painting since the 17th century and in photography since the 19th century. Typical interpretation patterns of our brain have been used as an aid Through overlapping, size distribution, brightness distribution and vanishing points in the image, something like a two-dimensional image was created. With the invention of photography and image projection, stereoscopic experiments were carried out towards the end of the 19th century using two cameras that simulated the position of the eyes. With a special projection device or viewing glasses that could filter colour channels, spatial image perception was already possible over a hundred years ago. Colour glasses in the 1980s made the first three-dimensional plastic television images possible for the general public.

When the analogue world went digital, new possibilities arose to recreate spatiality and create a virtual reality, so to speak. Virtual realities can also be created purely with computers. Examples of this are computer games in which entire worlds are created from 3D objects. However, for these to look realistic, they have to be created, textured and programmed at great expense. Laser scans, photogrammetry and panoramic photography are other ways of creating virtual realities. Unlike laser scanning, photogrammetry and panoramic photography combine photographic images to create a textured overall object with depth information. The high dimensional accuracy of laser scans for technical drawings or measuring procedures cannot yet be achieved with photogrammetry. However, photogrammetry and panoramic photography are superior to laser scanning for applications in marketing, tourism or education, as they can convey a more realistic spatial impression.

In photogrammetry, many photographs from different image angles and distances to the object or in space are combined to be able to depict spatial information. The object is usually rotated around its own axis and a 3D object is created. In 360-degree panoramic photography or 360-degree videos, the focus is on the photographic authenticity and quality of a room. The room or location as a whole is photographed in all directions, both 360° horizontally and 180° vertically. The camera rotates around its own axis to take pictures in all directions. The presentation can take place on a two-dimensional screen or with VR glasses. Control options enable virtual movement through the room. The aim is to create

the most perfect virtual imitation of real the place as if you were there. This imitation of the real or fictitious world is called virtual reality. The location can be experienced virtually regardless of the distance to the actual location.

In addition to VR, there is also AR - augmented reality. With AR, virtual objects are embedded in reality. In industry, AR formats are increasingly being used in remote diagnostics and remote support for specialists. But AR is also used in mobile games such as "Pokemon Go" or "Harry Potter Wizards Unite". As AR is always embedded in the real world, it can only be used on site during a personal visit.

Digital AR and VR formats can be found more and more frequently both in museums and in online marketing (see chapter Literature Review). As the creation of digital formats is often cost-intensive and requires specialised equipment or professional actors, the use of AR and VR is still in its infancy in financially weaker areas such as public education or among small or private owners of cultural assets.

Thanks to the growing number of special, fully automated 360° cameras, VR is becoming accessible to more and more people, even without expertise. In the following, we will therefore take a closer look at specific implementation options, didactic potential, accessibility and technical realisation.

2.2 Didactical Potential of VR

The decisive advantage of 360° panoramic images lies not only in their impressive spatial representation but also in the interaction of the viewer with the digital medium. Users can discover the space virtually according to their own preferences and without time pressure. They decide for themselves which perspective they take, what they look at more closely and what information they acquire. Educational material can be integrated in a variety of ways. These can be classic blocks of knowledge in text form or as an audio file or video. The integration of puzzles or quizzes can be used to query content. Search games can be used as a playful activity to find special features at the digitised locations. This variety makes it possible to find a target group-specific solution.

The more interesting the interaction offers are designed, the greater the motivation and benefit for users to engage with the knowledge content, whether at home or on-site. An online presence enables constant availability of the virtual location or content. Furthermore, an online presence can also be used after the personal visit to deepen the knowledge content. A lively exchange with others about the virtually accessible cultural assets is also possible from anywhere.

2.3 Accessibility with VR

There are many different forms of physical and cognitive impairments. In addition to the offers of assistance for on-site visits for motor, auditory and visual impairments in modules 3, 4 and 5, possible offers in digital form are discussed here.

For people with impaired mobility, a structural barrier often means that it is not possible to visit the site or certain rooms. In this case, digital formats offer very high replacement and supplement potential. Inaccessible rooms, objects or content can be easily accessed and experienced virtually. Depending on the motor impairment, voice control options or assistance tools can be incorporated to operate the VR environment.

In case of hearing impairment or deafness, knowledge content can be made fully understandable visually by, for example, subtitling videos or alternative texts for audio content.

Preparation for visual impairment is more complex. Depending on the degree of visual impairment, the following design decisions can already help by the usage of: large font and symbols, strong contrasts in font and images, clear content structure, and large graphic representations and images. If it is not possible to view the VR environment, an alternative with room and content descriptions is necessary. This can be accessed via a separate website, for example, which enables the rooms to be experienced audibly and the knowledge to be conveyed.

Regardless of the type of disability, simple language and clear structuring can also make the content accessible to people with cognitive impairments and people of all ages, from children to the elderly. The content can be presented in an easily understandable way using simplified graphics, pictures, stories or playful elements, for example.

2.4 Technical implementation of VR variants, effort and expected quality

Choosing between digital media to present your cultural assets is not always easy. Elaborate presentations and 3D models are often associated with high costs, a great deal of time and a lot of programming knowledge. This reservation applies in particular to the use of AR formats, which is why only VR formats are discussed below.

As the creation of VR content using modern technologies is multifaceted, the different variants, the effort involved, and the expected quality will be analysed in more detail. Panoramic photography will be discussed in particular, as this can also be done cost-effectively and in a short space of time. This chapter is intended to help you decide how and to what extent and at what cost modern technologies can be used.

