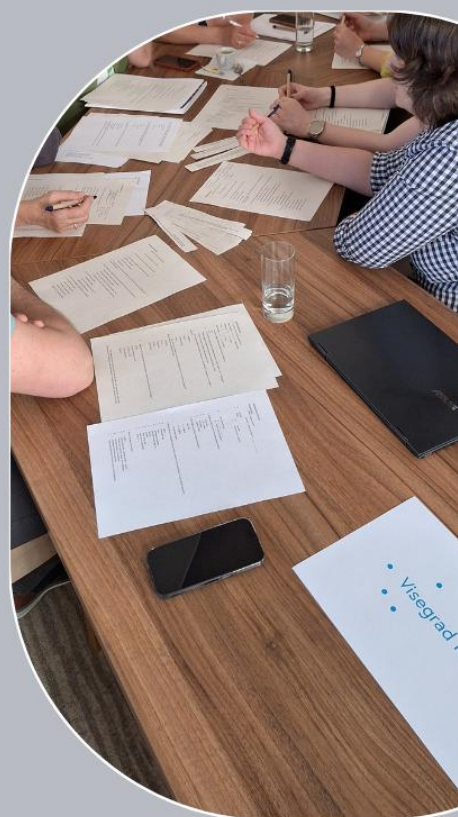


GUIDELINES ON DATA COLLECTION

IN CULTURAL DESTINATIONS



EDITED BY:
ZUZANA KVÍTKOVÁ

This book was created as part of the project “Data collection guidelines for tourism and sustainability monitoring in cultural destinations”, project ID #22320140.

The project is co-financed by the Governments of Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe.

Edited by: Zuzana Kvítková

© Zuzana Kvítková and the authors of the chapters, 2025

Authors:

Prof. Alina Zajadacz

Prof. Kristína Pompurová

As. Prof. Andrej Malachovský

As. Prof. Edlira Menkshi

Dr. Ágnes Pál

Dr. Alma Zhilla

Dr. Csilla Petykó

Dr. Éva Schultz

Dr. Ivana Šimočková

Dr. Ladislav Pátík

Dr. Sára Hegedüs

Dr. Zuzana Kvítková

Ing. Zdenka Petrů

CONTENT

Content	3
Introduction	6
1 The role and methods of tourism data collection, especially with regard to cultural tourism.....	8
2 Current situation in data collection	11
2.1 Poland.....	11
2.2 Slovakia.....	13
2.3 Czech Republic.....	15
2.4 Hungary	18
2.5 Albania.....	19
2.6 Summary table.....	20
3 List of indicators and statistics.....	21
4 Best practices summary.....	26
4.1 Key approaches to data collection in tourism	26
4.2 Common themes in successful monitoring systems.....	27
4.2.1 Key lessons and recommendations.....	28
5 Balanced system – tourists, business, residents in DMO’s and cultural destinations	29
5.1 Visitors – a reflection of quality and attractiveness	29
5.2 Local residents – keepers of authenticity and atmosphere	30
5.3 Entrepreneurs – the driving force of development and innovation	30
5.4 Why listen to all three groups?	31
6 Questionnaire and methodology development.....	32
6.1 Diagnosis of needs and practices in data collection on sustainable tourism in tourism destinations	33
6.2 Development and testing of prototypes for data collection tools	37
6.3 Recommendations for the “Guidelines on data collection”	39

6.4	Example of feedback.....	42
6.4.1	Residents	42
6.4.2	Business representatives	43
6.4.3	Observations.....	44
7	Questionnaires	45
7.1	Tourists	45
7.2	Locals /residents	51
7.3	Entrepreneurs.....	57
8	Technical sources of data	63
8.1	Pre-stay data collection options.....	63
8.1.1	Website visitor analysis and conversion tracking	63
8.1.2	Social listening and Sentiment analysis.....	64
8.1.3	Mobile applications	65
8.2	On site, during the stay.....	65
8.2.1	People counting systems	66
8.2.2	Intelligent traffic monitoring systems	66
8.2.3	Mobile tracking technologies.....	67
8.3	Post stay analysis	67
8.3.1	Instagram.....	67
8.3.2	TripAdvisor	68
8.4	Social listening	69
8.4.1	Key social media monitoring metrics	70
8.4.2	Practical considerations and limitations	72
8.5	Google tools.....	73
9	Promotion of the data collection and motivation.....	76
9.1	Strategy for tourists	76
9.1.1	Motivation strategy for tourists.....	76
9.1.2	Communication strategy for tourists	78

9.1.3	Process example	79
9.2	Communication strategy with locals /residents	79
	Conclusion.....	81
	References	84

INTRODUCTION

Tourism is a dynamic and rapidly evolving sector that plays a vital role in the economic, social, and cultural development of regions across Europe and beyond. In recent years, the importance of sustainable tourism has come to the forefront, particularly in destinations rich in cultural heritage, where the balance between visitor growth, quality of life for residents, and preservation of local identity is both a challenge and an opportunity. Effective management of these destinations requires not only vision and cooperation among stakeholders, but also robust, reliable, and timely data to inform decisions at every level.

This publication, created as part of the project “Data collection guidelines for tourism and sustainability monitoring in cultural destinations” (project ID #22320140), responds to the growing demand for comprehensive and practical guidance on how to collect, analyze, and utilize tourism data in support of sustainable destination management. Co-financed by the Governments of Czechia, Hungary, Poland, and Slovakia through Visegrad Grants from the International Visegrad Fund, the project brings together experts and practitioners from across Central and Eastern Europe and the Western Balkans to share experiences, identify best practices, and develop methodologies that are both innovative and adaptable to local contexts.

The book explores the evolution of tourism data collection from its roots in national statistics and administrative reporting to the integration of modern digital tools, big data analytics, and participatory approaches. It highlights the growing role of platforms such as Tourdata.cz and the increasing use of mobile data, social listening, and online reviews to supplement traditional indicators. Special attention is given to the unique challenges of monitoring cultural tourism, where intangible values, resident perceptions, and the diversity of attractions demand more nuanced and flexible methodologies.

Throughout the chapters, readers will find analyses of current practices in countries such as Poland, Slovakia, Czechia, and Albania, as well as good practice summary from leading European destinations. The publication addresses persistent barriers – including data fragmentation, limited resources, other concerns – and offers concrete recommendations for building integrated, stakeholder-driven monitoring systems. It also presents tested survey tools for

tourists, residents, and businesses, and discusses strategies for motivating participation and ensuring that data collection efforts are meaningful and effective.

Ultimately, this book aims to support destination managers, policymakers, researchers, and practitioners in their efforts to create resilient, vibrant, and sustainable cultural tourism destinations. By fostering a culture of data-driven decision-making, open communication, and collaboration among all stakeholders, the guidelines presented here contribute to the long-term prosperity and sustainability of some of Europe's most treasured places.

1 THE ROLE AND METHODS OF TOURISM DATA COLLECTION, ESPECIALLY WITH REGARD TO CULTURAL TOURISM

Although tourism is typically classified as part of the earth sciences, its economic importance makes it the subject of an economics approach, and this is how it is predominantly presented in higher education. It follows that the measurement of tourism is mainly carried out using quantitative methodologies, which generally appeared at national level with the institutionalisation of tourism starting at the end of the 19th century. The introduction of compulsory data provision varies from country to country, but in Central and Eastern Europe it started at the latest with the onset of the socialist transition - in Hungary from the 1960s - and its main fields are border statistics, accommodation statistics and population estimates, domestic tourism and tour operation and intermediation. Data collection by the national statistical offices - in Hungary the Central Statistical Office; ksh.hu - is carried out by means of mandatory data provision at different intervals (monthly or annual for the former, every ten years for the latter, census data for the latter) for the relevant offices, enterprises (all border crossing points before the accession to the Schengen area, since then all border crossing points outside the Schengen area; tourist accommodation establishments; travel agencies and intermediaries) and citizens with holiday assets (Probáld, 2018). In recent years, several countries have introduced real-time, digital data reporting obligations for tourism service providers, which is a pledge for data-driven sectoral governance, which is a strategic goal in tourism (in Hungary, the National Tourism Data Service Centre has been operating since 2018 under the supervision of the Hungarian Tourism Agency, although the data it collects are only partially available; ntak.hu, National Tourism Development Strategy 2030). Another method of data collection is a representative questionnaire survey of inbound, domestic and outbound visitors carried out by national statistical offices on a voluntary basis (Probáld, 2018). The scope of data reporting at regional level was defined by the European Union recommendations for Member States from 1995, which was replaced Regulation (EU) No 692/2011 from 2011 (eur-lex.europa.eu). These categories are: supply and demand data for tourist accommodation, socio-demographic data on domestic, inbound and outbound tourism, their trips and characteristics for single and multi-day intervals, reasons for not travelling.

At national, regional and global level, the data collection and analytical reporting of tourism agencies and professional associations play an important role. Notable among these are the European Travel Commission (ETC; etc-corporate.org), which brings together 36 national tourism organisations, and the World Tourism Organisation (WTO from 1975, UNWTO from 2003, UN Tourism from 2024; unwto.org), which has 160 member countries. The latter provides some of the main summary tourism statistics of its member countries (international and domestic visitor numbers, international expenditure, capacity and demand for tourist accommodation, tourism's contribution to GDP and related employment) on an up-to-date dashboard. Their activities, like those of other sectoral umbrella organisations, are particularly important because of their trend reports on specific tourism products, which are not published at a lower level as part of the overall tourism picture of the national economy but with a separate focus, or only rarely in ad hoc, periodic summaries.

Cultural tourism is defined by the UNWTO (2017) as "a tourism activity where the main motivation of the visitor is to learn about, discover, experience and purchase intangible and intangible cultural attractions/products in a destination. These attractions/products are linked in many ways to the different material, intellectual, spiritual and emotional characteristics of society through art and architecture, historical and cultural heritage, literature, music, creative industries and living culture (lifestyles, values, beliefs, traditions)." (UNWTO, 2018, 11.) According to the UNWTO Cultural Tourism Survey (2018) of 69 member countries, cultural tourism in its broader sense accounts for 47% of all travel and 16% in its narrow, primary motivation sense. Its importance is reflected in the fact that it has a prominent tourism policy role in 90% of countries and a strong tourism marketing presence in 84%. However, its measurability is a major problem; in 37% of the countries surveyed, there is no established measurement methodology for this area at all (UNWTO, 2018).

The root of the problem is the different approach to performance measurement and data collection as a means of measuring it, given the essentially non-profit - albeit increasingly marketised - nature of tourism and culture. Cultural supply and consumption data, as defined by the European Union's cultural statistics framework, do not include the invisible export of cultural goods by tourism. Member States' supply data do not include cultural institutions, which are predominantly state, municipal and foundation-run, and which can be

understood in part as attractions, but only cultural enterprises; demand data include the spatial aspects that are essential for understanding the tourism dimension of cultural consumption (Eurostat, 2018). At the national level, the data collection criteria for cultural institutions also do not typically include tourism approaches, with the exception of museums, which are generally the most prominent as attractions and therefore - uniquely - are also included in statistical analyses at the European and global level of culture (EGMUS, AECOM). In their case, at the national level, the estimated or actual number of foreign visitors may also be included, reporting the proportion of tourists (e.g. for Hungary; kulturalisstatistika.hu). A further difficulty is that exhibitions and collections that are not officially classified as museums, typically with a for-profit maintenance background, are statistically invisible, as are all cultural tourist attractions that are not classified as museums, libraries or theatres. Festivals are also not compulsory data providers at national level, and measuring the demand for those that can be visited without a ticket is difficult, even for the purposes of own market research. Visitor surveys of cultural attractions can be considered as a partial solution (in Hungary, the last national survey was carried out in the evening of museums in 200-2008; Puczkó, 2009). Although this may be hampered by lack of resources and the publication of results is not always done, there are international good practices (ATLAS).

The aforementioned marketisation process, which is also being felt globally, is leading to a revaluation of the importance of tourism for the institutional players in the cultural sector. According to a representative Hungarian research, museums' hierarchy of objectives is followed by the achievement of their mission, especially in the case of rural institutions (Makranczi, 2021). To achieve this, data provision and communication are essential, and this project aims to help in this regard.

2 CURRENT SITUATION IN DATA COLLECTION

2.1 POLAND

Monitoring tourist traffic in Poland plays a crucial role in tourism planning and management, particularly in key regions such as Kraków and Małopolska. By analyzing visitor numbers, demographics, behaviors, and economic impact, authorities can develop effective strategies for sustainable tourism. The methods of data collection can be categorized into direct, indirect, and Big Data-based approaches. Direct methods include primary data collection through face-to-face interviews and electronic surveys, as well as tourist registration at key locations such as museums, airports, hotels, and transport hubs. Indirect methods involve secondary data analysis, incorporating statistical reports from institutions like The Central Statistical Office (GUS), Local Data Bank (BDL), records from hotels, travel agencies, and public transport, as well as financial transaction data reflecting tourist expenditures. Additionally, the growing role of Big Data allows for the use of digital technologies, such as mobile application data, website analytics from Selectivv, and geolocation-based movement tracking, to gain deeper insights into tourist behaviors.

A prime example of comprehensive tourist traffic monitoring can be found in Kraków, which employs a triangulation research methodology. This approach integrates direct surveys with tourists, Big Data analytics from mobile applications and online platforms, and secondary data from sources such as GUS, airports, and hospitality businesses. These studies provide valuable insights into visitor numbers, demographics, and spending patterns, as well as the city's tourism appeal, service quality, and visitor satisfaction. The collected data serves as a foundation for strategic planning, including initiatives like the Sustainable Tourism Policy for Kraków 2021-2028.

Warsaw also conducts systematic monitoring through the Tourism Office, which regularly publishes Tourism in Warsaw reports. These reports are based on statistical analyses, opinion surveys, and economic studies that assess tourism's contribution to GDP, investments, taxation, and employment. Meanwhile, in Wielkopolska, the Statistical Office in Poznań compiles data for Tourism in Wielkopolska, a publication within the Statistical Analysis series. This research covers accommodation infrastructure, border traffic at regional airports,

tourism-related business activity, and public spending on tourism development. Additionally, the Poznań Local Tourism Organization (PLOT) operates the Tourism Barometer of Poznań, which has provided monthly data since 2012 on the number of tourists, hotel occupancy rates, visits to local attractions, and passenger traffic at Poznań-Ławica Airport. These insights are essential for shaping regional tourism policies and investment decisions.

