\ Report 3.2.
"Sustainability in the field of Culture and Tourism"

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Introduction and general context

Sustainability principles refer to the environmental, economic, and socio-cultural aspects of tourism and culture development. In order to ensure long-term prosperity of a destination / region, a careful balance must be established between these three dimensions. To achieve this, sustainability focuses on:

- Optimizing the use of environmental resources, as a critical component of tourism development because one of the primary concerns of sustainability as a concept is preserving natural heritage and biodiversity for future generations
- Respecting and preserving host communities' socio-cultural authenticity, preserving cultural heritage and traditional values, and contributing to inter-cultural understanding and tolerance especially in the context of the dangers of misunderstood modernism (kitsch), which comes with globalization and improved accessibility in tourism and threatens to alter and even destroy local authentic heritage
- Assuring long-term economic viability, providing socioeconomic benefits to all stakeholders, and making efforts to ensure equitable distribution of these benefits. This includes providing stable employment and income-generating opportunities to host communities, as well as contributing to poverty alleviation
- Maintaining a high level of tourist satisfaction and providing tourists with a meaningful experience, raising their awareness of sustainability issues and promoting sustainable practices among them through the use of skilled tourism interpretation methods

As beneficial as it sounds, sustainable development requires the informed participation of all relevant stakeholders, as well as strong political leadership to ensure broad participation and consensus building. Many people are unaware that achieving sustainable practices in tourism and culture is a continuous process that needs constant monitoring of impacts and the implementation of necessary preventive and/or corrective measures whenever necessary.

Given the importance of comparable and reliable territorial evidence, Action 4 of the revised PA3 Action Plan emphasizes the need for a continuous integrated transnational network of entities (observatories) that will collect, process, and analyse data, as well as exchange and disseminate information on sustainable tourism development. Based on competent research, the network will serve as a resource centre for monitoring the sustainability of tourism.

The core philosophy of a sustainable tourism observatory is that by using systematic monitoring, evaluation, and information management techniques, policymakers, planners, tourism managers, and other relevant stakeholders will have key tools to support the formulation and implementation of sustainable tourism policies, strategies, plans, and management processes.

The network of observatories could potentially:

- provide an integrated approach and a framework for systematic, timely, and regular monitoring of resource use, as well as a better understanding of tourism's impact.
- establish a solid foundation of tangible and structured data for well-informed decision making by providing evidence and comparison tools
- actively involve local stakeholders in the measurement of risks, costs, impacts, limits, and opportunities using an inclusive and participatory approach

- create a learning platform or network and share information to improve knowledge, collaboration, communication, and public accountability
- monitor and advise on the implementation of sustainable development plans, policies, and management actions
- maintain continuity to encourage long-term commitment to regular monitoring

According to the UNWTO, over the past decade, „many indicator systems have been developed in and outside of the tourism sector in an attempt to support destinations in measuring and managing their tourism development. While the ability to benchmark performances with other destinations is often a driving factor behind these initiatives, each destination is a complex eco-system with its own individual characteristics. With this in mind and knowing that sustainability is a continuous journey, a monitoring system should focus particularly on the underlying processes and structures in order to ensure long term viability and holistic, destination-specific approaches that are based on participatory processes".

Therefore, destinations are required to monitor at least to some extend the main areas of interest, but are encouraged to go even beyond:

- Seasonality
- Employment
- Economic benefits
- Governance
- Local satisfaction

- Wastewater management
- Energy management
- Water management
- Solid waste management

For these common themes, specific indicators can then be analyzed according to the local needs, under the condition that they would be linked to these areas. Through the regular exchange of knowledge and experience with other destinations, they can be defined, adapted, and compared as needed. Participatory approaches are fundamental for successful sustainability initiatives which could be permanently strengthened during all phases of development of a tourist destination.

Danube Region countries have already taken a few steps in this direction, as well as modernizing their overall national statistics systems. Each year, new features and data collections are added to the yearly catalogue, but in the case of tourism, the emphasis is on quantitative data rather than qualitative information. As a result, the data gathered is not yet relevant for sustainable development. Once the accuracy and capacity building issues are resolved, a comprehensive monitoring system will become more feasible for the region.

Sustainability and Sustainable Development in Culture and Tourism

Tourism

The tourism industry, one of the fastest growing in the world, is increasingly understood to play a significant role in the creation of wealth and jobs, economic development, and poverty alleviation. In fact, properly planned and managed tourism can promote peace and intercultural understanding while also preserving the natural and cultural resources on which it depends. It can also strengthen host communities and create trade opportunities. However, the increase in domestic and international travel each year also puts pressure on the management of resources, local communities, and cultural assets, as well as the impact on greenhouse gas emissions and economic leakages.

At the local scale, concerns regarding the tourism contribution to sustainable development have also become an issue following a series of high-profile adverse reactions to tourism growth in destinations such as Barcelona, Venice, and Dubrovnik. As a result, they are now part of broader policymakers' responses to tourism's alleged "success". Sharpley (2020) specifically addresses these sustainable tourism concerns in a recently published perspective article on tourism and its role in sustainable development, emphasizing sustainable de-growth (de-growth requires a reduction in both production and consumption on the global scale along with a fundamental shift in society's understanding of the relationship between consumption, wealth and well-being) as a global pathway to personal and societal well-being. According to the author, many places still rely on the tourism industry for their economic well-being.

At the same time, a more radical approach was put forth by Higgins-Desbiolles et al. (2019), who argued that tourism should be redefined from a business sector for profit accumulation to a human endeavour based on the rights and interests of local communities in welcoming tourists. The authors contend that current conflicts resulting from over tourism are a wake-up call for many cultural tourism destinations. The United Nations World Tourism Organization (UNWTO) notes that in order to "reset" tourism on a local level, measures must also focus on local stakeholders. All tourism stakeholders must work together effectively and take decisive action in order to maximize the sector's positive impact on sustainable development and reduce its negative effects.

Culture

When talking about regional resilience and sustainable development, the cultural also plays a crucial role, as employment opportunities are created, tourism development and entrepreneurship are influenced, and so are increased income for the local population and tax receipts for the government. The social cohesion, inclusion, participation, and general well-being of the local community are additional indicators of its contribution to ensuring social sustainability. It may equally ensure environmental sustainability in promoting greener economy and climate adaptation as well as cultural sustainability since heritage is often featured in literature, films, music and visual arts. At the same time, heritage is frequently used in (in)formal education or is a topic of various research, therefore it also plays a huge role in education and science (Jelincic et al., 2020).

It is estimated that "cultural tourism accounts for 40% of all European tourism; 4 out of 10 tourists choose their destination based on its cultural offering" (EC, 2022), and "it is safe to assume that the majority of tourist attractions and destinations in the world today are based on elements of cultural heritage" (Timothy, 2011).

In this context, to ensure heritage sustainability and a positive impact on the economy, society, environment, and culture of a territory, adequate public policies must be developed that can support investments in cultural heritage and stimulate the development of sustainable tourism. Such policies require regular monitoring and evaluation, which is rarely carried out in practice, to assess their performance and overall impact. However, there are only few research studies focusing on cultural heritage sustainability indicators, and those relating to decision-making indicators are even rarer (Jelincic et al., 2020; Vecco & Srakar, 2018; Nocca et al., 2017).

Statistics, indicators, and data on the cultural sector have demonstrated over the last decade that culture can be a powerful driver of development, with community-wide social, economic, and environmental impacts. The cultural sector's contribution to the economy and poverty alleviation is especially important. Cultural heritage, cultural and creative industries, sustainable cultural tourism, and cultural infrastructure can all be used as strategic revenue generation tools, particularly in destinations with rich cultural heritage, but also in developing / under-developed territories that could benefit from new economic specialisations.

Monitoring the Contribution of Culture and Tourism to the Achievement of the Sustainable Development Objectives of the 2030 Agenda

Tourism, Culture, and the Sustainable Development Goals

Tourism

The United Nations International Year of Sustainable Tourism for Development was declared in 2017 (IY2017) as a culmination of interest in sustainable tourism. This was especially timely given the growing momentum toward sustainable development in the aftermath of the adoption of the United Nations 2030 Agenda for Sustainable Development and its associated Sustainable Development Goals (SDGs).

IY2017 aimed to foster a change in policies, business practices, and consumer behaviour for a more sustainable tourism sector in the context of the United Nations 2030 Agenda and the SDGs. It investigated and emphasized tourism's role in five key areas:

- i. Inclusive and sustainable economic growth
- ii. Social inclusiveness, employment, and poverty reduction
- iii. Resource efficiency, environmental protection, and climate change
- iv. Cultural values, diversity, and heritage
- v. Mutual understanding, peace, and security

When sustainable development becomes a shared responsibility and moves to the centre of decision-making within the tourism sector, tourism's role in achieving the 17 Sustainable Development Goals (SDGs) can be significantly strengthened.

In Voluntary National Reviews (VNRs) on the SDGs, tourism is most frequently mentioned in relation to SDGs 8, 12, and 17. According to the analysis of the 64 VNRs and the Mainstreaming, Acceleration and Policy Support (MAPS) country reports, policymakers recognize tourism's contribution to the SDGs. Tourism is mentioned in 41 of the 64 VNRs, most frequently in relation to SDGs 8, 12, and 17, respectively, on 'Decent Work and Economic Growth,' 'Responsible Consumption and Production,' and 'Partnerships for the Goals.' According to the MAPS reports, developing countries frequently see sustainable tourism as an SDG accelerator due to its direct and multiplicative effect on other sectors and industries (UNWTO, 2017).

Some of the reports also highlight the challenges and threats to tourism. Unsustainable consumption and production, as well as poor natural resource and waste management, have a significant impact on SDGs 11, 12, and 14 on 'Sustainable Cities and Communities,' 'Responsible Production and Consumption,' and 'Life Below Water'.

Countries lack frameworks for capturing, aggregating, and reporting on tourism's full economic, social, and environmental impacts. To play a more significant role in achieving the SDGs, authorities and businesses must be able to measure their progress, benchmark, and incrementally improve their performance. To inform evidence-based decision-making and policies at the country level, the UNWTO's Towards a Statistical Framework for Measuring Sustainable Tourism (MST) Initiative will be a major milestone in this process, but statistical capacity-building and knowledge-sharing will also be required.

Culture

As the UN specialized agency with a global mandate on culture, UNESCO is working to harness the power of culture to achieve the United Nations 2030 Agenda for Sustainable Development. UNESCO advances the 17 SDGs through its six cultural conventions by driving long-term impact through normative action. Culture adds the transformative dimension required to ensure the sustainability of development processes. At the national level, the integration of culture into development processes, strategies, and policies is already well underway across the broad public policy spectrum, from poverty reduction through jobs, skills, and employment in the cultural sector, to strengthening quality education for all and social justice, or to providing context-relevant responses to foster environmental sustainability.