Capturing the 360° images

The simplest variant is the fully automatic creation with 360° cameras, action cameras (prices from approx. 300 euros) or smartphones with a panorama function (not a complete spherical panorama). The image is created by combining two or more simultaneous shots with several fisheye lenses in the camera body or by continuous rotation in the camera itself. The technical knowledge required to operate the camera is very low and the time required to capture the image is minimal at just a few seconds. The finished panoramic image has an aspect ratio of 1:2. The image resolution depends on the camera used, as does the occurrence of image errors, offsets or ghost figures. If such errors are to be corrected, the images must be edited and retouched manually. This work is often time-consuming and requires appropriate software and knowledge.

For high-resolution panoramic images or for photographically difficult locations (different light qualities such as daylight, artificial light or different colour temperatures, high brightness dynamic range, narrow spaces, reflections, and light reflexes), a great deal of time and money is required to capture the images. A special panorama head, a tripod, a good digital camera and a good wide-angle lens are used to take between 24 and 168 individual shots (or even more). These series of shots are processed with professional image processing software and combined into a panoramic image (HDR image) using paid stitching software. The result provides very detailed and authentic room panoramas that can be zoomed in on and are therefore suitable for presentation on monitors or at exhibitions.
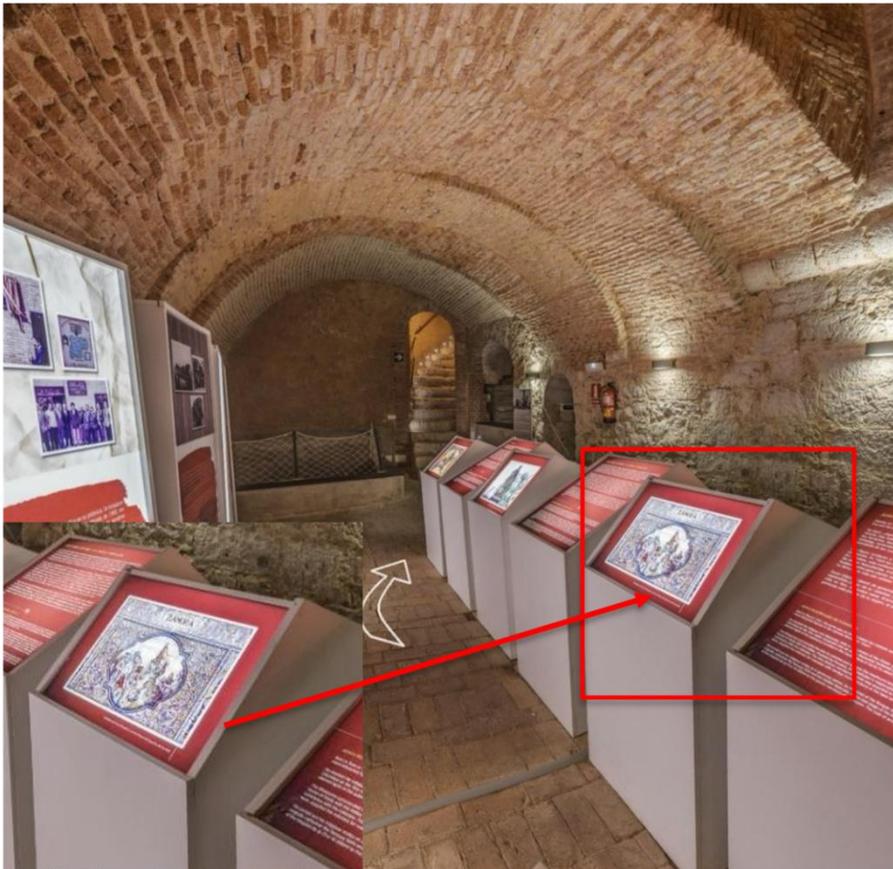
The creation of VR content

An HTML-compatible VR medium can be converted from the panoramic images using additional software, whereby several panoramic images can be combined to form a panoramic tour. This medium can be viewed and made available online or offline via a website or server. An internet browser or VR glasses can be used for viewing and the software is easy to learn to use. Providing the VR medium via a server requires also basic knowledge of servers and website programming.

The integration of learning content

The integration of additional content, whether text, video or games, requires additional information material on the one hand and good programming skills on the other. The time required for integration varies greatly and depends, among other things, on the amount of content and the form in which the content is presented. Depending on the target group for which the medium is designed and the degree of accessibility to be achieved, the complexity of the programming increases and with it the time required and the necessary programming skills.

The special feature of 360° videos

In addition to static 360° panoramic images, it is also possible to create 360° videos. This is of particular interest for events. With 360° videos, you can rotate 360° while the video is playing and take in different angles. This makes it look as if you are right in the middle of the action. There are different recording options for creating 360° videos, similar to classic panoramic recordings, which vary in terms of cost and time. Modern action cameras or 360° cameras offer a simple and relatively inexpensive option. The video can be created with resolutions of up to 4K or 8K. The calculation takes place fully automatically in the camera and can be made available immediately as a finished video on various platforms, such as the website or on social media. Professional camera systems consisting of several individual cameras are used for higher video quality, especially in poor lighting conditions. After recording, the individual videos are combined into a 360° video in the same way as the individual panoramic images. Unlike the individual panoramic images, no further educational content can be incorporated into the videos. To do this, still images would have to be extracted from the 360° videos and edited.