On a national level, tourism monitoring in Poland involves reports from GUS and regional institutions, studies conducted by the Polish Tourism Organization, and market competitiveness analyses. Research also extends to the hospitality, gastronomy, and transport sectors to ensure a comprehensive understanding of tourism dynamics. Among the best practices observed in Polish tourism monitoring are the integration of data from multiple sources, regular trend analysis through systematic studies, and the use of modern technologies such as geolocation and mobile applications. Collaboration between tourism entities, local governments, and research institutions further enhances the effectiveness of data-driven strategies. Moreover, sustainability remains a key focus, ensuring that tourism development considers its impact on local communities and the environment.

Despite these advancements, certain challenges persist. High research costs often require significant public funding, while limited access to private sector data can restrict the scope of analysis. The lack of a unified methodology across regions also poses difficulties in creating standardized national reports. Additionally, privacy concerns regarding the use of mobile data necessitate appropriate legal and ethical regulations.

As tourism continues to evolve, the development of advanced monitoring systems becomes essential for efficient management and sustainable growth. Moving forward, a key recommendation is the integration of data sources to create a more comprehensive analysis at both national and regional levels. This will not only improve tourism management but also ensure that its long-term impact on residents and the environment is carefully considered.

2.2 SLOVAKIA

Destination management in tourism (DMO) in Slovakia faces several issues in local-level data collection that fundamentally affect the effective management and planning of tourism development. One of the main problems is the insufficient coordination between tourism stakeholders, local governments, and state institutions. Many municipalities and regions lack the capacity and expertise to systematically collect data, which leads to incomplete or outdated information on visitor numbers, visitor profiles, or the economic benefits of tourism.

Another issue is the low willingness of accommodation and catering establishments to provide relevant data. Despite the obligation to report data on the number of overnight stays, these figures are often underestimated or inaccurately reported, distorting the statistics. The reasons for this include fear of higher taxation, bureaucratic burdens, or mistrust in the use of the data.

Technological underdevelopment and the absence of unified systems for data collection and sharing among DMOs pose another barrier. Several destinations use different software, complicating the comparability of data on both regional and national levels. Furthermore, there is a lack of regular analysis and interpretation of the collected data, which makes it difficult to develop effective marketing strategies and development plans.

A key problem remains the weak funding of DMOs, which limits the ability to invest in modern data collection tools such as digital counting devices, mobile applications, or visitor satisfaction surveys. Overcoming these barriers is essential for the professional management of destinations and for enhancing Slovakia's competitiveness as a tourist destination.

A deeper examination of local-level data collection within the framework of destination management in tourism in Slovakia reveals several structural and practical shortcomings that significantly hinder the effective management of tourism development.

- Fragmentation of data collection

At the local level, there is no unified methodological framework specifying what data should be regularly collected, in what form, and using which methodology.

Each destination or regional tourism organization (OOCR) often works with its own templates, lacking coordination with higher management levels. The result is incomparable, incomplete, and inconsistent data that hinder a comprehensive evaluation of destination performance.

- Dependence on official statistics

Most local DMOs rely on data from the Statistical Office of the Slovak Republic, which is published with a time lag, is not sufficiently detailed, and does not capture, for example, day visitors or informal accommodations (such as Airbnb or private rentals). There is a lack of flexibility in obtaining up-to-date data, preventing rapid responses to changes in demand or visitor behaviour.

- Low digitization of processes

Many destinations still use outdated methods for recording data—manually maintained statistics or simple spreadsheet programs. Modern technological solutions, such as online reporting systems from service providers, mobile applications for collecting visitor feedback, or automatic counters for pedestrian movement in tourist-exposed areas, are used only minimally, predominantly in more developed regions.

- Lack of motivation among practical partners

Operators of accommodations, attractions, or gastronomy often do not see a direct benefit in providing data to DMOs. Without creating a system of incentives for cooperation—such as access to analytical outputs, benchmarking, marketing support, or grants—their willingness remains minimal. Concerns about oversight, increased levies, or administrative burdens lead to low quality and accuracy of the submitted data.

- Funding and personnel capacities

Smaller destinations often do not have sufficient budgets for professional data collection, analytical processing, or the implementation of modern tools. The turnover of experts and the lack of qualified personnel who can work effectively with the data and translate it into strategic decisions also pose significant problems.

- Lack of visitor analytics

Most data collection still focuses on quantitative indicators—such as the number of overnight stays, arrivals, and accommodation revenues. Qualitative aspects, such as visitor satisfaction, preferred activities, demographic profiles, or reasons for visiting, are rarely and unsystematically studied. Such data, however, would allow for more targeted shaping of destination offerings and marketing.

If Slovakia is to increase the competitiveness of its destinations, it is necessary to systematically address local-level data collection—by establishing methodological standards, supporting digitization, motivating entrepreneurs to cooperate, and investing in analytical capacities. Without quality data, destination management remains more intuitive than strategic, reducing the effectiveness of marketing and development activities.

2.3 CZECH REPUBLIC

The Czech Republic's tourism sector relies on data collection to monitor trends, inform policy, and support sustainable growth. This system integrates traditional statistical methods with emerging digital tools, ensuring comprehensive coverage of domestic and international visitor flows, economic impacts, and regional dynamics. Central to this framework is the Tourdata.cz platform, a collaborative initiative managed by CzechTourism and the Ministry of Regional Development, which serves as the primary repository for tourism statistics, research, and analytical tools.

The Czech Statistical Office (CZSO) operates as the cornerstone of official tourism statistics, adhering to EU regulations and international standards such as the International Recommendations for Tourism Statistics (IRTS 2008). Its monthly and quarterly surveys of collective accommodation establishments (e.g., hotels, guesthouses) generate core metrics on arrivals, overnight stays, and guest demographics. These surveys are complemented by the Register of Collective Accommodation Establishments (RUZ), which ensures all licensed providers are accounted for in national statistics.

CzechTourism, through its Institute of Tourism, expands this framework by conducting specialized research, including tracking studies of domestic and inbound tourism, mystery shopping assessments of tourist information centers, and analyses of resident sentiment toward tourism impacts. Collaborative

projects with mobile operators, leverage anonymized GSM data to map visitor mobility patterns, distinguishing between tourists (overnight visitors) and excursionists (day-trippers). This integration of traditional surveys and big data reflects a broader shift toward hybrid methodologies, enhancing the accuracy of regional and seasonal analyses.

The Ministry of regional development coordinates policy interventions based on these datasets, particularly in infrastructure development and EU fund allocation. Meanwhile, Tourdata.cz acts as the centralized portal for disseminating statistics, research reports, and interactive dashboards, consolidating inputs from the CZSO, CzechTourism, and third-party platforms like Airbnb and Booking.com.

Tourism data in the Czech Republic is structured across multiple administrative and geographic tiers, ensuring tailored insights for policymakers and businesses. At the national level, aggregated statistics capture macro-level trends, such as the record 8 million visitors to Prague in 2024. These figures are disaggregated into 14 regions and 70+ subregional destinations, aligning with the country's tourist zoning system rather than strict administrative boundaries. For instance, the Karlovy Vary Region's data distinguishes between spa towns like Mariánské Lázně and cultural places like Locket, enabling targeted marketing strategies.

Thanks to sharing data between local authorities, the CZSO, and Tourdata.cz, offering real-time insights into visitor numbers, destinations like Kladensko-Slánsko have adopted localized monitoring via Tourdata.cz, tracking metrics and developing the destination based on data analysis.

The CZSO's Surveys of Collective Accommodation Establishments (HUZ) remain the bedrock of data collection, capturing 95% of registered providers through mandatory monthly submissions. These surveys classify establishments by size (e.g., hotels with 100+ beds) and category (e.g., 4-star hotels), ensuring consistency with Eurostat's NACE. However, the rise of peer-to-peer platforms has necessitated supplementary methodologies. Since 2021, the CZSO has integrated data from Airbnb and Booking.com into its Tourism Satellite Account (TSA).

Mobile data analytics, pioneered by CzechTourism, now play a pivotal role in tracking unregistered visitors. By analysing anonymized GSM signals, researchers differentiate between domestic excursionists (e.g., day-trippers to Český

Krumlov) and international tourists, with algorithms filtering out local residents based on dwell time and movement patterns. This approach revealed, for instance, that 22% of Prague's 2023 visitors were same-day travelers from Germany, a cohort previously undercounted in traditional surveys.

Qualitative insights are gathered through face-to-face interviews at major attractions, conducted quarterly by external company and organized by CzechTourism. These interviews assess visitor satisfaction, expenditure patterns, and cultural preferences, with results uploaded to Tourdata.cz's Tracking DCR a PCR module. Concurrently, the platform hosts resident sentiment surveys, measuring irritation index scores in over 150 municipalities to gauge community tolerance toward tourism growth.

Tourdata.cz is the linchpin of data accessibility, offering free access to:

- Interactive dashboards for hotel occupancy, pricing, and visitor demographics, updated quarterly.
- Methodological guides
- Customizable reports, allowing users to filter data by region, accommodation type, or visitor origin.

Regional stakeholders benefit from capacity-building initiatives, such as CzechTourism's annual workshops on data literacy. These sessions train local DMOs in using Tourdata.cz's predictive analytics tools, which forecast occupancy rates and optimize marketing budgets.

Despite its strengths, the system faces challenges in capturing informal accommodation and cross-border day-trippers. It also fails in monitoring the economic contributions on regional and municipality level (GDP) and employment contribution on municipality level etc. The day-trippers are significant groups in some cultural destinations, especially in Central Bohemia region. The GSM tracking is still not introduced on a central level and for the local institutions it is too expensive.

2.4 HUNGARY

The most extensive and comprehensive digital development of the Hungarian tourism sector to date is the establishment of the National Tourism Data Service Centre (NTAK), which began operations in 2019 under the supervision of the Hungarian Tourism Agency, as designated by the government. The NTAK aims to collect operational and performance-related data from domestic tourism service providers—accommodation establishments, catering units, and tourist attractions—via automated digital means. These data are integrated into a unified central database, allowing for real-time, anonymous, aggregated analysis. The system plays a critical role in enhancing data-driven decision-making, improving transparency, and contributing to the formalisation of the tourism economy.

In accordance with the applicable legal framework, all accommodation providers in Hungary are required to register each of their facilities with the NTAK. As of 1 November 2021, this registration obligation has been extended to include catering units and tourist attractions, with their data provision duties commencing on 1 July 2023. The data submission process is facilitated through NTAK-compliant software used by service providers, with daily updates. Compliance with registration and reporting obligations is monitored by the territorially competent notaries.

The NTAK enables the real-time monitoring of anonymised statistical data for all registered tourism operators nationwide, including the number of guest nights, occupancy rates, and the nationality of visitors. The aggregated datasets serve as a basis for analyses that support evidence-based decision-making within the tourism sector, such as targeted marketing strategies, capacity planning, and development policy formulation. Furthermore, specific data segments are made accessible to the National Tax and Customs Administration (NAV) and local municipalities, thereby enhancing regulatory oversight and contributing to the whitening of the sector.

The NTAK is closely aligned with the objectives of the National Tourism Development Strategy 2030, which identifies digitalisation, innovation, and transparent governance as the key pillars for the future development of Hungarian tourism. As such, the platform functions not merely as a statistical

tool, but as a strategic instrument integral to ensuring sustainability, competitiveness, and long-term viability in tourism governance.

2.5 ALBANIA

Albania has established a robust institutional framework for collecting statistical and administrative data. Key institutions such as INSTAT (Institute of Statistics), AKSHI (National Agency for Information Society), Bank of Albania, and various ministries collect and process data to monitor social, economic, and demographic developments. Data collection in Albania is conducted through a combination of national surveys and administrative records, such as the Population register, Labor force survey, and Household budget survey. In addition, digital tools-including online portals, e-government systems, and statistical platforms-play an increasingly important role. Albania also collaborates with international organizations like Eurostat, UNDP, and the OECD to ensure its statistical practices are aligned with European standards.

Tourism is a vital sector for Albania, contributing significantly to GDP, employment, and regional development. Accurate data collection and analysis in this field are essential for informed policy-making. In 2024, Albania welcomed 11.7 million foreign tourists, marking a 15.2% increase from the previous year. Tourism revenues reached 5 billion euros, with each tourist spending an average of 384 euros, according to data from the Bank of Albania and the Ministry of Tourism and Environment. The country has seen notable growth in mountain tourism, cultural tourism, and agritourism. Key sources of tourism data include INSTAT, which provides official statistics on arrivals, length of stay, and main destinations; the Bank of Albania, which supplies data on tourist spending and the balance of payments; and the Ministry of Tourism and Environment, which tracks permits, development projects, and investments. Digital platforms and border control management systems like TIMS also contribute valuable real-time information.

Despite progress, several challenges remain. Data sources are often fragmented and lack harmonization, making comprehensive analysis difficult. There is limited information on seasonal and alternative forms of tourism, such as camping, adventure tourism, and guesthouses. The absence of integrated geospatial

analysis tools means that the regional distribution of tourist flows is not systematically monitored. Additionally, local capacity for statistical analysis remains limited.

To address these challenges, it is recommended to create a shared tourism data platform that integrates information from INSTAT, AKT, TIMS, and the private sector. Expanding the use of technology-such as sensors, mobile device data, and booking platforms-can enable real-time data collection. Increasing transparency and public access to tourism data will benefit researchers, investors, and policymakers. Finally, greater collaboration with academia and civil society is needed to support in-depth research on the economic and social impacts of tourism.

2.6 SUMMARY TABLE

Country	Main Institutions	Data Collection Methods	Key Challenges
Poland	GUS, BDL, Polish Tourism Org., Regional DMOs	Surveys, registrations, big data, financial data, mobile analytics	High costs, fragmented methods, private sector data access
Slovakia	Statistical Office, Local DMOs	Official statistics, manual records, limited digital tools	Fragmentation, low digitization, lack of incentives, funding shortages
Czech Republic	CZSO, CzechTourism, Ministry of Regional Development, Tourdata.cz	Surveys, GSM/mobile data, online platforms, interviews	Informal sector coverage, day-trippers, local analytics capacity
Hungary	National Statistical Office, Regional DMOs	Surveys, mandatory reporting, digital tracking	Likely similar to peers: resource constraints, standardization
Albania	INSTAT, Bank of Albania, Ministry of Tourism and Environment, AKSHI	Surveys, administrative records, digital/border systems	Data fragmentation, limited geospatial analysis, local analytical capacity

3 LIST OF INDICATORS AND STATISTICS

Based on the literature, different guidelines and recommendations, a list of criteria was created. The list was partially created already in the Visegrad Project # 22120090 UNESCO sites – balanced and sustainable tourism development, which focused on monitoring the sustainability. The final list was complemented by other indicators regarding the visitation. Several indicators were taken from the good practices collected in the first stage of the project as well.