Culture is an end in itself, but it also contributes directly to many of the SDGs, including safe and sustainable cities, decent work and economic growth, reduced inequalities, the environment, promoting gender equality, and peaceful and inclusive societies. In its Report on EU action for Sustainability (2017)[1], the European Parliament emphasizes that culture is a transversal and cross-cutting issue and constitutes an essential resource for development, that using cultural resources is a fundamental way to achieve other future development goals, and that the incorporation of cultural factors in sustainable development policies and strategies should be done in full compliance with other international commitments. Furthermore, it emphasizes the importance of incorporating

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[1] European Parliament. REPORT on EU action for sustainability. 2017. https://www.europarl.europa.eu/doceo/document/A-8-2017-0239_EN.html

culture into EU action for Sustainability, citing its role in "economic development, job creation, promoting democracy, social justice, and solidarity, fostering cohesion, combating social exclusion, poverty, and generational and demographic disparities".

Alignment with PA3 Actions

The Danube Region has a rich cultural heritage, with many historic sites, monuments, and locations worth visiting. Since its inception, the Danube Transnational Programme has advocated for the preservation and rehabilitation of these valuable assets as a foundation for sustainable development.

The tourism sector in the Danube Region is a growth driver that contributes significantly, both directly and indirectly, to economic growth, job creation and retention, and SME activities. Despite its resilience, the sector faces common EU-wide challenges, such as the need to ensure sustainability, increase workforce skills, and digitally transform its enterprises.

The sector's combination of opportunities and challenges has resulted in tens of tourism-related projects. Many of the projects carried out under Priority Area 3 "Culture, tourism, and people-to-people contacts" took advantage of collaboration opportunities, resulting in new promotion strategies and sustainable tourism products. They aided in attracting tourists while also providing economic benefits to the community, all while moving toward a more sustainable approach to natural and cultural heritage preservation and management. Nonetheless, national and regional governments continue to have a sizable appetite for tourism-related projects. The appetite is driven by tourism and culture potential to support green and digital transition, to create spill-over effects into other sectors.

The updated Action Plan for Priority Area 3 emphasizes the importance of long-term development in culture and tourism. To some extent, all actions have the potential to contribute to the Sustainable Development Goals. The Action Plan is organized around three main objectives:

I.   **Developing sustainable tourism** – with clear focus on sustainable forms of tourism, preservation, conservation and socialization of cultural heritage and natural values
II. **Science, research and new technologies in culture, tourism, and people to people contacts** – which emphasizes the importance of a unified monitoring system for sustainable tourism and cultural/natural heritage, as well as the value of exchange, networking, and people-to-people contacts
III. **Valorizing, promoting, and protecting the cultural heritage** – which stresses the importance of tourism and culture for sustainable jobs in the region

SOCIAL DEVELOPMENT GOALS	ROLE OF TOURISM	ROLE OF CULTURE	PA3 ACTIONS	POTENTIAL INDICATORS (TARGETS)
SDG 1 – End poverty in all its forms everywhere	Tourism provides income through job creation at local levels. It can be linked to national poverty reduction strategies and entrepreneurship encouragement. The diversity of skills required and local recruitment can empower less favoured groups, particularly youth and women.	Cultural expressions, services, goods, and heritage sites can contribute to inclusive and sustainable economic development.	Enhance the visibility of rural/local, less visited areas, cultural tangible, and intangible heritage sites (A6)	**Proportion of population living below the national poverty line, by sex and age (0%) Employment in tourism and culture related industries**
SDG 2 – End hunger, achieve food security and nutrition, promote sustainable agriculture	Tourism can spur sustainable agricultural by promoting the production and supplies to hotels, and sales of local products to tourists. Agro tourism can also generate additional income while enhancing the value of the tourism experience.	Traditional knowledge related to the preservation of existing genetic resources, including the genetic diversity of seeds, should be recognized and maintained, and the agricultural practices can be incorporated in specific cultural activities and events.	Promote investments in ecotourism (A1)	**% of tourism businesses supporting local agriculture and aquaculture % of employees in tourism establishments with access to healthy in house food services (canteens, cafeterias)**
SDG 3 – Ensure healthy lives and promote well-being for all at all ages	Tax income generated from tourism can be reinvested in health care and services, improving maternal health, reduce child mortality and preventing diseases. Visitors fees collected in protected areas can as well contribute to health services.	Health policies and programmes need to be culturally relevant, taking into account local customs, as well as integrating traditional health systems and practitioners where appropriate. Participation in cultural life can contribute to improved health and well-being, as recognised by an increasing number of studies and examples.	Promote the development of wellness and different forms of health tourism (A4)	**% of local tourism / culture sector employees receiving free/subsidised health check-ups and clinics for staff and family members Number of health and wellness tourism establishments**

SDG 4 – Ensure inclusive and equitable quality education and promote lifelong learning for all *By 2030, substantially increase the number of youth and adults who have relevant skills*	Tourism has the potential to promote inclusiveness. A skilful workforce is crucial for tourism to prosper. The tourism sector provides opportunities for direct and indirect jobs for youth, women, and those with special needs, who could benefit from educational and training tools.	Educational programmes at all levels need to integrate contents related to cultural diversity, arts education, languages, and the role of cultural aspects in sustainable development. A cultural approach, including recognition of local languages and locally-relevant abilities, and the involvement of cultural stakeholders, needs to prevail in the design of curricula at all levels – this is in line with human rights, and can contribute to achieving major educational objectives, including students' motivation and community connections.	Invest in knowledge management and human resource development, facilitate mobility schemes for people active in or studying the areas of tourism or culture (A3)	**Number of culture and tourism-related educational programs Number of educated persons in culture and tourism-related educational programs**
SDG 5 – Achieve gender equality and empower all women and girls *Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life*	Tourism can empower women, particularly through the provision of direct jobs and income-generation from MSMEs in tourism and hospitality related enterprises. Tourism can be a tool for women to become fully engaged and lead in every aspect of society.	Gender equality should also be achieved in cultural life: opportunities for women and girls to take active part in cultural life and lead their own projects and organisations in this area need to be broadened. Further visibility and recognition needs to be given to cultural practices carried out predominantly by women and girls. Narratives that address gender discrimination or which show the important role of women and girls in cultural life are needed.	All actions could have a gender dimension	**Women/men as a % of all tourism and culture employment % of tourism / culture businesses registered under women/ men**

SDG 6 - Ensure availability and sustainable management of water and sanitation for all	Tourism investment requirements for providing utilities can play a critical role in achieving water access and security, as well as hygiene and sanitation for all. The efficient use of water in tourism, pollution control and technology efficiency can be key to safeguarding our most precious resource.	Some elements in traditional knowledge can provide lessons towards fostering an appropriate, sustainable use of water-related ecosystems	Stimulating development of coherent destination management (A1) Monitoring sustainable tourism impact, based on competent research (A4)	**Water use: (total volume consumed per tourist per day) Water saving (% reduced, recaptured or recycled)**
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all	As a sector, which is energy intensive, tourism can accelerate the shift towards increased renewable energy shares in the global energy mix. By promoting investments in clean energy sources, tourism can help to reduce greenhouse gases, mitigate climate change and contribute to fair access of energy for all.	Cultural factors, often inadvertently, underpin energy production and consumption patterns. Creative actors can be involved in the design of educational and awareness-raising activities on energy production and consumption.	Monitoring sustainable tourism impact, based on competent research (A4)	**Consumption of energy from all sources per capita (overall, and by tourist sector – per person day) % of energy consumption from renewable resources (at destinations, establishments)**
SDG 8 – Promote sustained, inclusive and sustainable economic growth, employment and decent work for all *By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes*	Tourism, as services trade, is one of the top four export earners globally, currently providing one in ten jobs worldwide. Decent work opportunities in tourism, particularly for youth and women, and policies that favour better diversification through tourism value chains can enhance tourism positive socio-economic impacts.	The cultural and creative sectors have the potential to be areas for inclusive, sustainable and fair employment, insofar as the appropriate labour conditions, in accordance with international human rights, are guaranteed. Cultural aspects can be integrated in tourism strategies, while ensuring that this does not imply decontextualization of cultural identities, activities and	All actions are oriented towards the development of sustainable tourism and culture	**Number of jobs in tourism and culture industries as a proportion of total jobs and growth rate of jobs, by sex Tourism / culture direct GDP as a proportion of total GDP and in growth rate.**

local culture and products			assets and that relevant benefits are reinvested in cultural activities.		
SDG 9 – Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Tourism development relies on good public and private infrastructure. The sector can influence public policy for infrastructure upgrade and retrofit, making them more sustainable, innovative and resource-efficient and moving towards low carbon growth, thus attracting tourists and other sources of foreign investment.	Cultural infrastructures, providing affordable and equitable access to all and opportunities to participate in cultural life, are part of the quality, reliable, sustainable and resilient infrastructure that should be available to everyone. Artists and creative professionals can be involved in processes aimed at research, development and innovation in a wide range of industrial areas.	Promote investments in green and blue forms of tourism (A1)	**Tourism travel by transport modes (%)** **Length of Eurovelo network** **Internet use related to travel and participation in tourism** **% of enterprises in the tourist accommodation sector with online presence**
SDG 10 – Reduce inequality within and among countries	Tourism can be a powerful tool for reducing inequalities if it engages local populations and all key stakeholders in its development. Tourism can contribute to urban renewal and rural development by giving people the opportunity to prosper in their place of origin. Tourism is an effective means for economic integration and diversification.	Cultural participation can contribute to empowering and promoting the inclusion of all people, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status. Artists and creative professionals can be involved in the design and presentation of narratives which give voice to developing countries. All approaches to migration should include a cultural dimension and intercultural dialogue.	Build on cultural diversity as strength of the Danube Region (A6) Strengthening cooperation and contacts between people of different origins, encouraging creativity and entrepreneurship (A6)	**Tourism regional concentration per area** **Tourist intensity** **Net tourism / culture exports**