The use of expensive camera systems and the high technical effort involved in creating the films quickly exceeds the usefulness for small or private cultural organisations and is reserved for financially strong organisations that can hire professional production companies.

Chapter 3 - Practical advice for digital representation

In this section, we look at the practical approach to digitising a rural cultural asset.

In principle, any digital presence is better than none nowadays. However, before you start, you should discuss with all those involved what exactly you want to achieve. Should a digital presence be created to motivate people to come to this place or should the place be made digitally tangible, on-site or purely virtually. However, the two do not have to be mutually exclusive. You can start with an online advertising presence and then later expand this platform into an extended digital experience, for example with a panoramic tour.

In practical terms, the simplest and most effective way to draw attention to your company is to establish a social media presence. With little prior knowledge, you can draw attention to this location and distribute information without any knowledge of web development or search engine optimisation.

If a small monthly budget of a few euros is available, a website should be created using a so-called website construction kit in addition to the social media presence. This is possible for any technically skilled layperson for a small monthly fee. Above all, it is important to maintain a stringent structure and to work with less text and more images. When selecting a website builder, it is also important to choose a platform that allows alternative texts to be stored for visually impaired people.

As these website construction kits only reflect a part of the possibilities of an individually developed website, a professionally developed website should be considered for a somewhat larger one-off budget. A professional website has the advantage that it generates one-off costs and can then ideally be updated with new content by non-professionals without generating high costs regularly. The web developer must be selected according to their knowledge of accessibility standards and accessibility must be insisted upon. The owner of the website should use an automatic test tool such as the WAVE tool to check whether the website is sufficiently accessible when the website is finally approved.

In general, a specially developed app for mobile devices incurs high initial costs and also high follow-up costs, as an app must be regularly adapted to new operating system versions of mobile devices. In addition, a layperson cannot normally update the content of the app. There is also a high dependency on the app developer for ongoing development and updates. To summarise, an app can only be recommended if, for example, VR or AR content is to be included that would not be possible on a browser-based platform.

Images play an extremely important role in any digital presence. Today, high-quality smartphones already have good camera systems that are sufficient for digital media. If there is a small budget, an all-in-one 360° panoramic camera can already provide good spatial impressions of the location. However, the quality is visibly inferior.

From the budget of a professionally created website, a budget for a photographer should also be considered for professional images or preferably 360° panoramas.

A complete digital experience can be achieved on a large budget with the help of a professional website with high-quality images and high-resolution 360° media. Additional content can then be programmed into the 360° media to create an almost complete digital experience.

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HeritAccess: access to culture and heritage in rural surroundings through the interactive

digital experience

PROJECT No 2022-1-ES01-KA220-ADU-000086106

HeritAccess Guide

Module N₀. 7 - Accessibility Action Plan development

Module No. 7 - Accessibility Plan development

1. Introduction to the topic

1.1 Definition of the topic

Ensuring access to rural heritage for people with disabilities is essential to promote inclusion, and have the opportunity to experience, appreciate and learn from the cultural, historical and natural assets in rural surroundings. Rural heritage often includes traditions, landscapes, architecture, crafts and other elements that contribute to the identity and character of rural communities. The HeritAccess Guide will serve as a collection of guidelines on how to manage to make accessible a rural heritage, including standards and advice.

Accessibility in the tourism and cultural heritage sector, with around 87 million people with disabilities and an ageing EU population, is crucial[17]. Accessibility for people with disabilities is broad and includes accessibility to infrastructure and services, accessibility to information in destinations or on the Internet, information on the accessibility of tourist services, etc. Furthermore, the UN Convention on the Rights of Persons with Disabilities[18] recognizes the right of persons with disabilities to take part on an equal basis with others in cultural life and enjoy access to places for cultural performances or services, such as museums, cinemas, libraries and tourism services, and, as far as possible, enjoy access to monuments and sites of national cultural importance, and also have access to cultural materials in accessible formats. In addition, the Strategy for the rights of persons with disabilities 2021-2030[19], encourages equal opportunities and access to culture and tourism and strives to make cultural heritage accessible.

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[17] https://single-market-economy.ec.europa.eu/sectors/tourism/eu-tourism-transition/resilience-eu-tourism_en

[18] https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/article-30-participation-in-cultural-life-recreation-leisure-and-sport.html

[19] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0101

It is worth mentioning that in the European Agenda for Tourism issued in 2030[20], accessibility of tourism services with the main goal of "Enhancing social and economic inclusion, taking into account the elderly, persons with disabilities and other groups with specific needs" is a key topic in Priority area "Resilience and inclusion", raising awareness of the importance of accessibility in tourism in order to improve accessibility and create favourable conditions for accessible tourism services. Therefore, it is important to provide the tools and means to make rural heritage sites more inclusive, allowing people with disabilities to fully enjoy and appreciate the cultural and historical richness of these sites, one such tool is the Accessibility Plan.

1.2 Why this topic is important?

Managing access to rural heritage for people with disabilities and the elderly is critical to promoting inclusivity and equal access. This module will suggest the development of an Accessibility Plan based on the needs of visitors with disabilities as a tool that will facilitate accessibility for people by providing them with the necessary information.