Figure 1: ETIS



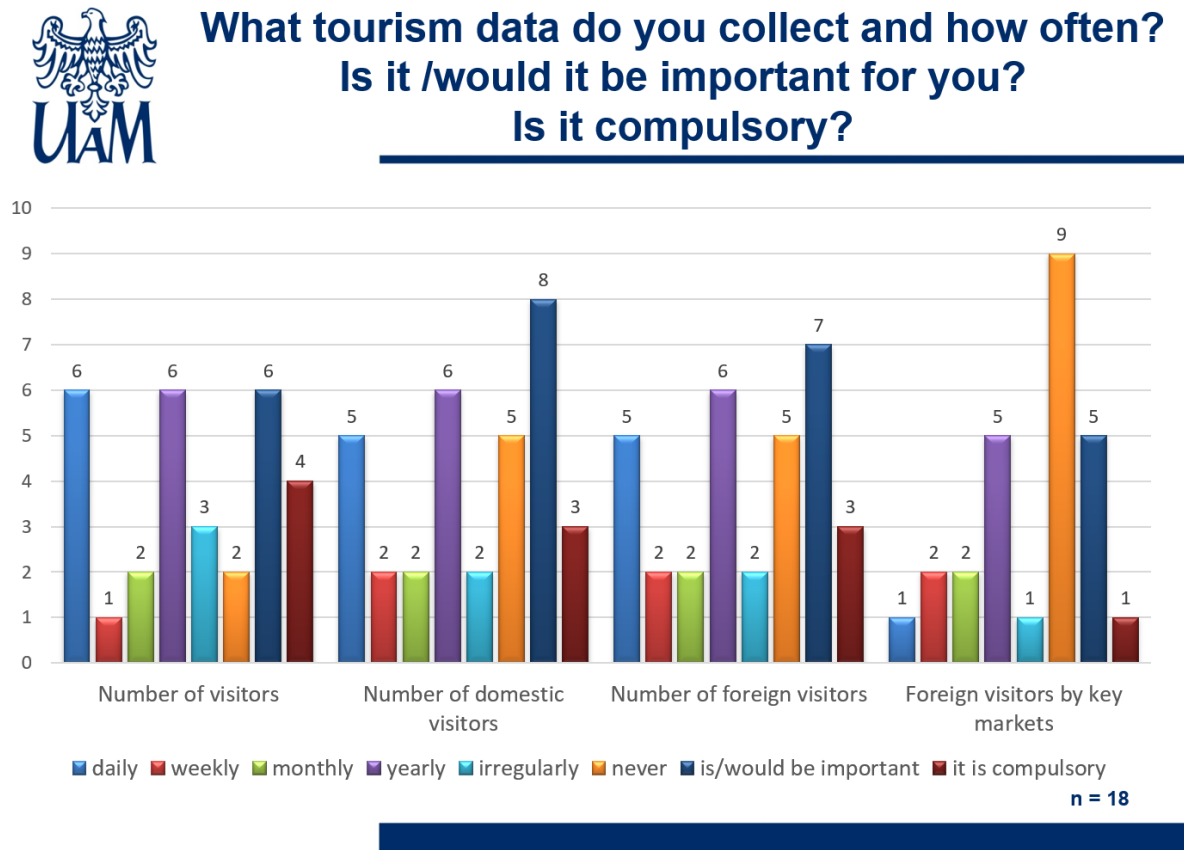
Green Destinations Standard V2


Recognised by GSTC

Source: <https://sustainableunesco.vse.cz/scientific-papers-and-research/>

These criteria were included in the needs analysis to see how they are perceived by the DMOs and municipalities. The needs analysis revealed the data important for the institutions and relevant bodies, asked about what data are currently collected, how are they collected and how often.

Figure 2: Example of the result from the needs analysis



 **Which methods would you consider effective in terms of quantity, accuracy, reliability, and/or informational contribution? Please specify if you have any good practice which you are currently using or you know about.**

- Currently, we do not have the financial capacity to conduct this type of research. The most effective research should be conducted based on teleinformatics systems, providing real-time data.
- Data collected by individual facilities, entered into the system, and regularly transmitted.
- Tourist Information recording the number of visits, phone calls.
- Due to the nature of our organization, we do not collect data, unfortunately, neither **does any organization at the municipal level.**
- Direct interview plus postal code.
- Face-to-face interview, data from destination sites.
- Oral interview.
- There is no single method that will be effective and accurate.

Source: Own research

The indicators, seen as bringing valuable information were the following:

1. foreign visitors by key markets
2. % of returning visitors
3. difference in low vs. high season visitation
4. number of one-day visitors
5. average length of stay
6. subjective perception of positive vs. negative impacts of tourism by locals
7. number of Airbnb accommodations
8. the capacity of accommodation facilities
9. number of beds by category
10. accessibility for people with special needs
11. number of parking spaces
12. expenditures of tourists
13. expenditures of one-day visitors
14. share of tourism businesses actively supporting the protection of nature and cultural values
15. increase in businesses, guides etc.
16. subjectively perceived parking issues
17. Share of ratings on the TOP 5 attractions (tourist concentration)
18. The average distance from which visitors are arriving
19. sentiment of comments from social media
20. Reviews posted by tourists on Google
22. Percentage of residents satisfied with the number of tourists
23. % of certificated sustainable business
24. the subjective perspective of traffic intensity
25. number of businesses making steps towards energy/water saving
26. number of businesses using some renewable energy sources
27. number of businesses segregating/separating wastes

28. contribution of employment
29. visitor satisfaction
30. occupancy
31. perception of congestion and overcrowding
32. safety and security
33. noise pollution
34. level of commercialization
35. Most liked attraction

Most of the criteria focuses on tourism and visitation. An important part, however, focuses on the sustainability and future potential of the destination.

During the meeting in Korce, Albania, they were analyses one by one and discussed how to obtain the data and what is to be included in the questionnaires. These 22 were identified as potential content of the questionnaires:

- % of returning visitors
- number of one-day visitors
- average length of stay
- subjective perception of positive vs. negative impacts of tourism by locals
- accessibility for people with special needs
- expenditures of tourists
- expenditures of one-day visitors
- share of tourism businesses actively supporting the protection of nature and cultural values
- subjectively perceived parking issues
- The average distance from which visitors are arriving
- Percentage of residents satisfied with the number of tourists
- the subjective perspective of traffic intensity
- number of businesses making steps towards energy/water saving
- number of businesses using some renewable energy sources
- number of businesses segregating/separating wastes
- visitor satisfaction
- occupancy

- perception of congestion and overcrowding
- safety and security
- noise pollution
- level of commercialization
- most liked attraction

The indicators were divided into the questionnaires for tourists, entrepreneurs and residents. The individual questionnaires are presented in the next chapters.

4 BEST PRACTICES SUMMARY

The "Best Practice Collection" presents a comprehensive collection of data collection methodologies and monitoring systems for sustainable tourism management across European cultural destinations. Created as part of the project "Data collection guidelines for tourism and sustainability monitoring in cultural destinations" (project ID #22320140). The collection showcases case studies from diverse European destinations, including Barcelona, Český Krumlov, Vienna, Gjirokastra, Linz, Veszprém, Krakow, Warsaw, Greater Poland, and Piedmont.

4.1 KEY APPROACHES TO DATA COLLECTION IN TOURISM

The Collection highlights various methodologies employed across destinations, categorized into:

- Direct methods
 - Questionnaire-based research through interviews and surveys with tourists,
 - Physical registration and counting at key points (parking lots, attractions, trails),
 - Visitor feedback collection at tourist information centers.
- Indirect methods
 - Institutional data collection via hotel registrations and travel agencies
 - Statistical reporting from accommodation facilities, museums, and attractions,
 - Analysis of economic indicators (local fee revenues, retail and hospitality turnover).
- Digital methods and big data
 - Mobile data analysis through smartphone applications and usage patterns,
 - Web statistics and sentiment analysis from online reviews,
 - Social media monitoring for visitor preferences and experiences.
- Integrated approaches

- Triangulation research combining quantitative and qualitative methodologies,
- Multi-stakeholder data coordination frameworks,
- Temporal and geographical benchmarking.

This summary and systematic overview brings an important input into the suggested methodology.

4.2 COMMON THEMES IN SUCCESSFUL MONITORING SYSTEMS

- Stakeholder collaboration

Successful destinations establish strong partnerships between public institutions, private enterprises, educational institutions, and community organizations. Vienna's Tourist Board exemplifies this through its interdepartmental task forces and extensive collaboration with external stakeholders.

- Regular and continuous monitoring

Continuity in data collection is crucial for meaningful trend analysis. Český Krumlov demonstrates how consistent monitoring using comparable methodologies facilitates effective strategic planning and adaptation to changing tourism patterns.

- Integration of cultural and tourism data

The European Capital of Culture cities (Linz, Veszprém) show how cultural metrics can complement traditional tourism indicators, providing a more holistic understanding of destination performance and sustainability.

- Balancing quantitative and qualitative approaches

While visitor numbers and economic impacts remain important, leading destinations increasingly incorporate qualitative assessments of experiences, perceptions, and satisfaction to guide development strategies.

- Technology integration

From mobile data analysis in Krakow to visitor apps in Linz, technology plays a central role in modern tourism monitoring, offering real-time insights and more granular understanding of visitor behavior.

4.2.1 Key lessons and recommendations

1. **Integrated data collection:** Combine traditional statistics with innovative sources like mobile data and online reviews for comprehensive understanding.
2. **Resident-focused metrics:** Monitor impacts on local communities and environments alongside tourist satisfaction to ensure truly sustainable development.
3. **Data continuity:** Maintain consistent methodologies for meaningful long-term analysis and trend identification.
4. **Tailored approaches:** Adapt monitoring systems to destination-specific challenges and objectives rather than applying generic frameworks.
5. **Strategic application:** Ensure collected data directly informs tourism strategy and management decisions, as demonstrated in Barcelona's sustainable tourism approach.
6. **Seasonal considerations:** Pay special attention to seasonality patterns in data collection to address challenges like overtourism during peak periods.
7. **Public transparency:** Make data findings available to all stakeholders, including residents, to build trust and facilitate collaborative decision-making.

The best practices demonstrate the evolution of tourism data monitoring from basic statistical reporting to sophisticated, integrated systems supporting sustainable destination management. Successful destinations combine various methodologies, involve multiple stakeholders, maintain consistency in data collection, and use insights to inform strategic decisions. By balancing quantitative metrics with qualitative assessment, cultural destinations can better navigate the complexities of tourism development, enhancing visitor experiences while preserving local quality of life and cultural heritage.

5 BALANCED SYSTEM – TOURISTS, BUSINESS, RESIDENTS IN DMO'S AND CULTURAL DESTINATIONS

Why Are the Opinions of Visitors, Local Residents, and Entrepreneurs Crucial for Managing Cultural Tourism Destinations?

Cultural destinations are a unique type of place where tourism is not only based on natural beauty or recreational activities but primarily on unique cultural heritage, history, crafts, traditions, and the lifestyle of local communities. Managing these destinations requires a sensitive approach that respects the needs of all stakeholders and aims to balance the preservation of cultural values with tourism development. This is why the opinions of three key groups—visitors, local residents, and entrepreneurs—are an integral part of any effective destination management. These groups represent the fundamental pillars of a destination's functioning, and their coexistence in harmony is necessary for sustainable and long-term prosperity.

5.1 VISITORS – A REFLECTION OF QUALITY AND ATTRACTIVENESS

Visitors are the most visible indicator of a destination's success. Without them, many historical sites, events, and services would not exist in their current scope and quality. Their feedback allows us to objectively evaluate whether a destination's cultural offerings are relevant, authentic, understandable, and competitive. In regions like Spiš, which boasts UNESCO sites such as Spiš Castle, historical churches, and traditional crafts, visitors assess not only the monuments themselves but also the accompanying services—guide quality, information accessibility, thematic events, and local gastronomy.

Visitor surveys reveal both strengths and weaknesses of a destination. A common issue is the lack of connection between attractions into a logical thematic circuit. For example, a visitor may tour a castle but find no accompanying activities, recommended routes, events, or experiences that would extend their stay. In Banská Štiavnica, visitor feedback led to the introduction of underground mine tours, night city walks, and craft workshops, enhancing the overall experience.

Visitor opinions also shape destination marketing strategies. Understanding why tourists visit, what appeals to them, and what they miss helps target marketing efforts effectively. As a result, visitor data becomes a strategic management tool rather than just statistics.

5.2 LOCAL RESIDENTS – KEEPERS OF AUTHENTICITY AND ATMOSPHERE

Local residents are the soul of every cultural destination. Without them, a place would lose its authenticity, atmosphere, and living culture. They preserve traditions, customs, crafts, and create the unique character that attracts visitors. In towns like Modra or Pezinok, it is the local winemakers, potters, and folk event organizers who give the town its distinctive identity. If tourism disrupts their daily lives, displaces them, or reduces their quality of life, these cultural values may disappear.

This is why local opinions are crucial when making tourism development decisions. Gathering their feedback reveals how tourism impacts their everyday lives. A common problem in cultural destinations is overtourism during major events, such as the Trnava Fair or the Bratislava Coronation Days. Local residents often report issues like overcrowded transport, noise, litter, or rising service prices, which negatively affect their well-being.

When local voices are systematically included in decision-making, conflicts can be prevented. Regulatory measures such as limiting event numbers, controlling noise levels, improving parking planning, or creating community tourism benefits (e.g., supporting local organizations, revitalizing public spaces, or offering resident discounts for cultural events) can be implemented.