SDG 11 – Make cities and human settlements inclusive, safe, resilient, and sustainable *Target 11.4 highlights the need to strengthen efforts to protect and safeguard the world's cultural and natural heritage*	Tourism can advance urban infrastructure and accessibility, promote regeneration, and preserve cultural and natural heritage, assets on which tourism depends. Investment in green infrastructure (more efficient transport, reduced air pollution) should result in smarter and greener cities for, not only residents, but also tourists.	Many relevant sites and elements of tangible and intangible cultural heritage are found in cities and play a role in sustainable local development – indeed, cultural aspects are fundamental to foster local sustainable development. Green and public spaces can allow for the development of cultural activities and need to be accessible to everyone.	Enhance cooperation of science and research with the cultural heritage natural heritage and tourism sector (A5) Digitalize the cultural resources for the preservation of the cultural memory of the Danube Region (A4)	**Number of UNESCO World Heritage Sites Number of digitally preserved cultural assets Government spending on green infrastructure**
SDG 12 – Ensure sustainable consumption and production patterns	The tourism sector needs to adopt sustainable consumption and production (SCP) modes, accelerating the shift towards sustainability. Tools to monitor sustainable development impacts for tourism including for energy, water, waste, biodiversity, and job creation will result in enhanced economic, social and environmental outcomes.	Local, traditional products that are suited to sustainable consumption and production need to be recognized and appreciated.	Monitoring sustainable tourism impact, based on competent research (A4)	**Existence of tools to monitor sustainable development impacts (Yes/No)**
SDG 13 – Take urgent action to combat climate change and its impacts	Tourism contributes to and is affected by climate change. Tourism stakeholders should play a leading role in the global response to climate change. By reducing its carbon footprint in the transport and accommodation sector tourism can benefit from low carbon growth and help tackle one of the most pressing challenges of our time.	Links exist between cultural activities, traditional knowledge, and environmentally sustainable practices, which should be explored and fostered. Creative professionals can be involved in awareness raising activities on climate change.	Promote investments in green and blue forms of tourism incl. all forms of ecotourism, cultural tourism, cycling, hiking, and activity tourism (A1)	**CO_2 emissions from tourism and cultural activities Funding in green and blue forms of tourism (in EUR)**

SDG 14 – Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Coastal and maritime tourism rely on healthy marine ecosystems. Tourism development must be a part of Integrated Coastal Zone Management in order to help conserve and preserve fragile marine ecosystems and serve as a vehicle to promote a blue economy, contributing to the sustainable use of marine resources.	Some cultural traditions relate to the sustainable preservation of marine and coastal ecosystems and need to be identified and reinforced.	Enhance cooperation of science and research with the cultural heritage (including underwater heritage) (A5)	**Existence of and Integrated Management of Coastal Zones**
SDG 15 – Protect, restore and promote sustainable use of terrestrial ecosystems and halt biodiversity loss	Rich biodiversity and natural heritage are often the main reasons why tourists visit a destination. Tourism can play a major role if sustainably managed in fragile zones, not only in conserving and preserving biodiversity, but also in generating revenue as an alternative livelihood to local communities.	Cultural factors related to the preservation of terrestrial ecosystems, including relevant local and traditional knowledge, need to be integrated in the design, implementation and evaluation of policies and programmes in certain areas.	Develop effective destination management structures/systems (A1) Monitoring sustainable tourism impact, based on competent research (A4)	**Percentage of region's territory included in Natura 2000 network**
SDG 16 – Promote peaceful and inclusive societies, provide access to justice for all and build inclusive institutions	As tourism revolves around billions of encounters between people of diverse cultural backgrounds, the sector can foster multicultural and inter-faith tolerance and understanding, laying the foundation for more peaceful societies. Tourism, which benefits and engages local communities, can also consolidate peace in post-conflict societies.	Citizens should be able to participate in the design, implementation and evaluation of cultural policies and programmes. Cultural facilities, including libraries and knowledge centres, foster access to information. Strategies aimed at the alleviation of violence and the promotion of peace should integrate a cultural component.	Develop and promote intercultural and multicultural activities and exchanges among the Danube basin (A5) Strengthening cooperation and contacts between people of different origins, encouraging creativity and entrepreneurship and stimulating cultural innovation and ethnic	**Number of cross-border projects / partnerships related to tourism and culture**

			as well as economic development	
SDG 17 – Strengthen the means of implementation and revitalize the global partnership for sustainable development	Due to its cross-sectoral nature, tourism can strengthen private/ public partnerships and engage multiple stakeholders – international, national, regional, and local – to work together to achieve the SDGs and other common goals. Public policy and innovative financing are at the core for achieving the 2030 Agenda.	International, national, and local strategies for sustainable development, including those that aim to implement the 2030 Agenda, need to integrate a cultural dimension.	Stimulate cross-sectoral partnerships/ projects/ initiatives (A3)	**Number of tourism and culture related cross-border partnerships and projects**

Methodology

For the measurement of sustainability and sustainable development, there is no widely accepted concept that can be used to underpin a measurement framework. There is general agreement that measurement should encompass three primary dimensions – economic, environment and social – but what precisely determines whether a particular activity or location is sustainable is not agreed. In part, the extent of sustainability will be dependent on the time horizons being considered, the scale of analysis (e.g. local communities or countries), the perspective of the analysis (local business, government official, visitor) and the set of values that are applied to understand the relative importance of economic, environmental and social dimensions.

The recommended methodology for indicators development is a phased approach that results in operational indicators. It starts with the long-term vision of a region, selection of priority issues, review of existing literature, identification of desired indicators, inventory of data sources and selection procedures (World Tourism Organization, 2004).

Review of Indicators Proposed by Relevant International Organizations

European Tourism Indicator System (ETIS) (European Commission, 2016)

It has been acknowledged that defining a set of indicators that are internationally comparable to enable assessments of sustainability and the improvements that are needed in tourist destinations will allow tourism managers to monitor the situation and, eventually, identify the actions that are required to improve the level of sustainability across the different areas of tourism. In 2016, the European Commission developed a "European Tourism Indicators System" (ETIS), aiming to provide all the specific tools to monitor the impact of tourism at local level. The ETIS monitoring system helps tourist destinations to measure their performances with respect to sustainability by using a common and comparable approach. The ETIS model is composed of four pillars and 43 core indicators, together with an indicative set of supplementary indicators. Its monitoring results are based on self-assessment, observations, data collection, and analysis by the destinations themselves. The lack of data needed to implement the system, together with the lack of interest among destination stakeholders in adopting the ETIS as a long-term investment (to cover, for example, the costs of conducting surveys on visitors, residents, and tourism businesses), presented problems for tourism destinations.

Statistical Framework for Measuring the Sustainability of Tourism (UNWTO, draft)

The Statistical Framework for Measuring the Sustainability of Tourism (SF-MST) serves as an organizational framework for combining statistics on the financial, environmental, and social aspects of sustainable travel. The SF-MST directly addresses the growing need for information that takes into account the various facets of sustainable development and that regards various analytical scales, from local to global levels. This framework should also address the need for indicators to monitor the progress toward the Sustainable Development Goals (SDGs), which are a component of the 2030 Development Agenda.

Indicators of Sustainable Development for Tourism Destinations (World Tourism Organization, 2004)

This Guidebook has been produced to help tourism managers obtain and use the best information possible in support of better decision-making regarding sustainable development for tourism. Indicators are proposed as crucial building blocks for sustainable tourism and as tools responding to the issues most important to tourism destinations' managers. While the primary focus of the Guidebook is at the destination level, some attention is also given to indicators that focus on issues at a broader scale, either ot regional or national level, particularly as they may affect destinations. Reference is also made to the site or enterprise-specific issues, also tending to affect the sustainability of both tourism operators and respective destinations. Sustainability principles refer to the environmental, economic and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee a destination's long-term sustainability

Culture 2030 Indicators framework (UNESCO, 2019)

The development of the Culture 2030 Indicators framework began in early 2017, with the review of existing methodologies to measure culture in relation to the overall development in general. The review also included the methodologies developed and implemented by UNESCO and other partners globally in order to enhance existing instruments and data, including the Framework for Cultural Statistics (FCS), the Culture for Development Indicators Suite (CDIS), the Culture Conventions periodic reporting mechanisms and other monitoring mechanisms and methodologies in the specific context of the 2030 Agenda.

Building on the outcomes of this review exercise, a framework of 22 indicators grouped into four thematic dimensions was developed: (i) Environment & Resilience, (ii) Prosperity & Livelihoods, (iii) Knowledge & Skills and (iv) Inclusion & Participation. The framework also responds to the "5 Ps" of the 2030 Agenda (People, Planet, Prosperity, Peace, and Partnerships) (UNESCO, 2019).

Development of the Framework of Indicators

There are numerous sets of sustainability indicators for countries, sub-national regions, destinations, and industries. While indicator selection is participatory and will typically include the three key dimensions of sustainability - economic, environmental, and social - indicator sets do not describe the interlinkages between these dimensions. Indicator sets can raise the profile of sustainable development and help set expectations and policy targets for individual aspects of sustainable development, but they do not provide a specific statement about overall sustainability. As a result, assessing sustainability in any given context requires the user to developg their own conceptual model of how data from each dimension might be connected. Moreover, indicator selection requires information on current and potential data sources. Two distinct but related basic approaches are in widespread use:

- A data-driven approach which asks the question - what can we do with the data we have, or for what issues do we have data?
- An issue (and /or policy-driven) approach, which asks the question - what issue or policy questions are most important, and can we obtain the data to address them?

This report addresses both questions in a form of negotiation between what information is needed and what can be created or obtained now, and how information sources can be improved in the future. Searching for data focused on what is needed to support the desired indicators derived

from literature and at the same time, navigating through the data sources revealed existence of indicators which are not mentioned in the literature (e.g., the ESPON tourism sustainability indicator).

This report was intended to generate an initial list of potential data sources that could be used to support indicators. Due to time constraints, only sources with already aggregated data were considered (EUROSTAT and ESPON), rather than analysing national level statistics. Both EUROSTAT and ESPON have an extensive list of indicators related to culture, tourism, and sustainability in general, but only a few meet a minimum set of criteria.

The criteria used are:

- Relevance – the ideal indicator should provide useful information which will make a difference to a decision affecting the sustainability of tourism or culture. Also, there are many issues related to sustainable tourism and culture (energy management, waste, communication and other infrastructure) which require cooperation between different sectors for resolution
- Comparability – over time and across regions. The indicator should be used reliably to show changes over time or relative to other regions. This second criteria significantly narrowed the list of potential indicators since most of the data is at national level.
- Clarity – understandability for users

The resulting list of indicators is presented in the table below.