The access plan will provide guidance on the accessibility of the site (accessible entrances, availability of special parking spaces), will indicate the various activities included in the rural heritage site, accessible tours, assistive technology and other resources and meet the needs of visitors with disabilities (accessible audio and video content in Braille or sign language), and adapted facilities for people with disabilities. This topic is important because it explores access to rural heritage sites ensuring that people with disabilities and older people are not excluded from experiencing and appreciating the cultural heritage of the market place. It is understood that inclusivity is a fundamental aspect of society that promotes equality and respect for all individuals regardless of ability or age.

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[20] https://data.consilium.europa.eu/doc/document/ST-15441-2022-INIT/en/pdf.

2. Learning objectives & outcomes

Module 7 "Accessibility Plan development" of the HeritAccess Guide, which will support the development of an access plan that instructs and provides guidance on the accessibility of the rural heritage sites to facilitate the experience for the disabled, outlines the following learning objectives and desired outcomes.

2.1 Learning objectives

Below are described the learning objectives that this module will support:

- **Understanding Disability and Providing Support:**
  Owners and/or managers will gain an understanding of the unique needs associated with physical impairments and the need for the development of the Accessibility Plan in their rural heritage sites, providing them with instructions on how to manage and make them more accessible.

- **Creating Inclusive Disabled-friendly Environments:**
  Owners and/or managers will understand and learn how to develop an accessibility plan and create disabled-friendly environments in rural heritage sites, providing clear information and guidance to best welcome them to their visiting premises.

- **Emergency Preparedness:**
  Owners and/or managers and staff will develop knowledge and skills related to emergency preparedness and evacuation plans that prioritise the safety of people with disabilities.

- **Effective Communication with people with Disabilities:**
  Owners and/or managers and staff will develop skills in effective communication with people who have various disabilities and elderly, including verbal and non-verbal communication strategies (digital maps, signs).

- **Support of the Rural Heritage Sites Attractiveness:**
  Supporting small and medium-sized heritage in rural areas where the attractiveness is reduced due to a lack of private initiatives, and strengthening it through tools that favour and support the access of the elderly and people with disabilities.

2.2. Learning outcomes

The knowledge and skills that the reader (rural heritage owners, managers, staff, and tourism companies) will acquire at the end of this module will create multiple positive impacts and benefits, which can be summarised as follows:

- **Accessible Heritage Sites:**
  This module will serve as a practical tool for rural heritage site owners and managers, resulting in actual improvements to their rural sites' accessibility.

- **Improved Visitor Experience:**
  Visitors with disabilities will experience improved access and engagement with rural heritage sites, resulting in a more positive and rewarding experience.

- **Increased Awareness and Sensitivity:**
  Rural heritage site owners, managers, and staff will demonstrate increased awareness and sensitivity to the needs of people with disabilities, establishing a more inclusive and welcoming environment.

- **Compliance with Accessibility Standards:**
  Rural heritage site owners, managers and staff will understand and comply with relevant accessibility standards.

- **Community Involvement and Support:**
  This module will facilitate community involvement and support, encouraging owners, managers, and local community to actively participate in creating accessible and inclusive rural heritage experiences.

- **Improvement and Adaptation:**
  This module will serve as a resource, encouraging improvement and adaptation based on feedback, changing technologies, and evolving accessibility standards.

3. Learning contents

Chapter 1 - Literature review

In the article *"Accessible tourism as the factor in creating the Image of Serbian wineries as a segment of agritourism supply"* it is outlined that wine tourism includes independent or organised visits to vineyards, wineries, wine festivals, and wine exhibitions with the aim of tasting and experiencing wine through a visit to a wine-growing region. Among the most important elements of wine tourism are: hospitality, expertise of winery staff in wine matters, wine festivals, attractive landscapes, affordable accommodation, availability of information, gastronomic specialities, traditional wine villages, etc. More specifically, wine tourism is closely linked to rural tourism. In particular, the supply of wine tourism involves rural areas because the vineyards and cellars, which are the main elements of wine tourism, are usually located in rural areas.[21]

Strategies and measures to create enabling rural heritage environments should have the effect of allowing people with different accessibility requirements to make informed decisions about whether accessible destination experiences are appropriate for their needs. Owners and

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[21] https://www.researchgate.net/publication/338871882_Accessible_tourism_as_the_factor_in_creating_the_image_of_Serbian_wineries_as_a_segment_of_agritourism_supply

managers of these sites should undertake a search and brief review of relevant legislation on the requirements and standards that sites must meet to address discrimination based on disability and how the environment should be structured to develop accessible tourism.

According to Darcy and Dickson (2009) in their article *"A Whole-of-Life Approach to Tourism: The Case for Accessible Tourism Experiences"*, accessible tourism enables people with accessibility requirements including disability, vision, hearing, cognitive and physical dimensions of access, to function independently and equally through the provision of universally designed services and environments. This article also highlights the importance of developing a strategic approach to accessible tourism, by describing the relationship between accessibility, disability, ageing and tourism accessible tourism, which requires a process based on three important values[22] :

- independence
- equality
- dignity

When these three values are applied to a destination, in the design and development of the experience, all people with accessibility needs will be able to travel more independently, thus requiring less support, and at the same time be able to enjoy the destination with equality and dignity. More specifically, tourism organisations need to consider more than simple physical accessibility requirements for rural heritage sites, such as road design, transport and accommodation. However, the development and delivery of accessible experiences in destinations must be based on an experiential approach to enhance the experience and develop processes to incorporate factors that facilitate accessibility and understanding of these experiences.