5.3 ENTREPRENEURS – THE DRIVING FORCE OF DEVELOPMENT AND INNOVATION

Entrepreneurs are essential for cultural destinations' functionality. They provide services that visitors expect, bring innovation to tourism products, organize events, and often invest their own resources into destination development. In the Gemer region, known for its Gothic churches and industrial heritage, small

business owners—guesthouse operators, restaurant owners, and tour guides—are the ones seeking ways to make the region attractive despite its remoteness. Their insights are key to setting up practical measures such as joint marketing strategies, coordinated opening hours, better cultural trail integration, and transport solutions. Entrepreneurs in cultural destinations frequently point out bureaucratic obstacles or restrictions linked to heritage protection, which complicate their business operations. Collecting their feedback early allows for fair rule-setting and the creation of a business-friendly environment that benefits everyone.

5.4 WHY TO LISTEN TO ALL THREE GROUPS?

Only when the opinions of these three groups intersect and complement each other can a destination be managed strategically and sustainably. If visitors are satisfied, businesses thrive, and residents enjoy an improved quality of life. Opinion gathering must not be a one-time activity but a systematic process that provides ongoing data for decision-making. In cultural destinations, this is especially important because they deal with fragile heritage that must be both protected and developed.

Ultimately, it is not just about numbers but about the quality of experiences, community satisfaction, and the long-term viability of a destination. This can only be achieved by attentively listening to all three groups.

6 QUESTIONNAIRE AND METHODOLOGY DEVELOPMENT

Recommendations for developing the *Guidelines on Data Collection* were formulated based on all stages of work within the project, starting with *Needs Analysis for Destinations Focused on Cultural Tourism (Step 1)* and *Good Practices Collection in Poland (Step 2)*. Data were presented and discussed in a broader context during a project partners' workshop held in March 2024 in Korçë, Albania. The workshop focused on *Development of Data Set, Questionnaire, and Data Collection Guidelines* (Internal Project Workshop, **Step 3**). The outcomes of this stage served as the basis for work related to *data collection issues, experience, and good practice sharing* during the meeting in Budapest (April 2024, **Step 4**). As a result, **prototypes of survey** questionnaires addressed to tourists, destination residents, and the tourism industry, as well as **data collection methods**, were developed. These guidelines were used in the next stage of work, referred to as *Guidelines Testing in the Respective Destinations (Step 5)*.

The results obtained during the test phase of data collection among tourists, residents, and the industry were discussed at the *Workshop on Evaluation of the Applied Data Collection Guidelines, Data Analysis – Local* (October, 2024, **Step 6**). The final stage of the work was the preparation of recommendations for the *Guidelines on Data Collection – Polish Side (Step 7)*, based on the entire research process. The description of the work stages that led to the development of recommendations for the "*Guidelines on Data Collection*" is presented in relation to its three main parts:

- Diagnosis of Needs and Practices in Data Collection on Sustainable Tourism in Tourist Destinations
- Development and Testing of Prototypes for Data Collection Tools
- Recommendations for the "*Guidelines on Data Collection*".

6.1 DIAGNOSIS OF NEEDS AND PRACTICES IN DATA COLLECTION ON SUSTAINABLE TOURISM IN TOURISM DESTINATIONS

The diagnosis of needs regarding data collection on the state of tourism in tourist destinations began with *"Needs Analysis for Destinations Focused on Cultural Tourism"* (**Step 1**). Research on this topic was conducted at the turn of 2023/2024, involving 18 entities in Poland, including representatives of:

- Owners of tourist attractions
- Regional tourist organizations (DMO)
- Local tourism organizations (DMO)
- Tourism and recreation offices (by regional government)
- Tourism and recreation offices (by local government)
- Other – employees of tourist attractions and information points

The results were presented in the report *"Needs Analysis for Destinations Focused on Cultural Tourism"* (PowerPoint format, Zajadacz, Szał, 2024). The research results referred, among others, to the following issues:

"Which methods would you consider effective in terms of quantity, accuracy, reliability, and/or informational contribution? Please specify if you have any good practice which you are currently using or you know about" The obtained responses:

- Currently, we do not have the financial capacity to conduct this type of research. The most effective research should be conducted based on teleinformatics systems, providing real-time data.
- Data collected by individual facilities, entered into the system, and regularly transmitted.
- Tourist Information recording the number of visits, phone calls.
- Due to the nature of our organization, we do not collect data, unfortunately, neither does any organization at the municipal level.
- Direct interview plus postal code.
- Face-to-face interview, data from destination sites.
- Oral interview.

- There is no single method that will be effective and accurate.
- We consider the most important to be numerical data obtained from the local airport, GUS data, and information obtained from data warehouses (mobile applications).
- We consider cooperation with payment card operators.
- Daily cash reporting, data from mobile phones.
- Tourist counting sensors located in the field.
- Data from orders from websites, accounting data.
- Readings from mobile applications, payment cards, traditional individual questionnaire.
- PROT conducts cyclical surveys according to the developed methodology, which includes tourist traffic research and tourist image research, including tourist surveys (questionnaires with the support of interviewers), surveys of opinions found on the Internet, and image research through an online questionnaire (Podkarpacki Tourist Barometer). They are very useful. Due to lack of experience with other types of research, we cannot determine their effectiveness.

“Which criteria are relevant and important to you in regards to economic pillar of sustainability?” The obtained responses:

- Tourists' expenditures and seasonality.
- Employee salaries.
- Expenditure per tourist (determining profitability), occupancy of accommodation facilities, seasonality, satisfaction with HoReCa services.
- Analysis of preferences and purchasing power during the season and division by destination.
- Length of stay, expenditures.
- Seasonality and expenditures.
- Tourists' expenditures, contribution to GDP.
- Size of tourists' expenditures, seasonality, length of stay.
- Seasonality, increasing the number of days of stay.

- Seasonality, number of tourists.
- Amount of tourists' expenditures - both in relation to the main tourist product and ancillary services, seasonality in the context of infrastructure capacity, staff fluctuation.
- Tourists' expenditures, contribution to GDP.
- Number of tourists, tourists' expenditures, seasonality.
- Reviews posted by tourists on Google are significant. Another important element is tourists' participation in events.
- Lack of awareness among residents about their own city.
- Percentage of residents working in the tourism industry, sentiment of comments, residents' satisfaction.
- Each question should have confirmation - we do not know the answers from the business environment.
- Number of attractions based on regional values, involvement of local associations.
- Associations, companies involved in tourism.
- Participation in events and initiatives.
- Tourist and sightseeing activity of residents - getting to know their own region.
- Doxey's Irritation Index, number of events promoting local culture.
- Cooperation between entities. Local events, cooperating institutions.
- Increase in the number of associations and organizations dealing with tourism.
- Cooperation with residents, local authorities, education of children in schools, kindergartens.
- Involvement and support of local residents.
- Number of local associations and initiatives involved in tourism, participation in events and activities.
- Percentage of residents satisfied with the number of tourists, sentiment of comments on social media.

- All of the criteria mentioned are important.
- Energy saving, tourists using city/municipal bikes, maintaining cleanliness in public places.
- Air pollution, means of transportation to destinations.
- All are important - lack of confirmations, indicating a predatory economy towards museum resources.
- Emphasizing sustainable development.
- Additional transportation, traffic intensity.
- Preventing water level decline, low water levels in rivers, waste segregation, cleanliness of reception areas and natural areas, clean air.
- Percentage of enterprises with sustainability certificates.
- Rational administration.
- Eco-friendly attitude.
- Ensuring landscape protection, limiting development in the buffer zone of the National Park, shaping tourists' awareness that they are in the National Park area and should take special care of cleanliness, not littering, etc.
- Use of renewable energy sources in own operations, involvement of institutions in urban/regional bike path systems, city bikes, etc.
- Involvement of companies, organizations, and local governments in sustainable tourism development.
- Water consumption by tourists compared to residents (per person).

The needs diagnosis regarding data collection on tourism in destinations also included the analysis of *"Good Practices Collection. Examples of Good Practices in Destinations with Unique Cultural Values: Krakow, Warsaw, and Wielkopolska Voivodeship"* (**Step 2**). The results of the analysis were presented in the report titled *"Monitoring Tourist Traffic at the Regional and Local Level in Poland. Examples of Good Practices in Destinations with Unique Cultural Values"* (Zajadacz, 2024). The main conclusions included the following:

- The tourism monitoring system is diverse, depending on the specificity of the destination and the method of financing tourism-related research

(This, in turn, depends on the economic importance of tourism in the destination).

- Tourism research results are analyzed separately from analyses regarding the quality of life of residents or the state of the destination's natural environment. The data of these three pillars of sustainable development should be analyzed comprehensively.
- The main recommendation is to include information on the state of the natural environment and the socio-economic situation of residents in the current system for collecting data on tourist traffic.

The results obtained from Step 1 and Step 2 were presented and discussed during the project partners' meeting titled "*Development of Data Set, Questionnaire, and Data Collection Guidelines - Internal Project Workshop*," which took place in March 2024 in Korça, Albania (**Step 3**). The outcomes of this stage served as the basis for work related to *data collection issues, experience, and good practice sharing* during the meeting in Budapest (**Step 4**).

During this meeting in Budapest, the suggested methods of data collection and Guidelines were presented and discussed, and feedback was collected. The aim was to identify approaches and methods of data collection that would overcome practical issues and obstacles while aligning with the needs of destinations and the motivations of tourists, residents, and entrepreneurs. The main topics of discussion included: issues and obstacles, ways to overcome them, technical opportunities, residents' perceptions and contributions, communication, motivation, rewards, and intrinsic values. As a result, **prototypes of survey questionnaires** addressed to tourists, destination residents, and the tourism industry, as well as **data collection methods**, were developed.

6.2 DEVELOPMENT AND TESTING OF PROTOTYPES FOR DATA COLLECTION TOOLS

These guidelines were used in the next stage of work, referred to as *Guidelines Testing in the Respective Destinations* (**Step 5**). Based on the survey forms prepared within the project in English, local-language versions were created, along with an online version. Using the local-language survey forms, research was conducted during the summer season of 2024 among:

- Tourists (754 respondents)
- Residents of tourist destinations (254 respondents)
- Tourism industry and institutions (59 respondents).

Tourism enterprises and institutions were represented by representatives of entities such as: museums, galleries, local dining establishments, cultural institutions, ice rinks, roller rinks, inflatable amusement parks, nature conservation organizations, tourism education providers, entities offering sites for tourism and recreational purposes, tour operators, travel agencies, tourist attractions, opera and ballet companies, as well as institutions engaged in exhibition activities and the organization of educational, cultural, and tourism-related events.

No questions in any of the forms used raised any doubts. Respondents provided complete answers to all questions, considering the available options. The main feedback regarding the research methodology concerned the survey conducted among tourists. It was noted that the form is lengthy, which leads to reluctance in completing it. In the final version, it should be adjusted to include more concise questions.

The results obtained during the test phase of data collection among tourists, residents, and the industry were discussed at the *Workshop on Evaluation of the Applied Data Collection Guidelines, Data Analysis – Local (Step 6)*. Representatives from the tourism industry, institutions, and organizations shared their views on the relevance of the proposed survey forms as well as the methods used for conducting the research. The conclusions from the workshop were presented in the report: *Evaluation of the Applied Data Collection Guidelines, Data Analysis – Research Report* (Zajadacz, Szał, Sowa, 2024) and similar reports from other countries.

The detailed comments on the survey questionnaires addressed to residents of tourist destinations, tourists, and the tourism industry in the studied destinations, which were collected during the research, were used to validate these questionnaires. Based on the entire research process, the obtained results were also discussed during the Symposium on Sustainable Development in Business Programmes, 23-24 January 2025, Bournemouth, United Kingdom. A presentation titled '*Sustainable Tourism Monitoring System at the Local Level:*

Challenges and Recommendations' (Zajadacz, Sowa, 2025) was presented. It discussed the results of two related grants from the Visegrad Fund:

- *'UNESCO Sites – Balanced and Sustainable Tourism Development'* (Project No. 22120090)
- *'Data Collection Guidelines for Tourism and Sustainability Monitoring in Cultural Destinations'* (Project No. 22320140) to address the importance of monitoring tourism development in specific destinations."

Symposium gathered almost 50 participants from the UK, USA, Republic of South Africa, Germany, India, Italy, Tunisia, Netherlands, Brazil, Cyprus, Spain, Canada, Ireland, Portugal and Poland. They delivered total of 39 presentations. All venue was held on the campus of Bournemouth University. The symposium facilitated the expansion of knowledge on the research issues addressed in the projects, and it was also an excellent opportunity to present and promote the results obtained from the projects within a broad, international group of researchers and practitioners focused on sustainable development issues.

6.3 RECOMMENDATIONS FOR THE “GUIDELINES ON DATA COLLECTION”

The final stage of the work involved developing recommendations for the **Guidelines on Data Collection (Step 7)**, based on the entire research process.

The conclusions outlined in reports on **methods for collecting tourism-related data in destinations**, can be distilled into key principles:

- **Purposefulness and transparency**
 - Respondents should understand the purpose of data collection and identify with it, which increases their engagement.
 - Avoiding technical jargon and using simple language in forms.
- **Formalization and interpersonal relations**
 - When collaborating with institutions regularly, it is beneficial to formalize the data collection process.
 - Building good relationships with individuals responsible for providing data is crucial.

- **Comfort and the right timing**

- Ensuring a friendly atmosphere and a comfortable space for completing surveys.
- Reaching out to respondents at the right time (e.g., when they are well-rested and not in a hurry).

- **Motivating participation in research**

- Material incentives: discounts, free attractions, small gifts.
- Non-material benefits: exclusive information, priority access to tickets.
- Gamification elements: e.g., statistics showing survey responses collected by region.
- A clear explanation of the importance of participation in the study, avoiding empty slogans.

- **Sources and research tools**

- Using various data sources, such as statistical reports, mobile phone data, and payment card user behavior.
- Standardizing the scope and format of collected data to facilitate analysis.

- **Practical application**

- Collaboration between researchers and practitioners to identify key, useful data.
- Collecting information that has real significance for tourism management.

The **feedback on the three survey forms**, used as primary tools for gathering opinions from tourists, residents, and business representatives, was presented in the section on survey form testing. The main principles for formulating questions in surveys include:

1. **Clarity:** Questions should be clear and easy to understand to avoid confusion or misinterpretation.