TABLE 2. LIST OF POTENTIAL INDICATORS FOR MEASURING SUSTAINABILITY IN TOURISM AND CULTURE

INDICATOR		DESCRIPTION	SOURCE
TOURISM			
Economic	Local units	Indicators concerning business state of the art indicate the sector's economic vitality and potential to create jobs and alleviate poverty	EUROSTAT
	Wages and salaries		EUROSTAT
	Persons employed		EUROSTAT
Environmental	Percentage of region's territory included in Natura 2000	Landscape and biodiversity protection	
	Existence and functioning of a representative coordinating mechanism for MSP/ICZM (YES/NO)		
	Water consumption attributed to tourism	Such indicators help to measure sustainable consumption and production (SCP) patterns in the tourism sector	
	The volume of waste generated		
	CO_2 emissions per inhabitant		
Social	Tourist intensity	Ratio of nights spent at tourist accommodation establishments relative to the total permanent resident population of the area	EUROSTAT
Aggregated	Tourism sustainability	The synthetic indicator is composed of several sub-	ESPON

		indicators which are individually picking up characteristics of the overall territorial dimensions in the framework of tourism and sustainability. The indicator takes into account seasonality, normalized area of NATURA 2000 habitats, and the annual value of overnight stays. Thus, the indicator captures tourism, as well as its volatility and the general state of the environment	
CULTURE			
Economic	Local units	Indicators concerning business state of the art indicate the sector's economic vitality and potential to satisfy needs of both residents and visitors	EUROSTAT
	Wages and salaries		EUROSTAT
	Persons employed		EUROSTAT
Environment and resilience	UNESCO World Heritage Sites	Many relevant sites and elements of tangible and intangible cultural heritage play a role in sustainable local development	UNESCO
CROSS SECTORAL			
Territorial Quality of Life	Good Life Enablers Index	The personal sphere includes enablers of good shelter, education and health, measured by indicators of availability, accessibility and affordability of housing, basic utilities, education and health services in the territory. The socio-economic sphere includes enablers of good mobility, digital connectivity, work and consumption choices, social and cultural life in the territory. The ecological sphere includes enablers of good life in green environments (availability and maintenance of green infrastructure and protected areas).	ESPON
	Life Maintenance Index		ESPON
	Life Flourishing Index		ESPON

Indicators are particularly important in providing clear signals concerning the effects of current policy decisions and choices – for example through monitoring the growth in visitor numbers, the trends in visitor expenditure, the patterns of water use and the changes in tourism employment.

Regular and reliable information on these types of indicators is best provided by a framework since it ensures consistency in definition of indicators over time (including in the choice of measurement units), the coherence between different indicators and the ability to compare indicators among destinations, regions and countries. For example, if each destination defined tourism industries and employment in a different way, then there would be no means to be confident that trends monitored in one region could be sensibly compared to trends in other regions.

Description of Indicators and Regions' Performance

Tourism

In the debate over sustainable tourism, the economic dimension is often given relatively scant attention compared to the environmental issues. Tourism is an economic phenomenon because:

- It is a major industry and foreign currency earner
- It is the basis of the growth of many transnational corporations
- It accounts for a significant proportion of the annual disposable income

Tourism initiatives are expected to contribute to local and regional economic development via a range of activities. This is achieved not only through an overall increase in tourism revenue and new employment opportunities, but also through the specific involvement of businesses in the local accommodation, food, and leisure sectors, thus creating additional work and income opportunities.

EUROSTAT data helps us to account for the evolution in the number of enterprises in tourism in each region, the employment they generate and the salaries in the sector.

FIGURE 1. LOCAL UNITS IN TOURISM RELATED ACTIVITIES, 2014-2019

Data source: EUROSTAT Database

CIVITTA

Legend

Limits
- Study area boundary
- NUTS 2
- Country boundary

Number of the local units, 2019
- No data
- 2.075 - 7.933
- 7.933 - 13.791
- 13.791 - 19.649
- 19.649 - 25.507

% Change of the local units number, 2014-2019
- -32% - -11%
- -11% - 11%
- 11% - 32%
- 32% - 53%
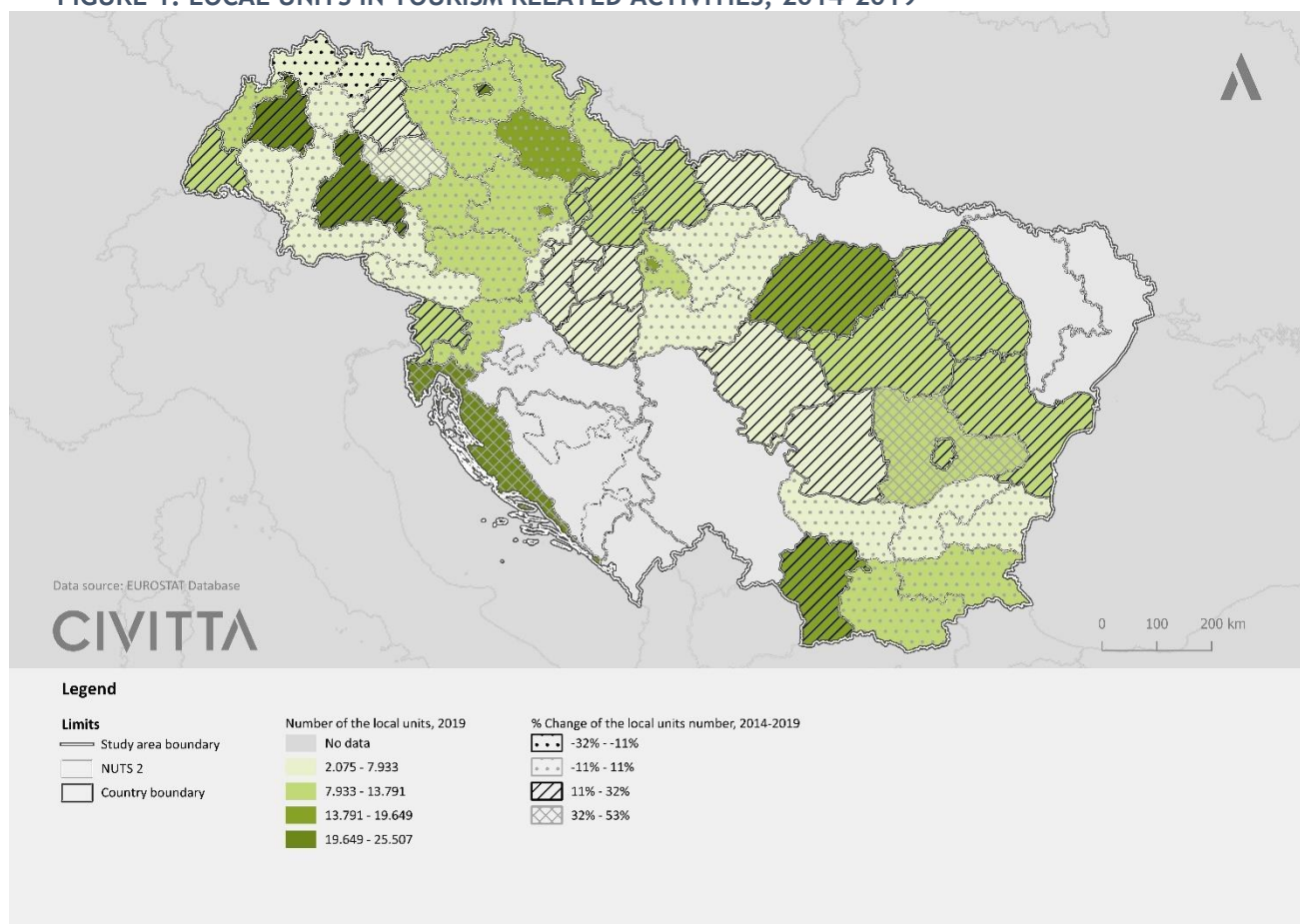
FIGURE 2. PERSONS EMPLOYMENT IN TOURISM RELATED ACTIVITIES, 2014-2019

Data source: EUROSTAT Database

CIVITTA

Legend

Limits
- Study area boundary
- NUTS 2
- Country boundary

Number of the employment, 2019
- No data
- 240 - 4.533
- 4.533 - 8.825
- 8.825 - 13.118
- 13.118 - 17.410
- 17.410 - 21.703

% Change of the employment number, 2014-2019
- -50% - 0%
- 0% - 50%
- 50% - 1525

0   100   200 km
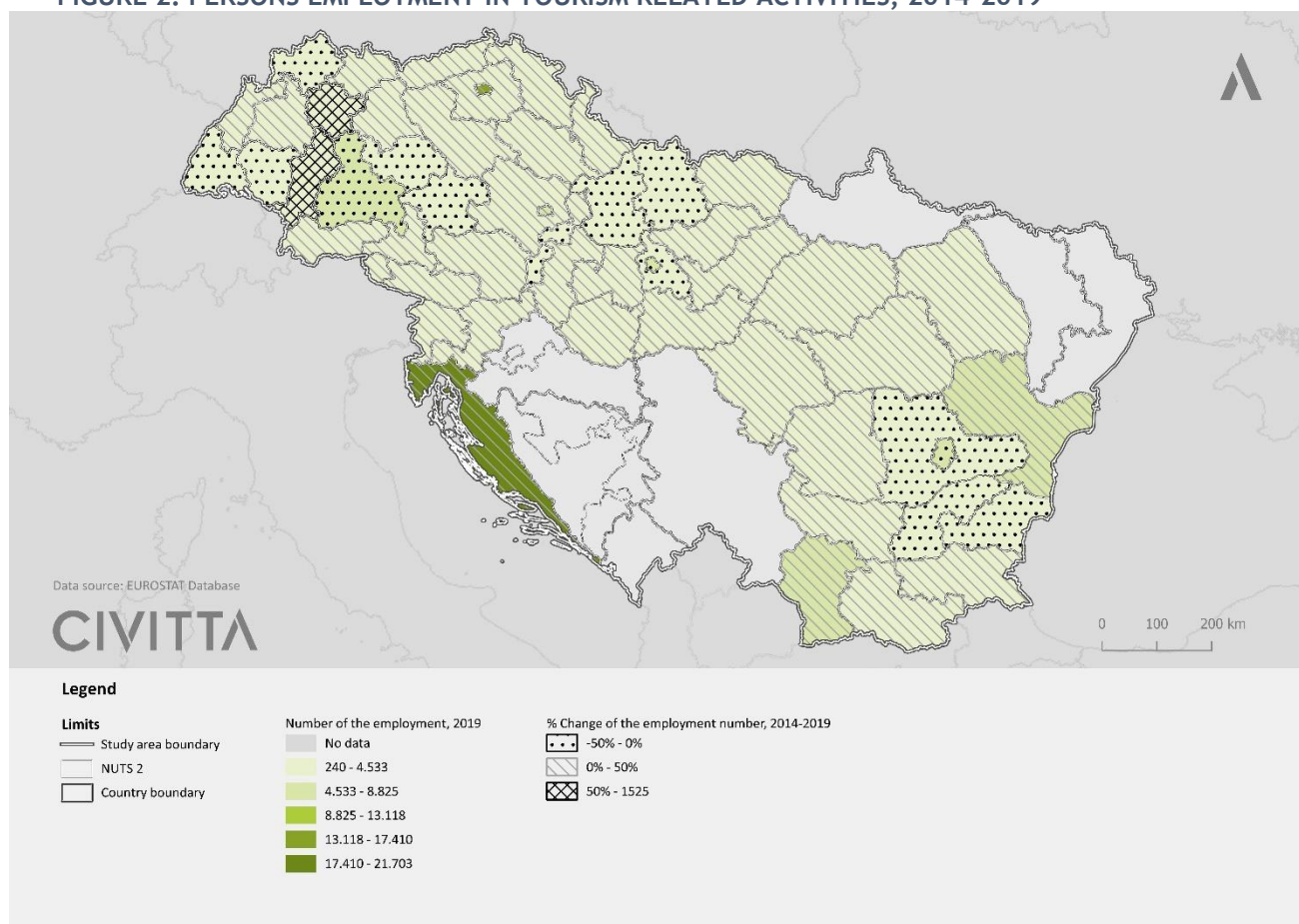
Another pillar of sustainability is the environmental one. If we live within the means of natural resources, the environment and nature will still nourish future generations. Clean air, water, and land are key. Promoting environmental sustainability comes from infrastructure construction or adjustments which increase the energy efficiency of businesses and facilities, promoting resource efficiency and a shift towards low carbon economy.