A best strategy/practice for accessibility to rural heritage sites is one that is transferable and adaptable and has a tangible impact on improving people's experiences. The main categories of strategies/practices developed for the study "BEST PRACTICES IN TOURISM ACCESSIBILITY FOR

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[22] https://www.researchgate.net/publication/235993187_A_Whole-of-Life_Approach_to_Tourism_The_Case_for_Accessible_Tourism_Experiences

TOURISTS WITH LIMITED PHYSICAL ABILITIES" were selected to identify and address initiatives from different aspects of tourism accessibility and are as follows[23]:

- **Transportation**

This category of strategies/ practices mainly concerns:
Policies and procedures of organisations, and Evaluation methods and tools.

- **Physical planning and accessibility**

This category includes:
Evaluation methods and tools, Certification methods, tools, and labelling, and Support mechanisms and development tools.

- **Research and development**

This category of strategies/ practices mainly concerns:
Knowledge of the market (stakeholders' expectations and needs), Information gathering and use techniques, and Financial support for the development and upgrading of businesses towards accessibility.

- **Information and promotion**

This category includes:
Mechanisms for communicating accessibility standards, Facilities and infrastructure specifically for people with disabilities, Method of disseminating information about services, facilities and attractions.

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[23] https://www.accessibletourism.org/resources/11_best_practices_toursim_apec_en.pdf

- **Training**

This category includes training regarding:
Customer service, hospitality and guiding specialised for people with different needs/requirements.

- **Travel**

This category of strategies/ practices mainly concerns:
Collaboration with travel industry organisations, specialist travel agencies and the provision of specialised individual or group tours to ensure a comprehensive experience, accessible to all.

- **Innovation**

This category includes:
Participation in innovative projects that promote accessibility and equal rights.

- **Organizations dedicated to tourism for disabled persons**

This category of strategies/ practices mainly concerns:
Synergies with organisations representing and promoting human rights especially rights for disabled people, as well as networking and partnership.

Chapter 2 - Best Practices

Ensuring accessibility to rural heritage sites is critical for providing inclusive experiences for all types of visitors, especially those with impairments or the elderly. Additionally, the creation of an Accessibility Action Plan/Strategy for people with disabilities in rural heritage sites

requires a thorough and deliberate approach, which should be developed by the heritage sites and more specifically the site owners/managers. An Accessibility Action Plan with specific reference to people with disabilities should usually be developed in the context of a broader vision of access, which includes equal opportunities, cultural diversity and social inclusion in relation to disability.

It is important for rural heritage sites to establish a cross-departmental steering committee or working group to support the development and implementation of the Accessibility Action Plan to promote disability and inclusion issues, removing any difficulties and physical barriers. Such a committee according to "Disability Directory for Museums and Galleries"[24] should:

1. be headed by a member of senior management, making recommendations and proposing actions to the governing body
2. have a clearly defined role and responsibilities
3. be informed by ongoing consultation with people with disabilities
4. include regular review, evaluation and modification of improvements
5. be carefully and clearly positioned in the decision-making process
6. be open to suggestions from all members of staff
7. include an effective feedback mechanism for all staff
8. Meet regularly, the frequency depending on the stage of development may be at least once a month, monitoring the Accessibility Action Plan
9. meetings of each newly established team should include a disabled person for feedback regarding disabilities and difficulties

The Accessibility Action Plan/Strategy will be a gradual process to ensure that barriers to the full enjoyment of the heritage of rural sites are removed on a planned timetable. The strategy will include[25] *(Talking about accessibility, inclusion, and usability: a discussion for a new International Committee):*

A. Knowledge of the current situation and the needs to be met
B. Drawing up a coordinated plan of interventions according to a scale of priorities

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[24] https://www.accessibletourism.org/resources/uk_museumsand-galleries_disability_directory_pdf_6877.pdf
[25] https://www.icom-italia.org/wp-content/uploads/2019/07/TizianaMAFFEI.pdf

C. Identifying solutions that are never standardised, but are precise and original and work in a universal design logic

Also, the Accessibility Action Plan/Strategy will take into account the principles of Universal Design - Design for all: creating a living environment and products accessible to all categories. The principles with which it must be in line are[26]:

1. Equity/Fairness - fair use: usable by anyone.
2. Flexibility - flexible use: adapts to different skills.
3. Simplicity - simple and intuitive use: the use is easy to understand.
4. Perceptibility - the transmission of actual sensory information.
5. Error tolerance - minimize risks or unwanted actions.
6. Containment of physical effort - use with minimal fatigue.
7. Sufficient size and space - make the space suitable for access and use

*More specifically, here are some **aspects and best practices** to consider in developing such an Accessibility Plan/Strategy to provide cognitive and sensory accessible experiences:*

Compliance with national and international regulations:

✓ Familiarize yourself with national and international accessibility regulations and standards, ensuring that your project is aligned with the requirements and guidelines set out above.

✓ Apply design principles to create environments that are accessible and welcoming to all, regardless of their abilities.

Evaluation of the site:

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[26] https://rm.coe.int/presentation-rodolfo-cattani/168076474c

✓ Conduct a thorough assessment of the accessibility of the rural heritage site. At this point, the identification of barriers and challenges for people with different disabilities should be done. Furthermore, the physical, sensory and cognitive aspects of accessibility should be considered.

Document and report:

✓ Document the accessibility plan, including objectives, actions, and results. So, Report progress regularly sharing with stakeholders and other interested parties, both accomplishments and challenges.