2. **Relevance:** Each question should be directly related to the survey's objective and contribute to gathering meaningful data.
3. **Neutrality:** Questions should be neutral and not lead the respondent towards a particular answer or opinion.
4. **Brevity:** Keep questions concise and to the point, avoiding unnecessary complexity or jargon.
5. **Specificity:** Questions should be specific enough to gather precise information without being overly broad or vague.
6. **Question order:** Place questions in a logical sequence, starting from general to specific topics, and group related questions together.
7. **Pretesting:** Always pretest your survey to identify potential issues with question wording or structure before distributing it to a larger audience.

In many tourist destinations, as demonstrated by the analysis of best practices presented in the report *Monitoring Tourist Traffic at the Regional and Local Level in Poland. Examples of Good Practices in Destinations with Unique Cultural Values* (Zajadacz, 2024), there is a system for monitoring tourism and sustainable development. Conducting such research in tourist destinations depends on the economic impact of tourism on the socio-economic development of the area, as well as on experiences with the negative effects of tourism growth, referred to as overtourism. Furthermore, it is influenced by the established traditions of organizing and funding this type of research. New proposals related to monitoring sustainable tourism should take these factors into account. This requires approval from the institutions conducting such research, so that the new guidelines can naturally integrate into the system for monitoring sustainable tourism.

To better organize the Sustainable Tourism Monitoring System, it is also important to focus on the integration of data from different areas, including currently available tourism data, residents' quality of life, and environmental conditions. Combined reporting will enable better identification of relationships between tourist traffic, residents' well-being, and environmental conditions.

6.4 EXAMPLE OF FEEDBACK

The testing phase brought an important insight into the understanding of the questions. Most of the reactions were taken into account and the questions were changed. Here are examples of the feedback from Albania. The feedback can be also taken as inspiration and recommendation for any changes and customizations of the questionnaires.

6.4.1 Residents

General Problems with the Questionnaire

Participants did not provide for specific questions but highlighted general difficulties in fulfilling the questionnaire, which included:

- Some residents claimed to lose focus or interest due to the length of the questionnaire, leading to incomplete or rushed responses.
- Engaged participants did not have enough time to complete the questionnaire in one sitting.
- Long questionnaires may be more difficult to complete on smaller screens, leading to difficulty navigating the page.
- Most of the responses to descriptive questions (open-ended) are difficult for the residents.
- "How can the local government better contribute to tourism development?"
- "What does the local government do well concerning tourism?"
- "What do you consider to be the most important challenge for the development of tourism within your municipality?"
- "How do you imagine the development of tourism in your country, is it something that should be considered in the next five years?"
- Participants provided minimal answers that lacked depth or detail.
- They expressed difficulty in addressing complex issues: Infrastructure development, pricing policies, and labor shortages are systemic challenges that require long-term planning and investment.

Suggestions consists of:

- Reducing the length of questionnaire

- Rephrasing open-ended questions: Instead of "What do you consider to be the most important challenge for the development of tourism within your municipality?", into specific aspects such as "What are the biggest challenges in infrastructure for tourism?" or "What are the biggest challenges in promoting tourism?"
- Clarification of open-ended questions: Instead of "How do you imagine the development of tourism in your country, is it something that should be considered in the next five years?" make it more focused: "How has tourism changed in your city in the last five years?"
- The conduction of another survey about the participants' feedback on their experience about completing the questionnaire, including any difficulties they encountered, and adapt the questionnaire as needed.
- It would be of relevance to conduct additional surveys to address concerns about overcrowding, environmental sustainability, and the preservation of local traditions, helping to balance the needs of both residents and tourists.

6.4.2 Business representatives

The comments contributed to the final version of the questionnaires:

- Clarification on the purpose of completing the questionnaire, consent to completing the questionnaire, and preservation of data privacy, which is a condition for the implementation of the study by EU countries.
- In general, there is a lack of data collection culture among businesses.
- Survey participants were not very clear about the reason for data collection.
- In general, businesses did not have data on the activity of DMOs.
- Answers to open-ended questions are generally short
- The number of closed questions should be increased, also based on models that can be easily processed through programs such as SPSS or R program.
- Should be added questions that are more related to sustainable tourism development

Recommendations:

- Greater collaboration between DMO and businesses for data collection
- Support and assistance from tourism experts for the creation of a data collection strategy
- Data collection for businesses will contribute to improving the quality of services and at the same time increasing the number of tourists.

6.4.3 Observations

As was also found from the survey conducted for data collection within the framework of this project, the community, businesses but also tourists have a low interest in providing information. In this regard, it should be emphasized the purpose and importance of the survey being conducted and that the data collected helps in the best possible development of the destination.

Regarding the survey process, we believe that the role of the surveyors or those who will be involved in conducting the survey is essential, so before the survey is undertaken, there should be a short training of the persons who will be involved.

From the observation, many tourists or businesses refused to respond at the moment the survey was to be completed, so here too, care must be taken in the communication part and finding the appropriate time to collect information. Questionnaires should be neither short nor too long, with clear and precise questions, because it often happens that the answers to the following questions are omitted.

7 QUESTIONNAIRES

This chapter presents the questionnaires for three groups of stakeholders in the destination – tourists, locals (residents), and entrepreneurs. Each of this group has own aims

7.1 TOURISTS

Dear Visitor,

Tourism plays an important role in our homeplace, and your experience as a visitor is very important to us. We kindly invite you to share your thoughts, impressions, and any concerns regarding the development of tourism here.

Your feedback helps us improve and create a more enjoyable and sustainable destination for all.

I. General data.

1. What is your nationality?

2. What is your gender?

a) Male

b) Female

c) Other

d) Do not wish to answer

3. What is your age?

a) 18-25 years old

b) 26-35 years old

c) 36-45 years old

d) 46-55 years old

e) 56-65 years old

f) Over 65 years old

4. Have you visited this place before?

- a. No, this is the first time
- b. Once
- c. 2 or 3 times
- d. 4-5 times
- e. regular visitor

5. How many days are you going to stay/have you stayed at this destination on the trip?

- a) Enter number
- b) Don't know

6. What is your main purpose of your trip?

- a) Business reasons
- b) Personal reasons
 - a. Visiting friends and relatives
 - b. Vacation/holidays
 - c. Study trip
 - d. City break
 - e. Tour pilgrimage
 - f. Other (Please specify)

7. What means of transport did you use to reach(destination name)?

- a) Private car
- b) Taxi /Bolt /Uber and similar

- c) Flight
- d) Bus/Coach
- e) Train
- f) Rental car
- g) River Cruise Ship
- h) Sea Cruise Ship
- i) Other (please specify)

8. Who do you travel with?

- a. Alone
- b. With family or group of families (with children under 15 years)
- c. Friends and relatives (adults and children above 15 years)
- d. Partner (couple, no children)
- e. Colleagues, business partners
- f. A larger group of other tourists (with a travel agency)
- g. Diverse group

9. How was this holiday /trip organised?

- a. I organised the visit myself
- b. Somebody organized it for me
 - a. I have used the services of a local travel agency (in the country)
 - b. I have used the services of a tour operator in my country
 - c. I have used the services of a travel portal or social media entities
 - d. My employer organised the visit

10. Where did you find information for visiting the destination?

- a. searching the net

- b. social media
- c. some friends and relatives told me about it
- d. in the tourist agencies
- e. work or school
- f. press, newspapers, magazines,
- g. TV
- h. hotel, accommodation
- i. own previous experience
- j. Tourist information centre
- k. Facebook
- l. Instagram
- m. Other social network
- n. Youtube
- o. Blog
- p. Google Maps
- q. Other (please specify)

II. Visitors /tourists' opinions about the destination

1. What comes to your mind when thinking about the destination?

.....

2. What are the main reasons for visiting this destination?

- a. visiting the cultural heritage objects
- b. enjoying nature
- c. for nightlife
- d. enjoying the food and beverages
- e. visiting rural areas around the city

- f. business trip
- g. visiting cultural and sport events
- h. visiting religious objects and sites
- i. social life and entertainment
- j. friendly atmosphere, hospitality of local people
- k. other (please specify)

3. Did you visit the museums and other cultural sites?

- a. Yes
- b. No

4. List 3-5 of the most liked attractions you visited or saw in the destination?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

5. What is the cost per person that you paid or plan to pay?

- a. Accommodation (if applicable)
- b. Food, restaurants
- c. Entertainment, Museums, Castles
- d. Goods and souvenirs

6. How do you agree with these statements: (1- completely agree, 2- rather agree, 3- neutral perception, 4- rather disagree, 5- strongly disagree, 6- I don't know, I can't judge)

- a. There is nothing that I miss in this destination in terms of the services provided.

- b. I have nothing to complain about in terms of quality of the services provided in the destination.
- c. The number of visitors to the site is acceptable
- d. The price level in the destination is acceptable.
- e. I have nothing to complain about the local transport facilities.

7. On a scale of 1 to 5, how satisfied are you with your stay?

Very unsatisfied 1 2 3 4 5 Very satisfied

8. Do you plan to visit this place again?

Yes, absolutely 1 2 3 4 5 Definitely not

9. On a scale of 1 to 10, how likely are you to recommend visiting this destination to other potential tourists? (1 – I definitely do not recommend, 10 – I absolutely recommend)

1 2 3 4 5 6 7 8 9 10

10. On a scale of 1 to 5, what is your perception of your city/town? How do you perceive the destination?

Overcrowded	1	2	3	4	5	Almost empty
Dangerous	1	2	3	4	5	Safe
Noisy	1	2	3	4	5	Quiet
Commercial	1	2	3	4	5	Authentic

11. Which attraction or experience did you like the most?

.....

7.2 LOCALS /RESIDENTS

Dear Residents,

Tourism plays an important role in your town; however, your satisfaction matters to us. We would sincerely like you to share with us your feelings, concerns, and perceptions about tourism development.

We value every experience and response.

The questions concern your place of residence

1. How do you perceive your municipality/town?

Overcrowded	1 -- 2 -- 3 -- 4 -- 5	Almost empty
Dangerous	1 -- 2 -- 3 -- 4 -- 5	Safe
Noisy	1 -- 2 -- 3 -- 4 -- 5	Quiet
Commercial	1 -- 2 -- 3 -- 4 -- 5	Authentic

2. Are you generally satisfied with the level of tourism development in your place of residence?

- Yes
- No

3. To what level do you agree with these statements?

a) traffic intensity increased due to tourism and causes problems to locals

Don't agree at all 1 -- 2 -- 3 -- 4 -- 5 Fully agree

b) tourism causes serious issues with parking for locals

Don't agree at all 1 -- 2 -- 3 -- 4 -- 5 Fully agree

If you agree, please specify the problems

.....

4. How do you perceive the impact of tourism in your place on these facts?

facts	very negative 1	rather negative 2	doesn't have any impact 3	rather positive 4	very positive 5	I have no opinion
the cost of living in the city						
residents' incomes						
Impact on employment						
income generation for local communities						
investments in restaurants, hotels and shops (new construction, renovation)						
opportunity for entertainment and recreation						
the quality of public services (transport, library, ...)						
the maintenance of historical and cultural monuments						

local culture and crafts						
contact with different cultures and foreigners						
the self-esteem of the local population						
crime						
the preservation of customs and traditions of the local population						
the quality of life of local residents						
noise						
the amount of garbage						

5. How would you evaluate the level of your engagement in civic activities supporting sustainable and responsible tourism?

Very low

1 -- 2 -- 3 -- 4 -- 5

Very high

6. How often do you contribute to promote our destination?

a) Daily

b) Several times a month

c) Once a month

d) Less frequently

e) Never

In which way do you promote it?

.....

7. How frequently do you utilize tourism services within your municipality, specifically services such as cafes and restaurants, museum and gallery services, taxi services, sports facilities services, wellness facilities, aquatic centres, theatres, cinemas, Tourist Information Centers (TIC), etc.?

services	Daily	Several times a week	Several times a month	several times a year	Never
cafes and restaurants					
museum and galery					
cinemas					
taxi					
sport, wellness, aquatic centers					
Tourist Information Centers (TIC)					

8. To what extent do you base your voting decisions in local council elections on the individual candidates' plans for tourism development in your municipality?

Not at all 1 -- 2 -- 3 -- 4 – 5 Completely

9. To what extent are you engaged as a civic activist aiming to improve the functioning of your municipality with regard to environmental conservation, sustainable development, protection of cultural heritage, etc.?

Not at all 1 -- 2 -- 3 -- 4 – 5 Extensively

10. To what extent/how often do you endeavor to positively influence family members, friends, and acquaintances living outside the municipality to visit as tourists?

Rarely 1 -- 2 -- 3 -- 4 – 5 Always

11. Would you consider yourself as someone who positively influences the atmosphere in the destination with the aim of enhancing visitors' experience of visiting your municipality?

Strongly disagree 1 -- 2 -- 3 -- 4 – 5 Strongly agree

12. How often do you provide information to visitors of the municipality (such as giving directions, recommending a good restaurant, etc.) if politely asked for it?

Never 1 -- 2 -- 3 -- 4 – 5 Always

13. How do you perceive tourism development within the municipality from the perspective of being a resident?

- a. There could be more tourists
- b. There are just enough of them.
- c. There could be a little less of tourists.
- d. There should be far fewer of them (if at all).

14. What do the local government, DMO and other institutions do well in relation to tourism?

15. What could the local government, DMO and other institutions do better in relation to tourism?

16. What do you consider to be the most significant challenge to address in the development of tourism within the municipality?

17. Do you work in a tourism enterprise or facility within the municipality where you reside?

Yes

No

18. Do you engage in tourism entrepreneurship (either in a tourism enterprise or facility) within the municipality where you reside?

Yes

No

19. What impact does tourism have on your life?

negative

1 -- 2 -- 3 -- 4 -- 5

positive

20. How do you imagine the development of tourism in your place of residence in the future, is there something that is a matter of concern (in 5 years)?

21. Respondent characteristics

Age:

18-24

25-34

35-44

45-54

55 – 64

65+

Sex:

Woman

Man

Other

I prefer not to give it

Education:

basic

professional

medium

higher

Apart from inquiry the municipalities can organize meetings with local inhabitants. Or treat it as an additional “database”. Meeting with people gives possibility of problem analysis, finding much more detailed perspective of the impact of tourism on the quality and level of life in local community.

If a problem threatens to exceed acceptable limits, it is worth taking into consideration the preparation of more detailed inquiry focusing on specific problems or a group of inhabitants. In this way respondents can describe better the situation of their municipality.