The indicators under the environmental section in the Database are estimates which help us to measure sustainable consumption and production (SCP) patterns in the tourism sector (water consumption, waste generated and CO_2 emissions).
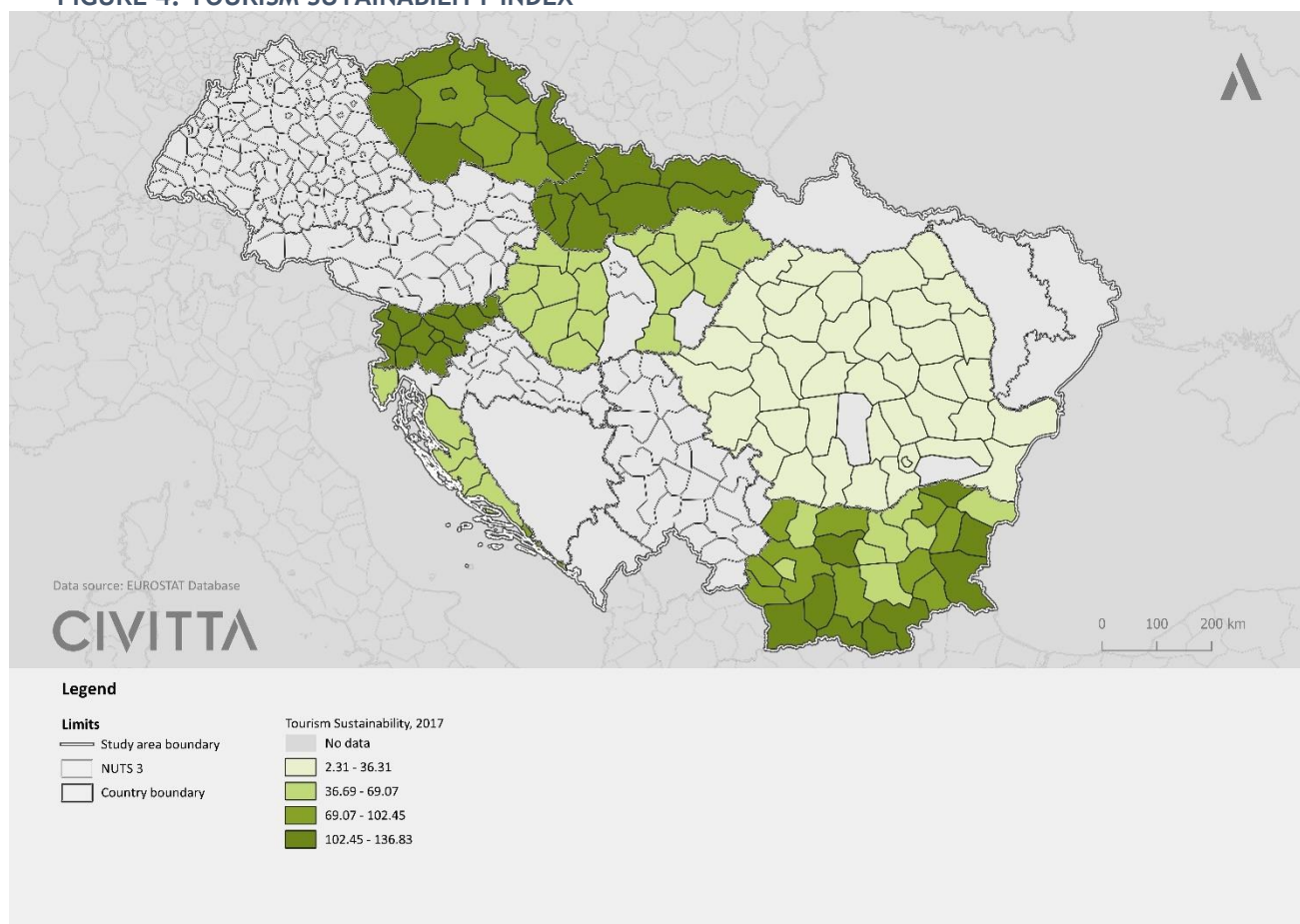
Understanding the social impacts of tourism on communities is extremely important for government at all levels so that action can be taken to reduce the likelihood of a community backlash against tourists and tourism development. Given that the residents of many tourism destinations are a fundamental part of the tourism "product", resident attitudes and behavior have a sizable impact on the success or otherwise of a destination. Numerous destinations around the world have long suffered over tourism—although in its contemporary manifestation it is most commonly associated with city tourism and the emergence of local anti-tourism sentiment. The ratio between the number of tourists and the number of residents—tourism intensity gives a more accurate and detailed picture of over tourism in the Danube Region.

FIGURE 3. RATIO OF TOURISTS TO LOCALS, 2018
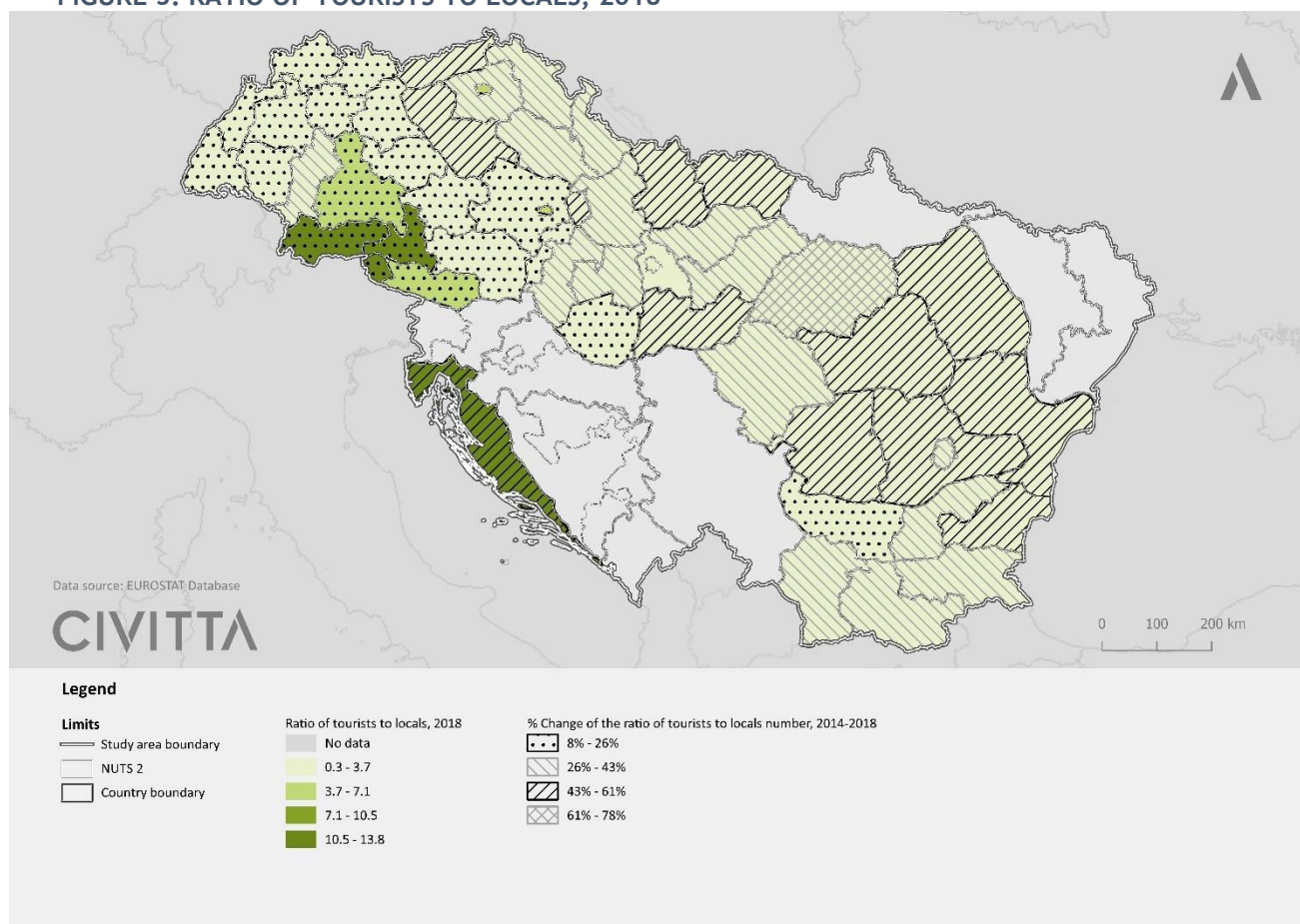
The synthetic composite indicator Tourism and Sustainability is benchmarked across ESPON space, as data availability allows. The composite indicator quantifies the developments in tourism and sustainability in a given NUTS-3 region. The synthetic indicator is composed of several sub-indicators which are individually picking up characteristics of the overall territorial dimensions in the framework of tourism and sustainability (the normalized approximation for seasonality of the individual region, normalized area of NATURA 2000 habitats in a given region and the annual value of overnight stays in a given region).

FIGURE 4. TOURISM SUTAINABILITY INDEX

Data source: EUROSTAT Database

CIVITTA

Legend

Limits
- ═══ Study area boundary
- ☐ NUTS 3
- ☐ Country boundary

Tourism Sustainability, 2017
- ☐ No data
- ☐ 2.31 - 36.31
- ☐ 36.69 - 69.07
- ☐ 69.07 - 102.45
- ☐ 102.45 - 136.83

Culture

Business indicators (number of active local units and employment) point to the sector's economic vitality and capacity to meet needs of both locals and tourists.