Accessibility Map:

✓ Create and provide an accessible map of the site with accessible routes and facilities marked (e.g., disabled toilets). This could be displayed on the site itself or printed for the convenience of participants who may need it and could be available electronically.

✓ Mark out the paths, trails, and accessible routes.

✓ Point out places where there are noticeable variations in elevation and include details on accessible paths or ramps.

✓ Draw attention to locations with wheelchair-accessible slopes and surfaces.

✓ Designate accessible locations, such as rest spots, picnic spaces, views, and historic sites, use symbols or icons.

✓ Highlight important landmarks, historical locations, and areas of interest. Provide details on these locations' historical significance.

Figure 1. Accessibility plan (source: https://www.heightsofabraham.com/plan-your-visit/accessibility)

✓ Make a note of significant natural features, such as hills, and water, and specify if they are accessible.

✓ Mark bus stops or specified locations for pick-up and drop-off of accessible transportation services.
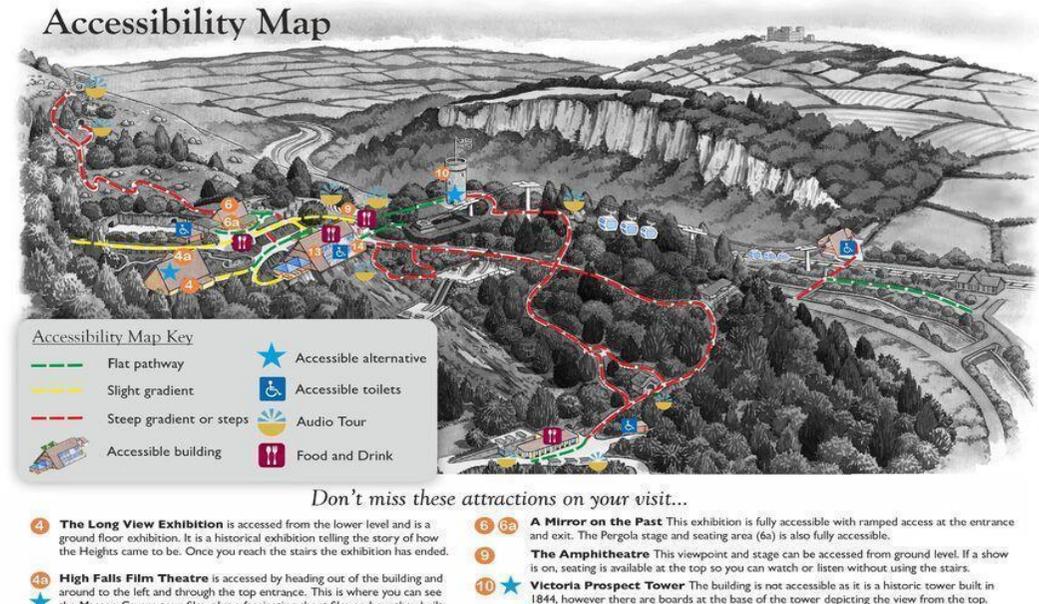
✓ Send out a note outlining each symbol's meaning.

Evacuation Plans & Emergency Preparedness:

✓ Develop and communicate clear emergency evacuation plans that consider the needs of individuals with disabilities, ensuring their safety during unforeseen events

Staff Training:

✓ Cultivate a good internal culture, as it is very important, as even when specialised staff (steering committee) have been appointed to develop the provision of services for people with disabilities, all staff must be aligned with the goals of the Accessible Action Plan of the rural site and the way it relates to people with disabilities, creating a supportive environment[27].

✓ Train staff to be aware of the difficulties they face, to be sensitive to the needs of visitors with disabilities and to use language inclusively. Additionally, it is important to train staff to understand how to assist people with various disabilities and provide clear information when needed.

Figure 2. Online Accessibility (source: https://www.accessconsultancy.ie/10_Ways_to_Make_Your_Website_Accessible)

✓ Train tour guides to provide inclusive tours, taking into account the needs of visitors with disabilities and adjusting the pace and content accordingly.

Monitoring & Evaluation (accessibility checks/surveys):

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[27] https://www.accessibletourism.org/resources/uk_museumsand-galleries_disability_directory_pdf_6877.pdf

✓ Conduct regular accessibility audits/research to identify potential barriers and challenges and implement improvements and new recommendations. Encourage feedback from disabled visitors to assess existing satisfaction and identify shortcomings.

Information and promotion:

✓ Develop a communications plan to inform the public about accessibility improvements. Additionally, provide information using a range of communication channels, such as the website, social networking pages, e-newsletters, and community outreach activities. Off-site information actions provide visitors with useful information to know in advance the characteristics and conditions of the site they are going to visit and to plan better their journey[28].

Online Accessibility Information:

✓ Ensure that the official website and online resources related to the rural heritage site are accessible to individuals with disabilities, including those using screen readers or other assistive technologies.

Local Community & Stakeholder Participation:

✓ Establish partnerships with local disability organisations, associations, and accessibility experts to draw on their expertise and gather information about the accessibility plan.

✓ Involvement of stakeholders, local communities, heritage managers and competent authorities, in the planning process to ensure that the different needs are met by considering different perspectives.

Planning inclusive events/activities:

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[28] https://www.researchgate.net/publication/318661794_Accessibility_to_archaeological_sites_From_the_accessibility_dimensions_to_an_access_strategy

✓ Plan inclusive events, workshops and training programmes that reach diverse audiences, including people with disabilities.