7.3 ENTREPRENEURS

Dear business operators/entrepreneurs,

We are pleased to invite you to participate in this survey, which aims to assess opinions regarding tourism development in our destination. To understand your perspective is important for the Destination management organisation (DMO, responsible for promotion and management of tourism) and relevant municipality departments and their decisions.

Your opinions are important, and we truly value your time and contribution.

1. Entity name _____ (optional)

2. What is the field of your business?

- Hotels

- Restaurants
- Tourists /Tour guide, Tour leader
- Event company
- Tourists' attraction
- Travel agencies
- Souvenir shops
- Cultural workshop facilitator
- Other

3. Are you satisfied with the level of tourism development in the area where you operate your business?

- Yes
- No

4. How often do you contribute to promote the destination (on own or other channels)?

- Daily
- Several times a month
- Once a month
- Rarely
- Never

5. On the scale from 1 to 5, please indicate how important the following aspects are for your business (1 – not important, 2 – slightly important, 3 – don't know, 4 – important, 5 – very important).

- | | |
|------------------------------------|----------------------|
| • Environmental protection | 1 -- 2 -- 3 -- 4 – 5 |
| • Preservation of traditions | 1 -- 2 -- 3 -- 4 – 5 |
| • Protection of cultural monuments | 1 -- 2 -- 3 -- 4 – 5 |

- Support and use of local cultural products 1 -- 2 -- 3 -- 4 – 5
- Supporting sustainable tourism practices 1 -- 2 -- 3 -- 4 – 5
- Infrastructure development 1 -- 2 -- 3 -- 4 – 5
- Integration of innovations and technology 1 -- 2 -- 3 -- 4 – 5

6. How do you perceive the development of tourism within the municipality from the perspective of being an entrepreneur/manager?

- There should be more tourists
- There are enough tourists
- There could be fewer tourists
- There should be a lot fewer tourists

7. What do you consider to be the most important opportunity for tourism development within the destination?

8. What do you consider to be the most significant challenge/threat facing tourism development within the destination?

9. Is your business a member of the Destination Management Organization (DMO, name of the organisation if possible) or similar tourism institution?

- No, we do not consider it
- No, but we consider it
- Yes
- There is no such organization in my area, or I am not aware of its existence

10. Do you believe that the DMO or other management institutions can help you succeed in the market?

- Yes
- Maybe yes
- I do not know
- Rather no
- Definitely not

11. Please specify in what ways the assistance from DMOs/management institutions contributes to your success in the market:

- Promotion of our services and activities on the websites and social media of the DMOs
- Continuous updating of destination activities and event through email lists (newsletters)
- Regular organization of meetings between DMOs and entrepreneurs for consultations
- Gathering feedback from service providers in the city/municipality to improve mutual communication
- Trainings and workshops to improve the quality of services
- Opportunities to connect/communicate with other tourism businesses
- Opportunities to access market and consumer trends
- Cooperation in marketing markets
- Organising Fam trips, events
- Assistance with sustainable tourism practices
- Other

12. Have you undertaken any of your own statistics about your customers?

- Yes
- No

13. Would you like to share the results of your observations/surveys with the DMO to improve destination management?

- Yes
- No

14. From 1 to 3 (1 – Not at all, 2 – Partially, 3 – Completely), please indicate how well your business meets the services for:

- | | |
|---|-------------|
| • Business travellers | 1 -- 2 -- 3 |
| • Families with children | 1 -- 2 -- 3 |
| • Elderly people | 1 -- 2 -- 3 |
| • Cyclists | 1 -- 2 -- 3 |
| • Ecological travelers (eco-tourists) | 1 -- 2 -- 3 |
| • Travelers with pets | 1 -- 2 -- 3 |
| • Travelers with dietary needs (individuals with food intolerances, allergies, vegetarians, etc.) | 1 -- 2 -- 3 |
| • People with mobility impairments | 1 -- 2 -- 3 |
| • People with visual impairments | 1 -- 2 -- 3 |
| • People with hearing impairments | 1 -- 2 -- 3 |
| • LGBT community | 1 -- 2 -- 3 |
| • Other | 1 -- 2 -- 3 |

15. Do you have any social, environmental, or other certifications, awards, or graphical elements identifying the quality of your services?

- No
- Yes, please specify

16. Express yourself freely about the observations you have made about the development of tourism in the destination and the work of DMOs/Managing Institutions.

8 TECHNICAL SOURCES OF DATA

Technical methods of data collection are a great option nowadays. It allows getting the information without bothering the tourists or anybody. The system counts, collects, monitors and gives information itself. However, many of them are quite expensive, e.g. residual mobile data tracking, and delivered as a service, in some cases the investments are needed (e.g. counters). Or some other methods need an expertise (e.g. Google analytics). This chapter is divided into three phases of the tourist's journey: pre-stay (planning, booking, ...), during the stay (on site) and post stay (sharing, reviews,...). Special chapters are dedicated to social listening and Google tools.

8.1 PRE-STAY DATA COLLECTION OPTIONS

Modern tourism destinations leverage advanced technical tools to gather critical insights during the pre-stay phase, encompassing planning, booking, and preparatory stages. This proactive data collection enables destinations to optimize marketing strategies, personalize visitor experiences, and forecast demand patterns. Three primary methodologies dominate this phase: website analytics via GA4, social listening platforms, and mobile application ecosystems. Each approach provides unique datasets that, when integrated, form a comprehensive understanding of potential visitor behavior and preferences.

8.1.1 Website visitor analysis and conversion tracking

- Audience segmentation and behavioural analysis

GA4's audience builder allows destinations to create cohorts based on demographics, device types, or referral sources. A Mediterranean destination might segment users from cold climates searching for "winter sun vacations," then analyse their journey from blog posts to booking pages. By monitoring the percentage of new visitors, destinations gauge brand awareness campaigns' reach. A sudden 15% increase in new users from Germany, for example, could correlate with a targeted ad campaign in Frankfurt.

- Conversion rate optimization

Google Analytics 4 (GA4) serves as the foundational tool for monitoring digital engagement during the pre-stay phase. By defining key events-such as newsletter sign-ups, brochure downloads, or booking confirmations-destinations can calculate session key event rates (percentage of sessions with conversions) and user key event rates (percentage of users completing actions). For instance, a destination targeting cultural travelers might track conversions for heritage tour bookings, using the formula:

$$\text{Session Key Event Rate} = \text{Sessions with Tour Bookings} / \text{Total Sessions} \times 100$$

This metric reveals campaign effectiveness, and moreover, GA4 explores and visualize funnel drop-offs and attribution paths.

- Predictive analytics and benchmarking

Advanced GA4 features enable predictive metrics like purchase probability and churn risk, derived from machine learning models. A cultural destination could use these to identify high-intent users early, triggering personalized email offers for museum entrance tickets or theatre performances. Cross-domain tracking further illuminates how users interact with partner sites (e.g., airlines, activity providers), mapping the full planning ecosystem.

8.1.2 Social listening and Sentiment analysis

- Monitoring brand perception across platforms

Social listening tools scan platforms like Instagram, TripAdvisor, and niche forums to extract unstructured data about destination perceptions. The sentiment analysis algorithms in tools like Brandwatch or Talkwalker categorize mentions as positive, neutral, or negative. For example, a surge in #OvercrowdedBarcelona tweets could prompt a city to adjust its pre-stay messaging about off-peak attractions.

- Identifying trends and campaign adjustments

During a festival pre-promotion phase, social listening might reveal unexpected interest in vegan dining options. Destinations can rapidly update website content and partner with relevant restaurants, capitalizing on the trend. Tools also track

competitor mentions. If a social listening tools gives a warning, the hotels can make a real-time price adjustments or bundle offers can be deployed.

- Crisis management and reputation safeguarding

A 2024 case study showed how Vienna's tourist board used social listening to detect a viral complaint about museum queues. By immediately addressing the issue through a pre-stay email campaign promoting timed-entry tickets, they reduced onsite congestion by 22%.

8.1.3 Mobile applications

Leading destinations deploy apps during the planning phase with augmented reality previews of hotels and AI-driven itineraries. The Linz City App, for instance, lets users "scan" their kitchen to receive recipe suggestions based on local cuisine, driving pre-arrival excitement. Gamification elements like unlocking virtual badges for sharing trip plans on social media increase download rates and enables tracking the visitors before arrival. Frequency of "family-friendly attractions" queries indicates demand for child-focused content. It also brings upsell opportunities. It must be mentioned that applications cost not only the creation but it requires also marketing communication investments, maintenance and in case they allow communication it will create a need for a person communicating on the DMO's side.

By mastering these technical avenues, destinations transform pre-stay interactions into rich data assets, setting the stage for optimized onsite operations and sustained post-visit engagement.

8.2 ON SITE, DURING THE STAY

During a visitor's stay in a tourism destination, collecting accurate, real-time data is essential for managing flows, optimizing services, and enhancing the overall experience. The following technical tools and systems are widely used to gather actionable insights about visitor behaviour, mobility, and consumption patterns.

8.2.1 People counting systems

Tourist counters are using infrared sensors, thermal cameras, or AI-powered video analytics, which are installed at entrances, exits, and key points within attractions, museums, parks, and city centers. These devices automatically record the number of visitors entering or exiting, providing precise data on foot traffic and visitor flow patterns. Modern systems, such as wireless people counting sensors, are easy to install, require minimal maintenance, and can operate outdoors with weather protection. Real-time data enables destination managers to:

- Monitor occupancy and manage crowd peaks
- Identify high-density zones and potential congestion
- Adjust staffing and opening hours based on demand
- Evaluate the effectiveness of events or promotional activities
- Justify decisions and communicate transparently with the public

Estimated cost: 80–200 Euros per device, depending on features and technology. The total costs depend the size of the monitored area. The expert analysis also requires knowledge and mastering the analytical tools.

8.2.2 Intelligent traffic monitoring systems

Managing traffic is crucial, especially in popular tourist areas prone to congestion. Intelligent transportation systems (ITS) integrate cameras, road sensors, and GPS technology to track vehicle flow, monitor congestion, and assess parking availability in real time. Sensors and cameras collect data on vehicle counts, speeds, and congestion points, supporting dynamic traffic management and route optimization. CCTV and AI-based monitoring can detect accidents or hazardous situations, triggering rapid responses, this can increase the safety of the city or quarter and increase the night life. ITS can disseminate real-time information to tourists via apps or digital signage, including public transport schedules, road closures, or alternative routes.

These systems not only improve visitor experience but also support environmental sustainability by reducing unnecessary driving and emissions.

8.2.3 Mobile tracking technologies

Mobile device tracking leverages GPS and Wi-Fi/Bluetooth signals from visitors' smartphones (with consent) to anonymously monitor movement patterns within destinations. Specialized apps can:

- Track visitor flows between attractions, shops, and restaurants
- Identify popular routes, dwell times, and bottlenecks
- Send location-based alerts or recommendations to enhance the visitor experience
- Support safety by alerting users and authorities to risks or incidents

Data collected via mobile tracking is invaluable for optimizing signage, planning infrastructure, and tailoring services to actual visitor behaviour.

To obtain information from mobile signal providers, and to fully use this tool, it is necessary to engage an external company. This full information service is therefor used mostly for special occasions or once in a long time.

8.3 POST STAY ANALYSIS

8.3.1 Instagram

Instagram is a valuable source for creating heat maps that visualize where and how intensely users engage with specific geographic locations, especially in the context of tourism. Heat maps generated from Instagram data can reveal visitor hotspots, movement patterns, and the popularity of attractions, providing actionable insights for destination managers and marketers.

Instagram allows users to tag their posts with specific locations, embedding geographic metadata (latitude and longitude) into each public, geo-tagged photo or video. By collecting and aggregating these geo-tagged posts, analysts can identify where users are most frequently posting content within a city, region, or attraction. This process typically involves:

- Identifying relevant location tags: Each Instagram location has a unique identifier (Location-ID). Analysts can query posts by keywords, hashtags, or directly by these Location-IDs to gather all posts associated with a particular place (e.g., Eiffel Tower).

- Data collection: Using web-scraping techniques or Instagram's own Explore page, recent posts with location tags are collected. The dataset may include timestamps, user IDs (anonymized), and the exact location.
- Data processing: Posts are aggregated by location and time, and density estimation techniques are applied to visualize concentrations of activity. Areas with more posts appear as "hotter" zones on the map.
- Visualization: The processed data is displayed on a map, with colour gradients indicating the intensity of Instagram activity in different areas. This can be done using GIS software or specialized visualization tools.

While Instagram's map is primarily for user exploration and planning, it reflects real-time trends in content creation and can be used by marketers for inspiration and preliminary analysis.

8.3.2 TripAdvisor

A Destination Management Organization (DMO) can use TripAdvisor as a valuable source of data by systematically analyzing visitor reviews and ratings to gain insights into traveler satisfaction and preferences. By monitoring the content and sentiment of reviews for attractions, accommodations, and restaurants, the DMO can identify recurring strengths and weaknesses across the destination. This feedback helps pinpoint areas needing improvement, such as customer service or facility maintenance, and highlights what visitors appreciate most, which can be emphasized in marketing materials. Additionally, tracking changes in ratings and review volume over time allows the DMO to measure the impact of new initiatives or events on visitor perception.

Beyond individual business analysis, TripAdvisor data enables DMOs to benchmark their destination's performance against competitors by comparing overall ratings, review counts, and popularity rankings. This competitive intelligence supports strategic planning and helps prioritize investments in infrastructure or services. By ensuring that all local tourism businesses have complete and up-to-date listings, the DMO also improves the destination's visibility on the platform, making it easier for potential visitors to discover and plan their trips. In summary, TripAdvisor serves as both a real-time feedback channel and a benchmarking tool, supporting data-driven decision-making for destination development and promotion.

8.4 SOCIAL LISTENING

Social listening was mentioned the previous division, however, deserve more attention. Social listening is a powerful tool for tourism destinations and businesses, enabling them to systematically monitor, collect, and analyse publicly available content from social media platforms, forums, blogs, reviews, photos, and videos. The process involves several technical steps: first, social media sites and apps are scanned (crawling); then, relevant conversations are collected based on set criteria such as demographics or geography (scraping); finally, the data is stored (indexing) for further analysis. Modern social listening tools, such as SentiOne, allow users to set specific keywords and exclude irrelevant mentions, providing a more accurate and actionable overview of what is being said, by whom, when, and how often.