FIGURE 5. ACTIVE LOCAL UNITS IN CULTURE RELATED ACTIVITIES, 2014-2019

Data source: EUROSTAT Database

CIVITTA

Legend

Limits

▭	Study area boundary
▭	NUTS 2
▭	Country boundary

Number of cultural local units, 2019

	836 - 6.604
	6.604 - 12.373
	12.373 - 18.141
	18.141 - 23.909

% Change of the cultural local units, 2014-2019

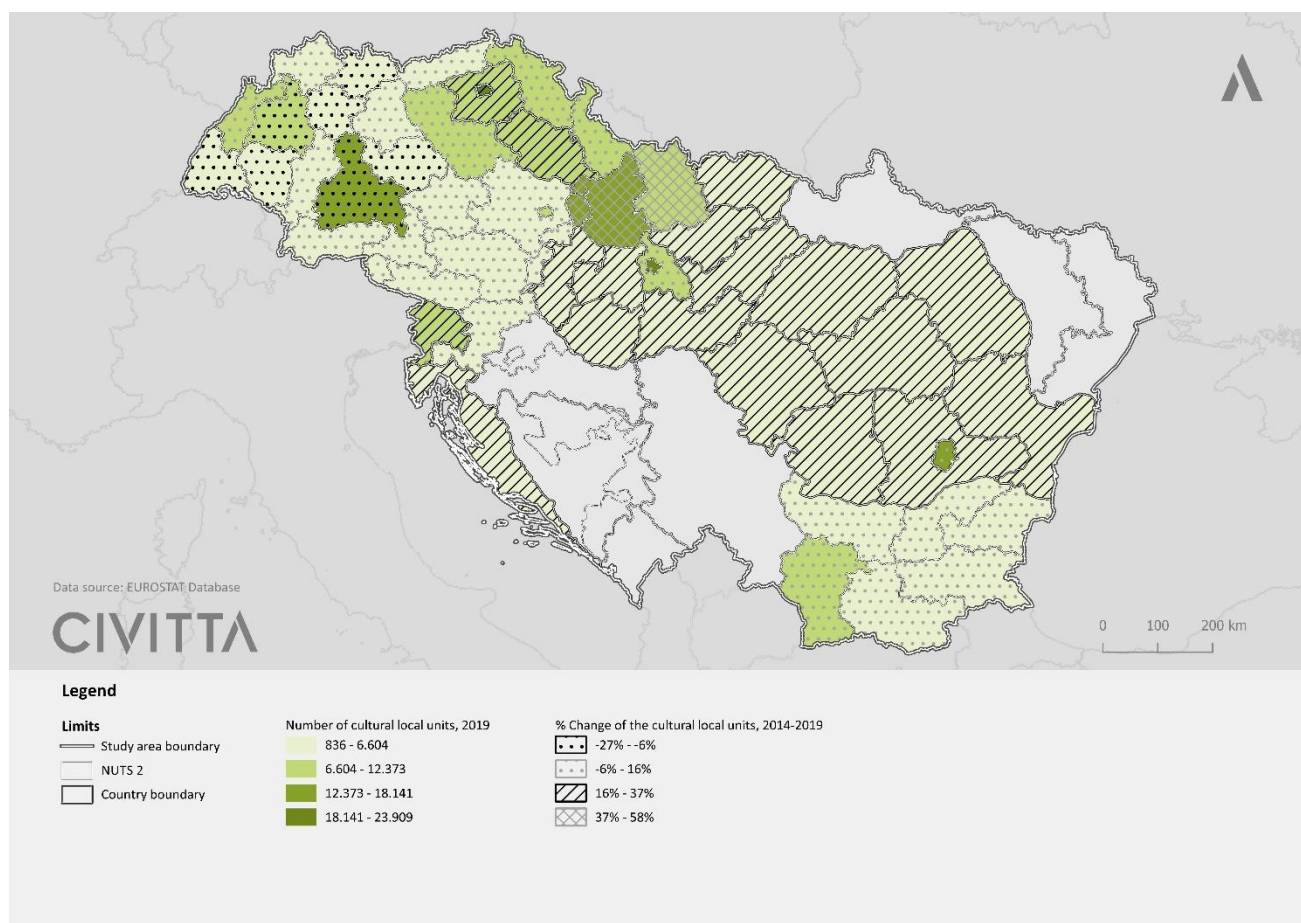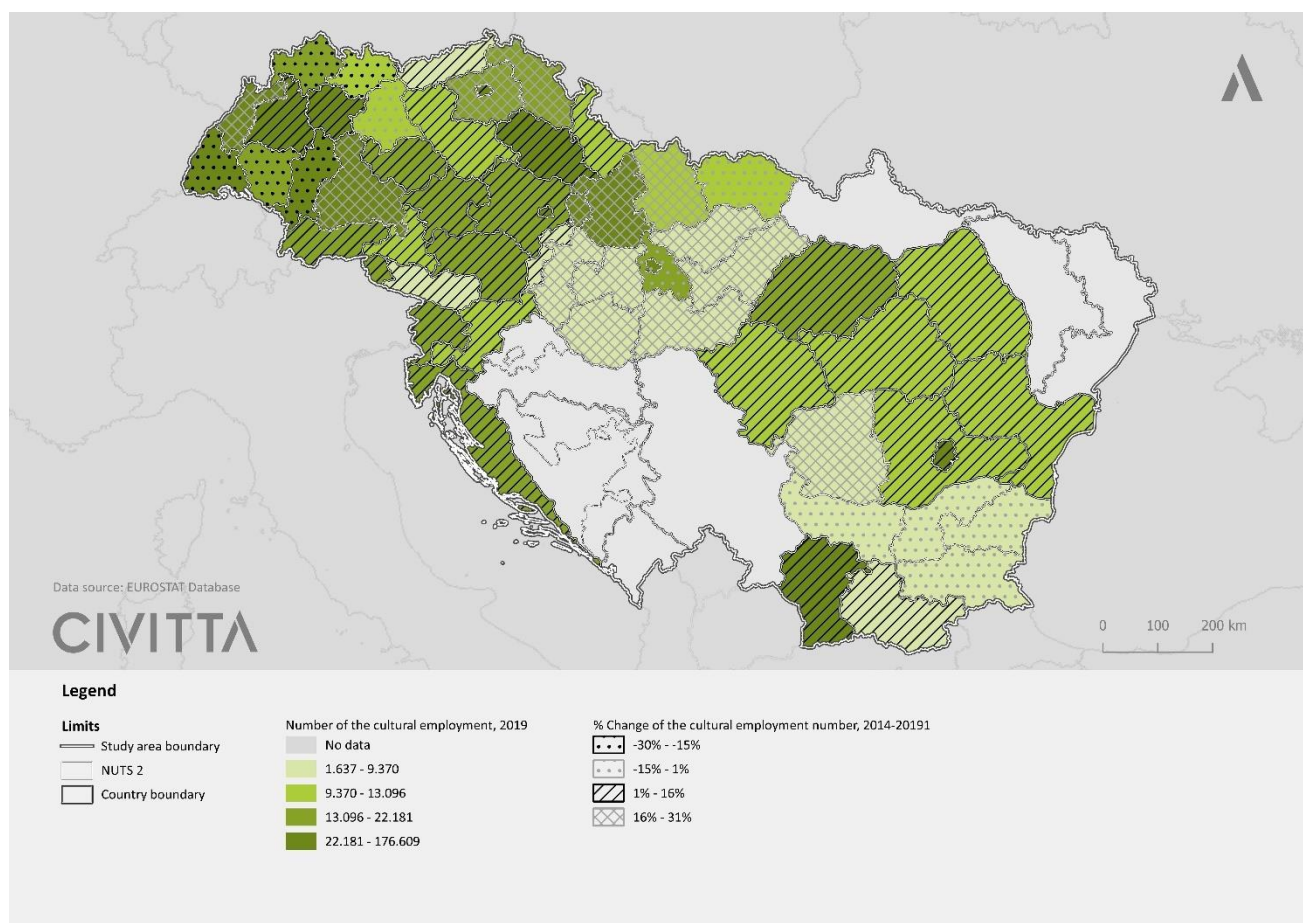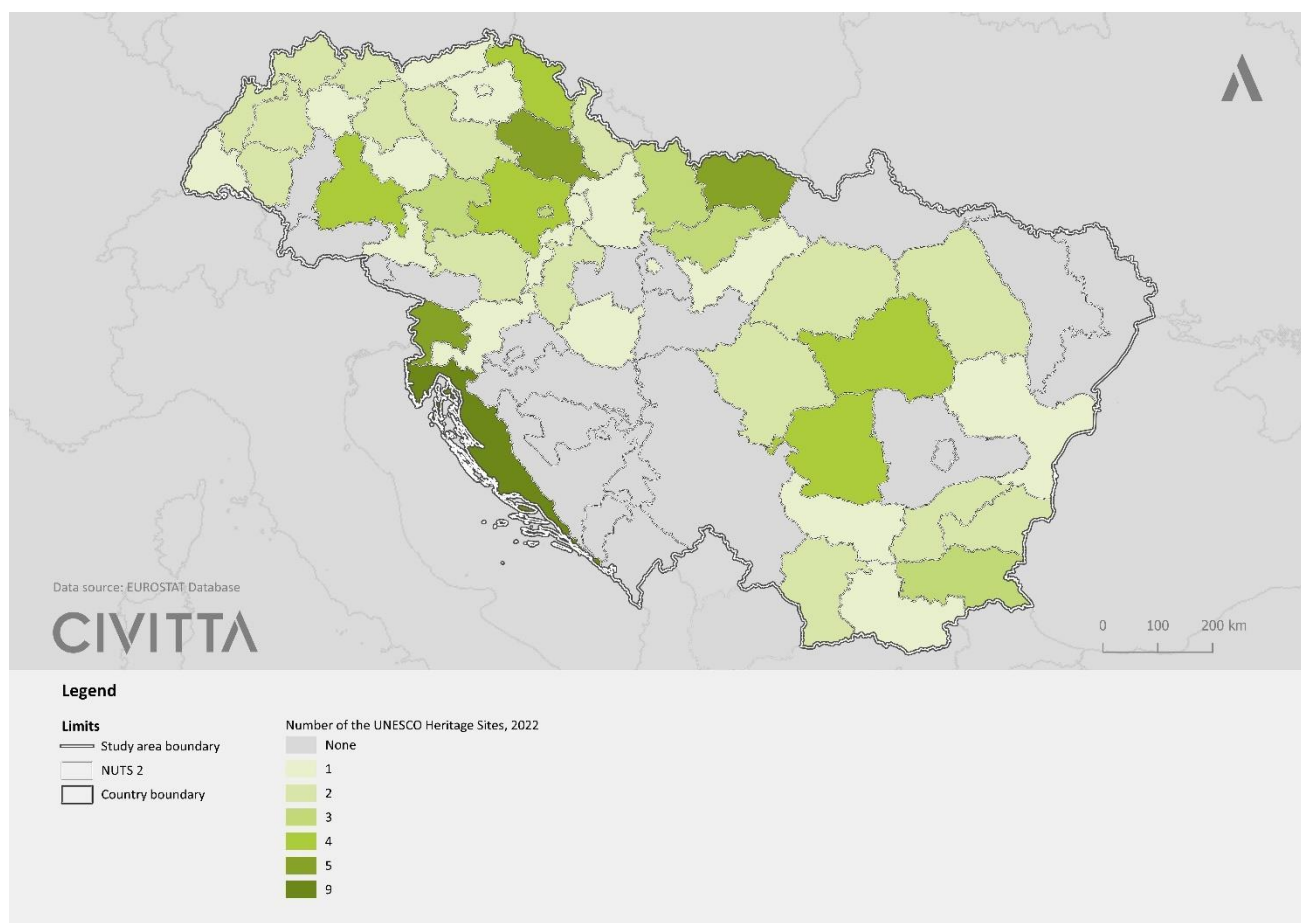|	
	-27% - -6%
	-6% - 16%
	16% - 37%
	37% - 58%

FIGURE 6. EMPLOYMENT IN CULTURE RELATED ACTIVITIES, 2014-2019

Besides the economic dimension, for the culture sector only the UNESCO world heritage could be assessed at regional level. The number of sites classified as World Heritage by UNESCO in each region represents a proxy for its cultural heritage (in a few cases, the same site is distributed along different regions and one site per region has been considered). Despite the existence of other important cultural elements (from tangible, like non-classified monuments or museums, to intangible, like local lifestyles, and including cultural events and festivals) extremely relevant for tourism attractiveness, it is not possible to have comparable quantitative information at the regional level for a regional analysis.