*Furthermore, a rural heritage site should consider the **following key components** while establishing its Accessibility Plan/Strategy to create an inclusive setting that allows everyone to experience the cultural, historical, architectural, or artistic significance of rural heritage sites.*

Accessible Pathways & Parking spaces:

✓ Install ramps, smooth and well-maintained pathways, and accessible entrances to ensure that individuals with mobility impairments can navigate the site easily.

✓ Provide accessible parking spaces close to the entrance for visitors with disabilities.

Adaptive Facilities:

✓ Incorporate accessible restrooms and facilities to accommodate the needs of individuals with disabilities.

Figure 3. Sings (source: https://prosafeliving.com/product/prosafe-braille-signage-directional-building-layout-map-directory/)

✓Ensure that visitor centres and information points are designed to be accessible, with appropriate counter heights and pathways.

Technology Solutions and Descriptive Tours:

✓ Integrate technology solutions such as audio guides, tactile maps, and interactive exhibits to enhance the experience and to provide detailed information for visitors with visual or hearing impairments.

✓ Implement smartphone apps with accessibility features that provide information about the heritage site through audio descriptions or text-to-speech functionality.

Information Signs & Braille Signage:

✓ Large signage throughout the site. This includes toilets, lifts and any other signage that is available to the general public. Venues should also take great care to ensure that signs are properly designed and placed in locations that are easy to find[29]

✓ Braille signage is essential for making buildings and facilities accessible and inclusive for visually impaired people. Use Braille and tactile signage to convey important information, instructions and descriptions for visually impaired people and facilitate their independent navigation[30].

Figure 4. Sensory experiences (source: https://www.travelwisconsin.com/article/museums-history/art-history-for-all-4-wisconsin-museums-prioritizing-accessibility)

✓ Provide tactile elements that allow visitors to touch and receive information about the heritage site's history by touch.

Accessible & Sensory Tours:

✓ Create sensory stations with materials related to the heritage site, allowing visitors to activate their senses through touch, smell and sound.

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[29] https://chicagolighthouse.org/sandys-view/accessible-museums/

[30] https://modulex.com/uncategorized/empowering-everyone-the-importance-of-braille-in-signage/

✓ Create exhibits, boards, displays, etc. that activate multiple senses, providing tactile evidence for touch and descriptive sound for the visually impaired. This improves inclusivity and interactivity, providing a better overall experience for all visitors.

✓ In addition, a particular aspect to consider is that lighting should be sensory-friendly. In particular, consider the lighting conditions to ensure that they are suitable for visitors who are sensitive to bright lights. Natural lighting or dimmable lighting options can be an important solution.

Resting Areas:

✓ Provide accurate information about the physical environments of the site and the obstacles they are likely to encounter, for example: the distances they have to be covered in the premises, and whether there are adequate resting places and seating[31].

✓ Create safe and quiet seating areas at regular intervals to accommodate people who may need rest or people using mobility aids.[32]

✓ Establish eating and rest areas at regular intervals throughout the site inside and outside the site to accommodate visitors who may need time to reset and eat, making short breaks due to mobility or fatigue.

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[31] https://www.accessibletourism.org/resources/uk_museumsand-galleries_disability_directory_pdf_6877.pdf

[32] https://hirespace.com/blog/tips-for-inclusive-events-accessibility-guide

Transportation Options:

Figure 5. Transportation options (source: https://www.goodnet.org/articles/6-most-disabilityfriendly-travel-destinations)

✓ Provide accessible transport options, such as small wheelchairs or shuttle bus services, to help visitors with mobility difficulties navigate larger sites and rural areas.

✓ Provide bus services, with the introduction of low-floor bus services with designated wheelchair spaces. Bus stops should be strategically located at key points within the site, including entrances, attractions and rest areas.

✓ Provide small and flexible wheelchairs for visitors with mobility difficulties. Information on wheelchair provision must be provided on the rural site's website.

The provision of an accessibility plan/strategy to visitable rural heritage sites, including the provision of the useful tool of an electronic map for visitors is very helpful for people with disabilities. This is because they can understand the site and all the points of interest for themselves and make the most out of their visit. In addition, they can download it to their phones and access it whenever they need it. As it turns out, 84% of disabled people use a smartphone[33]. Seeing that some rural sites are large, being able to find the main entrance, orientate oneself and know exactly where the accessible equipment such as cafeterias and restaurants, accessible restrooms and shops, is located is extremely convenient. For example, as also referred to in the article "How to Make Museums More

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[33] https://www.inclusivecitymaker.com/how-to-make-museums-more-accessible-for-people-with-disabilities/

Accessible for People with Disabilities?" the Met in New York is the 5th largest museum in the world and was the most visited museum in the US in 2019 with 6,770,000 visitors. Its online map is well-designed to help every visitor enjoy their visit.

Chapter 3 - Case Studies

1. <u>Bodegas Valdemar, Spain</u>

Figure 6. Accessibility in Bodegas Valdemar (source: https://valdemarfamily.com/en/pioneers/accessibility/)

In 2017, at the request of a group of people with disabilities, the Wine Tourism department decided to adapt the winery's facilities to make them accessible to all. Specifically, Valdemar's primary goal was to make the winery open to the whole world, creating a sensory experience based on the senses that unite us all: smell, touch and taste. Thus, offering a space for everyone, adapted and visitable without exclusion. So, whatever the needs of visitors, everyone enjoys the same experience on the same tour.