Social listening offers a wide range of strategic benefits for tourism businesses:

- **Trend identification:** It helps detect current trends, popular topics, and relevant conversations in the industry, allowing destinations to adapt their marketing and product offerings.
- **Sentiment analysis:** By analysing the tone of online mentions, businesses can monitor attitudes toward their brand or specific products, identifying both positive feedback and emerging issues.
- **Customer insights:** Frequently asked questions, recurring complaints, and popular requests can guide improvements in customer service and product development.
- **Competitive analysis:** Social listening enables benchmarking against competitors, revealing their strengths, weaknesses, and campaign performance.
- **Community and influencer engagement:** It helps identify key influencers and active community members, opening opportunities for partnerships and community building.
- **Campaign evaluation:** Real-time feedback on marketing campaigns allows for rapid adjustments and measurement of campaign success.

- Crisis and reputation management: Immediate alerts for negative mentions enable quick responses, minimizing reputational damage and supporting effective crisis management.
- Sales and loyalty opportunities: Social listening reveals sales opportunities, supports customer retention, and helps build brand loyalty by showing customers that their feedback is valued. Immediate reaction to the comments, questions and queries creates the relationships.

8.4.1 Key social media monitoring metrics

Social media monitoring metrics can be grouped into four main categories: awareness, engagement, conversion, and customer satisfaction. Each category contains specific indicators that provide actionable insights for tourism marketers.

1. Awareness metrics

- Brand mentions: the number of times a brand is referenced, both directly (e.g., @brand) and indirectly.
- Audience growth rate: the speed at which a brand's social media following increases.
- Impressions and reach: impressions count how many times content is displayed, while reach measures how many unique users see the content.
- Post reach: the percentage of followers who see a specific post.
- Potential reach: the estimated number of users who could realistically see a post, factoring in shares by followers.
- Share of voice (SOV): the proportion of brand mentions compared to competitors in the industry, indicating brand visibility and market presence.
- Follower growth rate: tracks how quickly the brand's audience is expanding over time.

2. Engagement metrics

- Likes, shares, comments: basic indicators of how users interact with content.

- Engagement rate: the ratio of total interactions (likes, shares, comments, clicks) to the number of followers or reach, showing how compelling content is.
- Applause rate: the number of positive reactions (likes, favorites) per follower.
- Amplification rate: the ratio of shares to total followers, reflecting how willing the audience is to spread the brand's message.
- Virality rate: the percentage of viewers who share the content, relative to total impressions.
- Reaction rate: measures the proportion of positive responses to content.

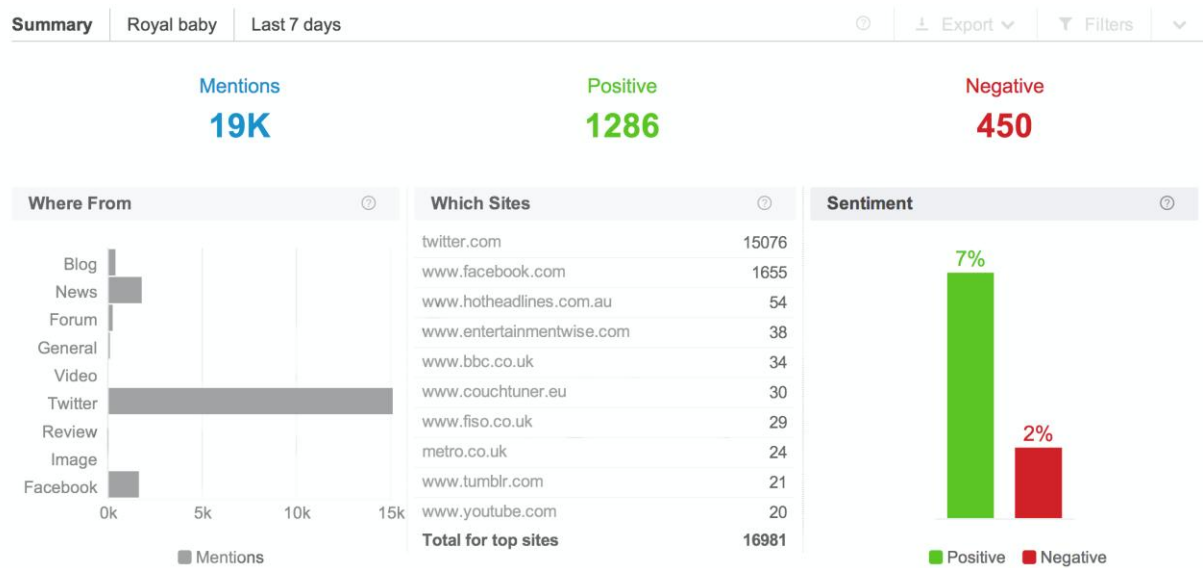
3. Conversion metrics

- Conversion rate: the percentage of users who take a desired action (e.g., booking, registration) after engaging with social media content.
- Click-through rate (CTR): the ratio of users who click on links in posts to the total number of viewers.
- Bounce rate: the percentage of users who visit a linked page but leave without further interaction.
- Leads or bookings attributed to social media: tracks how many bookings or inquiries originate from social channels.
- Conversation rate: the number of comments per post relative to followers, indicating willingness to engage in dialogue.

4. Customer satisfaction metrics

- Consumer testimonials: reviews, ratings, and endorsements provided by customers.
- Customer satisfaction score (CSAT): direct feedback from customers, often rated on a scale.
- Brand sentiment trends: tracks changes in positive, neutral, and negative mentions over time.

Figure 3: Sentiment analysis



Source: Brandwatch.com

- Active community members: identifies how many followers are regularly engaging with the brand.

-

8.4.2 Practical considerations and limitations

While social listening provides valuable real-time insights and supports data-driven decision-making, it is not without challenges. Sentiment analysis algorithms may misinterpret irony or ambiguous language, and not all relevant conversations are publicly accessible (e.g., private groups). The accuracy of results depends on the careful selection of keywords and regular manual review. Additionally, the choice of social listening tool matters; advanced tools offer better filtering, reporting, and export options but may require investment.

It is important to test the tool during the free period and even try more as the results may differ significantly due to different methodology, scraping algorithms and main focus of the tool.

8.5 GOOGLE TOOLS

Modern tourism destinations face the dual challenge of anticipating traveler preferences while optimizing operational strategies. Google's suite of analytical tools provides a robust framework for destinations to collect granular data, identify emerging trends, and make evidence-based decisions. These platforms range from real-time demand tracking to predictive modeling, enabling stakeholders to navigate seasonal fluctuations, manage overtourism, and align offerings with evolving traveler expectations. Below, we explore eight critical Google tools reshaping destination management.

- Destination Insights with Google: Real-Time Demand Analytics¹

This platform aggregates anonymized search data to map global travel demand patterns, offering daily updates on inbound/outbound interest. Tracks origin-destination flows at country, regional, and city levels, identifies destinations with $\geq 75\%$ MoM demand increases using a color-coded scale, and ranks locations by accommodation and flight search volumes relative to competitors.

This information can be used for overtourism mitigation or infrastructure planning. A Mediterranean island used declining "beach resort" searches (-32% YoY) to pivot marketing toward cultural heritage trails, reducing peak-season congestion by 19%. Vienna's tourism board correlated 45% growth in family-focused queries with investments in stroller-friendly museum pathways (Google, 2025).

- Travel Analytics Center (TAC): Airline and Accommodation Intelligence

Flights demand explorer analyses YoY changes in city-pair demand (e.g., Dubai-Prague queries +112% in Q2 2024), enabling airlines to adjust capacity, hotels to improve the revenue management and destinations to plan seasonal measures to optimize the tourists flow. Analysis of the booking window can help with timing optimisation of the marketing campaigns. Stay duration trends can help offer the right and attractive product and program to the right customers. Brand Insights measure brand search penetration.

¹ https://destinationinsights.withgoogle.com/intl/en_ALL/

- Google Trends & Data Studio

Query volume analysis tracks keyword popularity (e.g., "geocaching in Prague") to predict niche tourism growth. Sicily's tourism board identified "open-air museums" as a recovery driver (searches +84% vs. 2019), leading to curated hiking itineraries that captured 23% of Italy's 2024 cultural tourism spend². This tool is also useful for forecasting and visualization.

- Google Analytics 4 (GA4)

Google Analytics 4 (GA4) provides a comprehensive suite of metrics and reports that help tourism destinations understand visitor behaviour, optimize digital experiences, and make data-driven decisions. Key metrics include:

- Users, which shows the number of unique individuals interacting with your site or app,
- Sessions, which tracks the number of distinct visits.
- Engagement rate and average engagement time offer insights into how deeply users interact with the content, helping destinations identify which pages or features are most compelling.
- Event count and views reveal the frequency of specific actions-such as brochure downloads or itinerary planning.
- Conversions and conversion rate measure the effectiveness of marketing campaigns and the user journey toward valuable outcomes, like bookings or newsletter sign-ups.

These metrics are accessible through both standard and customizable reports, enabling quick overviews as well as deep dives into specific user segments, acquisition channels, and engagement patterns.

GA4 also introduces advanced features such as path exploration, which visualizes the most common navigation routes through your site, helping destinations optimize content flow and identify potential drop-off points. Machine learning-driven predictive metrics, like purchase probability and churn risk, allow tourism marketers to anticipate future visitor behaviors and segment audiences for targeted outreach. The integration with Google Search Console further enhances SEO insights, providing data on top search queries, landing pages, and device usage. Custom explorations and the ability to define unique events and user

² www.cbi.eu

properties make GA4 a flexible tool for tracking the full customer lifecycle-from initial discovery to post-visit engagement-empowering destinations to tailor their strategies for maximum impact.

- Keyword Planner and Google Trends: market intent mapping

These two tools help with identification of seasonal opportunities. Searches like “Rainy weather in Poznan”, “evening program in Kutna Hora” help with designing the product and user experience or preparing arguments for campaigns. Market gaps can be identified with the increased search volume with low response in results. It also identifies the related topics and increases the range of possible content and storytelling.

9 PROMOTION OF THE DATA COLLECTION AND MOTIVATION

To effectively motivate tourists to participate in surveys and data collection, Destination Management Organizations (DMOs) should employ a dual strategy: a robust motivation approach paired with a tailored communication campaign. The goal is to make participation both appealing and meaningful, ensuring high-quality data while strengthening the bond between the visitor and the destination. The city aims to gather valid and actionable information to feed its tourism strategy and ensure that decisions reflect real visitor feedback. Achieving a high number of respondents is crucial to obtain a representative sample, ensuring that the evaluation and recommendations are meaningful. Ideally, a compact and universal model should be developed, one that can be applied not only in this city but also across other V4 cities and destinations.

A core concept around data collection must be developed. The survey initiative should be presented as a cohesive and attractive project with a clear identity that captures attention and motivates participation. The process of participation must be simple and easy to understand.

9.1 STRATEGY FOR TOURISTS

9.1.1 Motivation strategy for tourists

The main goal is to actively engage and motivate both domestic and international tourists to complete a survey (approximately 15 minutes). The core of the motivation strategy should be a mix of intrinsic and extrinsic incentives.

- Attractive incentives: offer a range of rewards for survey participation. These can include instant rewards like small discounts, as well as entry into prize draws for larger rewards such as free stays, experiences, or gift cards. It can be also a free souvenir, such as a unique medal or coin commemorating their involvement, or a locally themed treat like a traditional pastry, ice cream, or local wine. Charity donations on behalf of participants can also appeal to those motivated by altruism. The practice shows that the most effective way are the discounts. It should be a “product” provided by the public institution – free transportation, museum tickets, swimming pool entrance, etc. **The direct financial benefit**

is the most powerful leverage. However, the incentives can also be non-material, for example, exclusive information, or priority access to tickets.

- Personal benefit and impact: emphasize to tourists that their feedback directly influences improvements in services, experiences, and sustainability efforts. When visitors see a tangible outcome from their input – such as better facilities, new attractions, or greener options – they are more likely to contribute. Leaving a review for a hotel or a restaurant becomes a part of the travel experience. To fill in the survey if well communicated can be part of the standard customer journey, however, this will always be relevant for only part of the market.
- Gamification and entertainment: integrate game-like elements into the survey process – such as quizzes, scavenger hunts, or trivia related to the destination. This approach makes participation fun and engaging, especially for families and younger travelers. This can be attractive for these segments, however, it must be considered in combination with other channels and motivations.
- Recognition and community: publicly acknowledge participants, for example through leaderboards, digital badges, or featuring select feedback in destination newsletters or social media. This fosters a sense of belonging and pride in contributing to the community. They can receive a certificate of membership in the “Friends of XY”. This can also be a part of the strategy supporting repetitive visitation and create brand ambassadors.

Figure 4: Communication and certificate from Kutná Hora





Source: own creation

9.1.2 Communication strategy for tourists

Promotion of the survey should be multi-channel, personalized, and emotionally resonant. It should reflect the values and motivation of the visitors. We can divide the data collection into three stages according to the customer journey. Even if it seems clear that we need the information at the very last stage, the information from the pre-arrival time can be used for campaigns, information materials etc.

At the pre-arrival phase, the booking confirmations and welcome emails can be used to inform visitors about the opportunity and value of participating in surveys. On-site in-room information, at the receptions, the customers can be informed and asked for filling the questionnaires. QR codes or paper questionnaires can be offered at attractions. Posters, and staff reminders can help ensure visibility at key moments in the visitor journey.

If the destination uses already an application, embed surveys and interactive elements directly into destination apps, digital guides, and Wi-Fi login pages. Push notifications and reminders can be timed to coincide with the end of an experience or stay, when impressions are fresh.

Social media can serve as leverage for participation. Especially the Instagram or even TikTok can attract and reach the younger generation. Using the DMO's social media platforms to invite participation, and share stories of how feedback has led to concrete improvements, and celebrate winners of survey-related contests will bring higher engagement and awareness about importance of data

collection and the activity itself. User-generated content, such as testimonials or photos from participants, can amplify reach and authenticity.

Storytelling and transparency about real stories about how past survey results have led to positive changes helps validate the relevance of the surveys. The DMOs can use visuals and short videos to illustrate the journey from feedback to action, building trust and emotional connection.