FIGURE 7. NUMBER OF UNESCO WORLD HERITAGE SITES, 2022

Legend

Limits

Study area boundary
NUTS 2
Country boundary

Number of the UNESCO Heritage Sites, 2022

None
1
2
3
4
5
9

Data source: EUROSTAT Database

CIVITTA

0   100   200 km

Territorial Quality of Life

The Territorial Quality of Life is measured by the following composite indicators:

1. Good Life Enablers Index
2. Life Maintenance Index
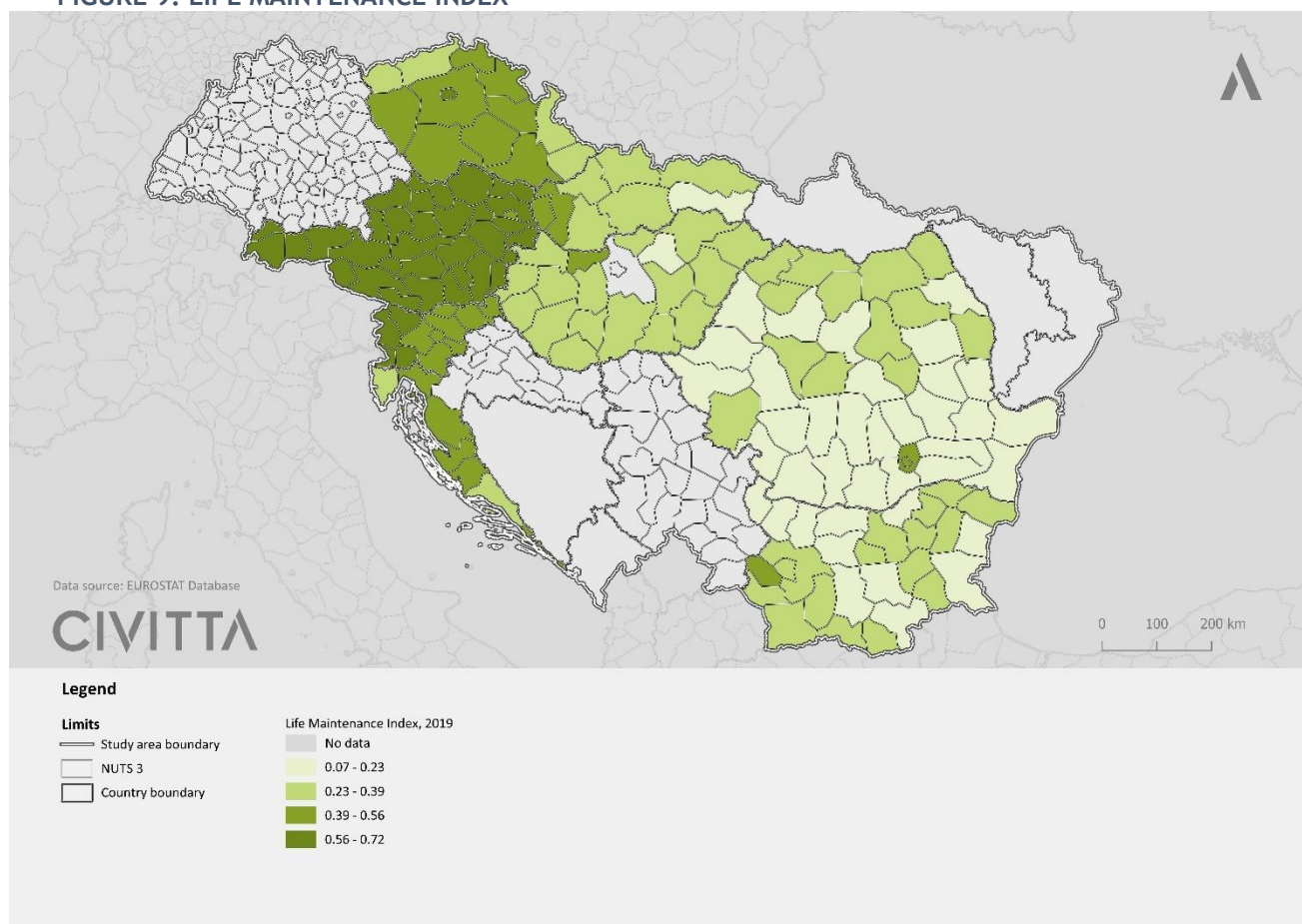3. Life Flourishing Index

Good Life Enablers Index - The personal sphere includes enablers of good shelter, education and health, measured by indicators of availability, accessibility and affordability of housing, basic utilities, education and health services in the territory. The socio-economic sphere includes enablers of good mobility, digital connectivity, work and consumption choices, social and cultural life in the territory. The ecological sphere includes enablers of good life in green environments (availability and maintenance of green infrastructure and protected areas)
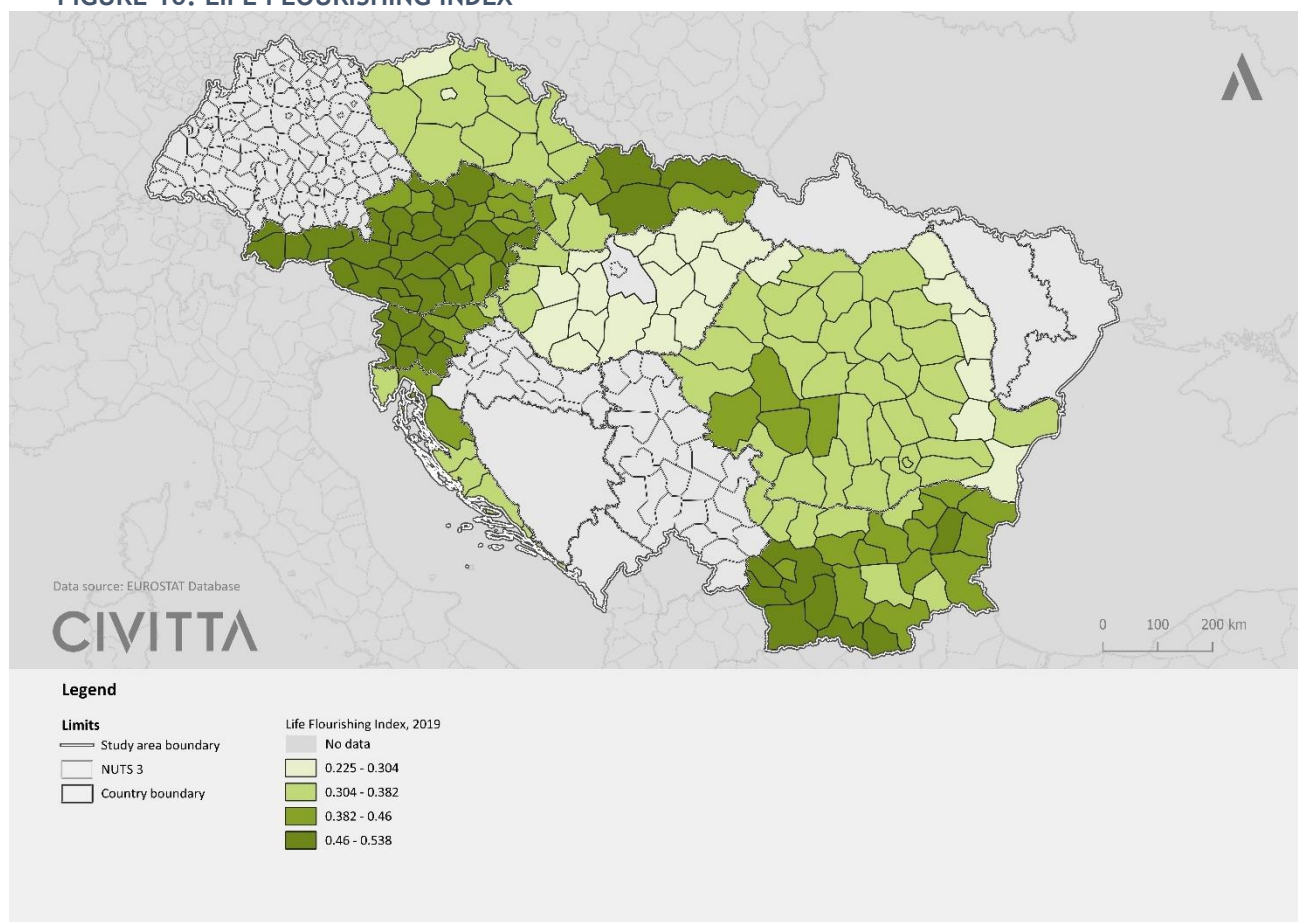
FIGURE 8. GOOD LIFE ENABLERS INDEX
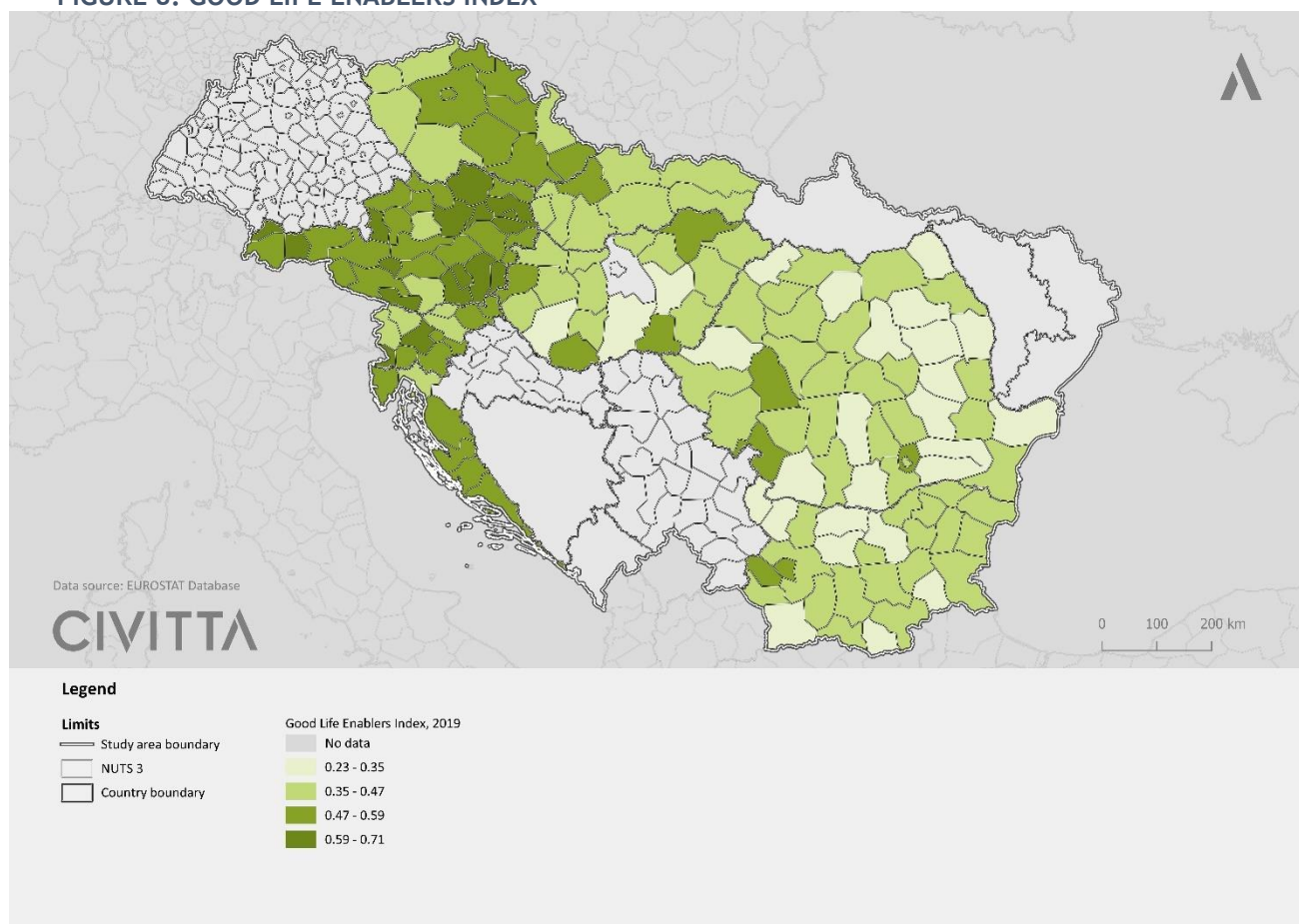
Life Maintenance Index - Life maintenance includes the personal, societal and ecological health conditions that the population enjoy in the place. The term "maintenance" indicates the capacity to remain "regulated within a range compatible with the survival" of the system. The "system" to maintain in the different spheres is respectively the individual organism (the integrity of personal body and mental health), the social system (the social resources necessary for the people living healthy together in one place – village, town, city, metropolitan area) or the ecological system. Life maintenance is measured by means of objective and subjective outcome indicators, to gauge the quality of personal, socio-economic and ecological health.