In 2018, they became the first European winery to offer 100% of the wine in the accessible and customised wine tourism visit (Great Wine Capitals) and as a result, the strategies followed and efforts made have paid off. Valdemar statistics show that 20% of visits by people with disabilities are limited to people with permanent sight, hearing, physical, cognitive and instrumental, leaving many visitors behind. Valdemar supports family tourism, i.e. grandparents with their grandchildren and many families with small children and prams. Valdemar offers two tours, and all can experience them, whether they have a disability or not.

It must be noted that the visits can offer braille and easy-to-read booklets, wine bottles with braille labels, and QR codes with videos and subtitles. Also, the visitor can hire a sign-language interpreter, and a wheelchair is available[34].

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[34] https://repositorio-aberto.up.pt/bitstream/10216/157094/2/659353.pdf

As mentioned on the winery's website the accessibility project was implemented at both of its wineries (Bodegas Valdemar and Valdemar Estates)[35].

2. King Estate, North America

The King Estate Vineyard was founded in 1991, and it was driven by a commitment to sustainability and profound respect for the land. Vineyard strives to ensure that its services are accessible to people with disabilities, which is why it has invested a significant amount of resources to help ensure that its website is easier to use and more accessible for people with disabilities, with a strong belief that every person has the right to live with dignity, equality, comfort and independence[36].

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[35] https://valdemarfamily.com/en/pioneers/accessibility/

[36] https://kingestate.com/accessibility/

Furthermore, the King Estate features the UserWay Website Accessibility Widget powered by a dedicated accessibility server. The software allows King Estate to improve its compliance with website content accessibility guidelines.

The King Estate sets an example as it continues its efforts to continuously improve the accessibility of its website and services, believing that it is a collective moral obligation to

Figure 6. Accessibility in King Estate (source: https://kingestate.com/accessibility/)

ensure that it is seamless, accessible and unhindered for those with disabilities.

3. Museum Maison Victor Hugo, France

This museum presents stories about the life of Victor Hugo, is located in Place des Vosges in Paris is part of the Paris Museum Group and represents an example of an accessible tourist site. For several years, it has been working to provide access to world culture for all. Since 2005, the Maison de Victor Hugo has been committed to an active policy of welcoming all visitors. It uses

Figure 7. Accessibility in Museum Maison Victor Hugo (source: https://www.maisonsvictorhugo.paris.fr/en/paris/visit/accessibility)

all the technical and human resources to ensure that visitors with disabilities can visit the museum independently[37]. Due to the success of this initiative, the museum has been awarded the Tourism and Disability label for welcoming people with physical, hearing, cognitive and visual disabilities.

The Maison de Victor Hugo provides information on all possible means of access, creating tools and special facilities to optimize the arrival of people with disabilities at the museum. Wheelchairs and comfort seats are available, the layout and design of each exhibition have been improved and there are also parking spaces for the disabled. There are several improvements to make museum tours easier for visually impaired people. A geolocation system linked to a terminal located at the entrance of the museum allows for quick pick-up by reception staff and self-

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[37] https://www.maisonsvictorhugo.paris.fr/en/paris/visit/accessibility

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guided tours using the "Evelity tour" app, which visitors can download for free. In addition, hearing aids with magnetic induction loops can be borrowed free of charge by people with hearing problems.

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D. Conclusions

Conclusions

The HeritAccess guide is a comprehensive effort to address the pressing need for accessibility to rural heritage sites. Outlining a series of modules, this guide offers a structured approach to understanding and addressing the challenges faced by people with disabilities when accessing rural sites of cultural, historical and architectural interest.

Module 1 serves as a fundamental introduction, highlighting the importance of realising the vision of accessibility to rural heritage. It describes the situation and identifies existing barriers, setting the stage for the next ones that will address these issues head-on. Module 2 examines the specific challenges and barriers faced by people with disabilities when accessing heritage buildings and sites. Through a thorough literature review, this module provides valuable insights into the multifaceted nature of accessibility issues, laying the groundwork for targeted interventions.

Modules 3, 4 and 5 offer practical guidelines for improving accessibility in a number of areas, including wheelchair accessibility, hearing and visual accessibility. Integrating architectural improvements with digital technologies, these modules present a holistic approach to enhancing inclusivity in rural heritage sites.

Module 6 explores the role of modern technology in promoting accessibility in rural areas. Utilising innovative solutions such as digital mapping and augmented reality, this module shows how technology can serve as a powerful tool for removing physical and practical barriers.

Finally, Module 7 describes the development of a comprehensive accessibility plan tailored to the needs of visitors with disabilities to ensure that rural heritage sites are welcoming and accommodate all people, regardless of their abilities.

In conclusion, the HeritAccess Guide represents a significant step towards making rural heritage sites more accessible and inclusive. By addressing barriers and providing practical solutions, this guide empowers heritage owners, tourism companies, and personnel to embrace innovation and modernize their practices in alignment with the demands of the 21st century. Moreover, by emphasizing sustainability and transferability, the guide ensures that its impact extends beyond individual sites, fostering a culture of accessibility that benefits diverse communities across different landscapes and environments.

HeritAccess: access to culture and heritage in rural surroundings through the interactive digital experience

PROJECT No 2022-1-ES01-KA220-ADU-000086106

HeritAccess Guide

"A collection of guidelines on how to make a rural heritage accessible"