Personalized follow-up after participation to thank respondents and share a summary of findings or planned improvements closes the feedback loop and encourages future engagement.

9.1.3 Process example

The process must be simple. For example, visitors scan a QR code, complete the questionnaire, and upon submission, receive a thank-you message along with a QR code that entitles them to collect a reward. If respondents provide their email address, they receive a certificate of membership in the “Friends of XY Destination,” along with the option to subscribe to newsletters and special offers. Rewards can be collected at the Tourist information centre or another designated location, where staff verify the QR code. Additionally, participants can spin a “wheel of fortune” for a chance to win extra prizes.

QR codes and information are distributed through business cards, printed tourist materials, and the city’s website and social media. Physical locations such as benches, signposts, and ticket offices at attractions display the QR codes, alongside posters and flyers. Out-of-home advertising (e.g., billboards) managed by the city can also be used. Where possible, private sector partners such as hotels and restaurants should encourage to participate in the campaign.

9.2 COMMUNICATION STRATEGY WITH LOCALS /RESIDENTS

Inquiry forms should be presented in different places like buildings belonging to local authorities, schools, train/ bus stations, shops and restaurants/ cafes. Everywhere when inhabitants come and spend time. The communication can be accompanied by the link, QR code or other mean, and call to action leading to filling the questionnaire.

The possible online channels are social network managed by municipality or local citizens' initiatives and groups.

Offline channels beside above mentioned places can comprise of local newspaper, or flyers in the post boxes (once a year, for example).

Figure 5: Communication example from Kutná Hora



Source: Own creation

Local businessman can encourage residents to participate in inquiry by informing them about such initiative and its goals to be achieved.

CONCLUSION

The publication highlights the importance of comprehensive, integrated, and stakeholder-driven data collection. It plays in managing tourism sustainably, especially in culturally significant destinations across Central and Eastern Europe an essential role. The project, supported by the International Visegrad Fund, demonstrates that while tourism statistics have a long tradition in the region, the sector is undergoing a transformation driven by digitalization, the diversification of data sources, and the need for more nuanced, actionable insights.

One of the most significant findings is the evolution from traditional, quantitative data collection – such as accommodation and border statistics – towards hybrid systems that combine administrative data, direct surveys, and advanced digital tools. Some destinations exemplify this shift by integrating face-to-face interviews, mobile data analytics, and online platform statistics to create a more holistic understanding of visitor flows, economic impacts, and the subjective experiences of both tourists and residents. The emergence of platforms like Tourdata.cz in the Czech Republic marks a major step forward, centralizing data from multiple sources and making it accessible for strategic planning, marketing, and real-time management.

However, the document also identifies persistent challenges. Data fragmentation and the lack of standardized methodologies across regions and countries hinder comparability and the creation of robust national and transnational analyses. Informal accommodation, such as Airbnb and private rentals, remains underreported, distorting the true economic and social impact of tourism. There are also significant gaps in qualitative data, particularly regarding the perceptions and satisfaction of residents and entrepreneurs, whose voices are critical for balanced and sustainable destination management. The reluctance of some businesses to share data, often due to concerns over taxation or administrative burden, further limits the scope and accuracy of monitoring efforts.

A recurring theme is the need for capacity building, especially at the local level. Many smaller municipalities and DMOs lack the resources, technical expertise, or motivation to implement modern data collection systems. The document

recommends targeted training, incentives for data sharing, and the formalization of relationships between data providers and users to improve both the quality and utility of collected information. It also emphasizes the importance of integrating qualitative insights – such as resident sentiment, perceived impacts, and business feedback – into monitoring systems, ensuring that tourism development aligns with the needs and aspirations of all stakeholders.

Technological innovation is identified as both an opportunity and a challenge. Tools such as mobile tracking, AI-powered people counters, and social listening platforms offer unprecedented granularity and immediacy in data collection. However, their adoption is often limited by cost, technical complexity, and concerns over privacy and data protection. It is necessary to support a pragmatic approach: combining high-tech solutions where feasible with more traditional, resource-efficient methods like structured surveys and stakeholder interviews. The DMOs call for the development of shared data platforms and the harmonization of indicators, which would enable better benchmarking, trend analysis, and strategic decision-making at both the local and international levels.

The project's pilot studies and needs analyses reveal that successful monitoring systems are those that are continuous, transparent, and inclusive. Best practices from destinations such as Vienna, Český Krumlov, and Linz show that regular data collection, stakeholder collaboration, and the integration of cultural and tourism data lead to more effective management and greater resilience in the face of challenges like overtourism or seasonal fluctuations. The inclusion of resident and business perspectives is particularly important in cultural destinations, where the preservation of heritage and local identity must be balanced with the demands of visitors and the tourism economy.

In terms of practical recommendations, we stress the importance of clear communication and motivation strategies to encourage participation in surveys and data collection. Incentives – both material and non-material – should be offered to tourists, residents, and businesses to increase response rates and data quality. Communication should be multi-channel, transparent, and tailored to the values and motivations of different groups. The process of participation must be simple, and the results of data collection should be shared openly to build trust and demonstrate the tangible benefits of monitoring efforts.

We underscore that the ultimate goal of data collection in tourism is not merely to generate statistics, but to support evidence-based, sustainable management that enhances the quality of life for residents, preserves cultural heritage, and delivers meaningful experiences for visitors. The guidelines developed provide a practical roadmap for destinations seeking to implement or improve their own monitoring systems. By adopting integrated, stakeholder-focused, and technologically adaptive approaches, destinations can better navigate the complexities of tourism development and ensure long-term sustainability.

REFERENCES

Agency Analytics. (2025, January 16). *Google Analytics 4 (GA4): A complete beginner's guide for marketers*. <https://agencyanalytics.com/blog/google-analytics-4-guide>

ATLAS Cultural Tourism Research Project. <https://www.richardstourism.com/atlas-cultural-tourism-project> (accessed 21.02.2025)

Backlinko. (2025, April 14). *Google Analytics 4 (GA4): The ultimate guide*. <https://backlinko.com/google-analytics-4>

Brandwatch. (n.d.). *Leading social listening technology*. <https://www.brandwatch.com/products/listen/>

Central Statistical Office. (2022). *Tourism in Greater Poland Voivodship in the years 2018–2021*. <https://poznan.stat.gov.pl/publikacje-i-foldery/sport-turystyka/turystyka-w-wojewodztwie-wielkopolskim-w-latach-20182021,2,3.html>

EGMUS (European Group on Museum Statistics). <https://www.egmus.eu/> (accessed 21.02.2025)

European Travel Commission. <https://etc-corporate.org/> (accessed 21.02.2025)

Eurostat (2018). *Guide to the Eurostat Cultural Statistics*. 2018 Edition. <https://ec.europa.eu/eurostat/documents/3859598/9433072/KS-GQ-18-011-EN-N.pdf/72981708-edb7-4007-a298-8b5d9d5a61b5?t=1544174403000> (accessed 23.02.2025)

Google. (2023). *Future of travel research 2040*. Retrieved May 17, 2025, from <https://www.thinkwithgoogle.com/intl/en-145/consumer-insights/consumer-trends/future-of-travel-2040/>

Google. (2025). *Introduction to Google Analytics*. Google Developers. <https://developers.google.com/analytics/devguides/collection/ga4>

Google. (n.d.). *BigQuery*. Retrieved May 17, 2025, from <https://cloud.google.com/bigquery>

Google. (n.d.). Destination Insights with Google. Retrieved May 17, 2025, from <https://destinationinsights.withgoogle.com/>

Google. (n.d.). Google Analytics 4. Retrieved May 17, 2025, from <https://analytics.google.com/analytics/web/>

Google. (n.d.). Google Data Studio. Retrieved May 17, 2025, from <https://datastudio.google.com/>

Google. (n.d.). Google Forms. Retrieved May 17, 2025, from <https://forms.google.com/>

Google. (n.d.). Google Trends. Retrieved May 17, 2025, from <https://trends.google.com/>

Google. (n.d.). Keyword Planner. Retrieved May 17, 2025, from <https://ads.google.com/home/tools/keyword-planner/>

Google. (n.d.). Travel Analytics Center. Retrieved May 17, 2025, from <https://travelinsights.withgoogle.com/>

Központi Statisztikai Hivatal [Central Statistical Office] *Turizmus-vendéglátás adatbázis [Tourism-Hospitality Database]*. <https://www.ksh.hu/turizmus-vendeqlatas> (accessed 21.02.2025)

Loves Data. (2024, January 10). *Google Analytics 4 tutorial 2024* [Video]. YouTube. <https://www.youtube.com/watch?v=pRKpaZJJRxk>

Magyarországi kulturális statisztika [Hungarian Cultural Statistics]. <https://kulturalisstatisztika.hu/home> (accessed 23.02.2025)

Makranczi, Zs. (2021). Múzeumok és turizmus. [Museums and tourism.] *MúzeumokMa, országos múzeumi kutatás [Museums Today, National Museum Research]*. Chapter 16. <https://magyarmuzeumok.hu/cikk/muzeumok-es-a-turizmus> (accessed 23.02.2025)

Małopolska Organizacja Turystyczna. (2023). Ruch turystyczny w Krakowie w 2022 r. [Tourist traffic in Kraków in 2022]. Badania realizowane dla Urzędu Miasta Krakowa. <http://www.mot.krakow.pl/badanie-ruchu-turystycznego.html>

Measure School. (2024, October 23). *Conversion tracking in Google Analytics 4 (Key events)*. <https://measureschool.com/conversion-tracking-in-google-analytics-4/>

Nemzeti Turisztikai Adatszolgáltató Központ [National Tourism Data Service Centre]. <https://ntak.hu/bejelentkezes> (accessed 23.02.2025)

Nemzeti Turizmusfejlesztési Stratégia 2030 [National Tourism Development Strategy 2030]. <https://mtu.gov.hu/cikkek/strategia/> (accessed 23.02.2025)

Oaky. (2025). *Hotel upsell software*. <https://oaky.com/en/>

Oaky. (2025). *Pre-stay upsell*. <https://oaky.com/en/products/pre-stay-upsell>

Peakspan Capital. (2023, April 4). *Oaky launches front desk upsell automation solution for hotels to boost revenue strategies*. <https://www.peakspancapital.com/partnerships-news/oaky-launches-front-desk-upsell-automation-solution-for-hotels-to-boost-revenue-strategies>

Poznańska Lokalna Organizacja Turystyczna (PLOT). (2021). Stan turystyki w Poznaniu i metropolii Poznań w roku 2021 [State of tourism in Poznań and Poznań metropolis in 2021]. https://poznan.travel/uploaded/File/barometr/PLOT_Turystyka_w_Poznanu_2021_v04%20OK.pdf

Probáld, Á. (2018). A hazai turizmusstatisztika története. [History of Hungarian tourism statistics.] *Statisztikai Szemle [Statistical Review]*, 96(6), 610-640, DOI:10.20311/stat2018.06.hu0610

Puczkó, L. (2009). Magyar Múzeumi Kutatás 2007-2008. [Hungarian Museum Research 2007-2008.] *Múzeumi Közlemények [Museum Publications]*, 2009(1), 1-118.

Regulation (EU) No 692/2011 of the European Parliament and of the Council of 6 July 2011 concerning European statistics on tourism and repealing Council Directive 95/57/.eu. <https://eur-lex.europa.eu/lexicon/ui.do?uri=OJ:L:2011:R:0692:20110706:ENG> (accessed 23.02.2025)

Stołeczne Biuro Turystyki. (2022). Turystyka w Warszawie: Raport 2022 [Tourism in Warsaw: 2022 report]. https://warsawtour.pl/wp-content/uploads/2023/11/Turystyka_w_Warszawie_Raport_2022.pdf

Stołeczne Biuro Turystyki. (n.d.). Raporty i badania [Reports and research]. <https://warsawtour.pl/raporty-i-badania/>

Stowarzyszenie na Rzecz Badania, Rozwoju i Promocji Turystyki. (2021). Wpływ turystyki na gospodarkę Warszawy oraz ościennych podregionów:

Warszawskiego Wschodniego i Warszawskiego Zachodniego na lata 2019–2020 [The impact of tourism on the economy of Warsaw and surrounding subregions: Eastern and Western Warsaw for 2019–2020]. https://warsawtour.pl/wp-content/uploads/2022/04/Wplyw-turystyki-na-gospodarke-Warszawy_Opracowanie_sktrocone.pdf

Talkwalker. (n.d.). *Social listening*. <https://www.talkwalker.com/products/social-listening>

TEA&AECOM (2024). *Theme Museum Index*. The Global Attendance Report 2023. <https://aecom.com/theme-index/> (accessed 23.02.2025)

UNWTO (2018): *Tourism and Culture Synergies*. <https://www.e-unwto.org/doi/book/10.18111/9789284418978>

UNWTO. *Tourism Data Dashboard*. <https://www.unwto.org/tourism-data/un-tourism-tourism-dashboard> (accessed 23.02.2025)

Urząd m.st. Warszawy. (2020). *Polityka turystyczna Miasta Stołecznego Warszawy* [Tourism Policy of the Capital City of Warsaw]. <https://warsawtour.pl/wp-content/uploads/2023/03/Polityka-Turystyczna-m.st.-Warszawy.pdf>

Urząd Miasta Krakowa. (n.d.). A sustainable tourism policy for Kraków in the years 2021–2028: Diagnosis and recommendations. <https://www.bip.krakow.pl/zalaczniki/dokumenty/n/327230/karta>

Zajadacz, A. (2024). Monitoring tourist traffic at the regional and local level in Poland: Examples of good practices in destinations with unique cultural values.

Zajadacz, A., & Sowa, P. (2025). Sustainable tourism monitoring system at the local level: Challenges and recommendations.

Zajadacz, A., & Szał, Ł. (2024). Needs analysis for destinations focused on cultural tourism [PowerPoint slides].

Zajadacz, A., Sowa, P., & Szał, Ł. (2024). Guidelines testing in the respective destinations – research report.

Zajadacz, A., Szał, Ł., & Sowa, P. (2024). Evaluation of the applied data collection guidelines, data analysis – research report.

This book was created as part of the project “Data collection guidelines for tourism and sustainability monitoring in cultural destinations”, project ID #22320140.

The project is co-financed by the Governments of Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe.

Edited by: Zuzana Kvítková

© Zuzana Kvítková and the authors of the chapters, 2025