FIGURE 9. LIFE MAINTENANCE INDEX

Life Flourishing Index - Personal life flourishing is related to the prospects for improving living conditions in the future, and it is measured mostly by means of subjective outcome indicators (although some objective outcome indicators can be used as proxies of flourishing, e.g. suicide rates as a reverse proxy of self-esteem). Community flourishing is strongly correlated to interpersonal trust (societal belonging) and trust in institutions (quality of governance) indicators, measured at community level. Ecological flourishing is added to take into account the influence that wealthy ecosystems services have as quality of life perpetuation and biodiversity in a territory.

FIGURE 10. LIFE FLOURISHING INDEX

Data source: EUROSTAT Database

CIVITTA

Legend

Limits
— Study area boundary
□ NUTS 3
□ Country boundary

Life Flourishing Index, 2019
□ No data
□ 0.225 - 0.304
□ 0.304 - 0.382
□ 0.382 - 0.46
□ 0.46 - 0.538

Setting Targets

Although none of the 17 SDGs is solely concerned with culture, the resulting Agenda makes several explicit references to cultural aspects. The following aspects are particularly noteworthy:

- Target 4.7 refers to the aim to ensuring that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for global citizenship and the appreciation of cultural diversity and of culture's contribution to sustainable development

- Target 8.3 addresses the promotion of development-oriented policies that support productive activities as well as, among others, creativity and innovation.

- Targets 8.9 and 12.b refer to the need to devise and implement policies to promote sustainable tourism, including through local culture and products, and to the need to develop suitable monitoring tools in this area.

- Target 11.4 highlights the need to strengthen efforts to protect and safeguard the world's cultural and natural heritage.

Also, there are three SDG targets that relate directly to sustainable tourism, namely:

- Target 8.9: By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.
- Target 12.b: Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products
- Target 14.7: By 2030, increase the economic benefits to small island developing states and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

The current availability of indicators for these targets concern tourism employment and jobs. A focus only on these economic aspects of measurement will provide a partial picture of progress towards sustainable tourism culture and will not give a sense of the broader potential of these sectors to contribute to the wider sustainable development agenda and the other SDGs.

Table 1 also reflects tourism and culture's indirect contribution to the sustainable development agenda, alignment with PA3 actions, and potential indicators for measuring the contribution. However, setting targets for these indicators is currently impossible. First, there is a lack of data to assess the current situation, and second, more research on the values that are reasonable for sustainable development is required.

Recommendations for the Implementation of a Harmonized Monitoring System

The framework of indicators should be built strongly on available data sources. The scarce availability of NUTS 2 data on sustainable tourism and culture reinforces the urgency for the development a continuous integrated transnational network of entities (observatories) that will collect, process, and analyze data, as well as exchange and disseminate information on sustainable tourism and culture.

TABLE 3. EXTENDED LIST OF POTENTIAL INDICATORS FOR MEASURING SUSTAINABILITY IN TOURISM

CATEGORY	SUBCATEGORY	INDICATOR
Environment	Landscape and biodiversity protection	% of sites under a management and monitoring system for protection of cultural sites
		Percentage of region's territory included in Natura 2000
		Construction density per unit area
		No of green spaces for public use
		Public expenses on environment per 1000 inhabitants
		Completed impact assessment of environmental, social and cultural aspects of tourism (in terms of evaluating a tourism plan) (YES/NO)
		Existence and functioning of a representative coordinating mechanism for Maritime Spatial Planning (MSP) / Integrated Coastal Zone Management (ICZM) (YES/NO)
	Energy usage	Final energy consumption attributable to tourism
		Percentage of renewable energy consumption with respect to the total attributable to tourism
	Water management	Water consumption attributed to tourism
	Solid waste management	Volume of waste generated

	Climate change	CO2 emissions per inhabitant
	Tourism development intensity	Total tourists per unit area
		Daily number of tourists per 1 km2
		Maximum population density (peak season) per km2
		Beds in secondary residences (in % of total lodging capacity)
		Total number of tourists per square Km in key sites (crowding/spatial distribution)
		Accessibility of tourist attractions by public transport (YES/NO)
	Reducing transport impact	No of embarked and disembarked passengers – Airport
		No of embarked and disembarked passengers of cruise ships
Economic	**Tourism flow (volume and value) at destination**	Total number of tourist arrivals
		Average length of stay
		Number and origin of visitors to cultural sites per season (day, month, year)
		Average spending by tourists and excursionists
		Beds in official tourism accommodation establishments
		Number of non-official tourism accommodation establishments
		Number of beds reported/number of residents
	Tourism enterprise(s) performance	Tourism revenues
		Average occupancy rate for official tourism accommodation establishments
		Net occupancy rate of bed-places and bedrooms in hotels and similar accommodation
		Percentage of official tourism accommodation establishments that are open all year (seasonality)
		Ratio of low-season tourists to peak-season tourists (seasonality)
		% of key sites operating all year
		Net tourism exports
	Quantity and quality of employment	Percentage of employees in the tourism sector relative to total employment
Governance	**Sustainable tourism policy and planning**	Existence of land use planning, including tourism
		Varied offer of experiences (number of tourist attractions and products)
		Public investment in tourism as % of budget spent on tourism
		Existence of up to date tourism plans and policies (YES/NO)
		Existence of performance indicators designated for evaluating the plan developed and used (YES/NO)
Social	**Visitor perception**	Global satisfaction level of tourists (destination)
		Evaluation of the price-quality relationship by tourists
		Perception of the relation quality—price of lodging in destination (state or private).
		Evaluation of destination safety by tourists
		Satisfaction level by local residents

	Perception of residents	Perception of the local population regarding whether improved roads and transport infrastructure are results of tourism
		Perception of the local population regarding whether improved public services are results of tourism
		Perception of the local population regarding whether the tourists have an undesirable effect in the region lifestyle
		Perception of the local population regarding with what the tourism contributes to keep the young population in the city
		Perception of the local population regarding whether the life quality increases due the tourism
	Tourism development intensity	Ratio of tourists to locals
		Tourist intensity
		Ratio of peak season tourists to locals
		% seasonal percentage of non-resident employees in total number of tourism employee
	Inclusion/ accessibility	% accessible rooms

TABLE 4. EXTENDED LIST OF INDICATORS FOR MEASURING SUSTAINABILITY IN CULTURE

CATEGORY	SUBCATEGORY	INDICATOR
CULTURE	Protecting and enhancing cultural heritage (assets)	Number of cultural properties inscribed in the UNESCO World Heritage List and number of cultural practices and expressions inscribed in the UNESCO World Intangible Heritage List.
		Evidence of active participation of communities, groups and individuals in cultural policies and the definition of administrative measures integrating heritage (both tangible and intangible) and its safeguarding
		Funding spent in restoration of historic buildings
		Expenditure on cultural heritage
		Number of heritage properties with a Management Plan including a formalized framework for community participation
		Specific measures to promote the participation of minorities and/or indigenous groups in cultural life
	The intensity of cultural tourism development	Intensity of use of cultural sites
		No of visitors to cultural attractions/places (no/day)
		Share of visitors for cultural reason in total number of visitors (%)
		No of visitors attending or participating in cultural events (no/year)
	Perception of residents	Perceptions by the local population concerning the stimulation of local crafts and culture due to tourism
		Percentage of the population that is very satisfied with cultural facilities in a destination

Some of the suggested indicators may not be practical, but at this stage all potential indicators are noted. In practice, this list can initially be quite long, but provides a menu from which the best indicators can be selected. Some of the most potentially useful indicators may be found not to be feasible due to technical, financial, staff or other constraints that impede the gathering or processing of data. Such indicators can be set aside for future development, as the indicators process is not fixed in time and constant improvement is always desirable.

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