Unbalanced tourism growth at destination level – root causes, impacts, existing solutions and good practices

Final Report

Annex 2: Best practice case study reports

Draft version

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LEGAL NOTICE

Case studies

Florence 1
Lucerne 17
Vienna 34
Bay of Lübeck 54
Geirangerfjord 72
Iceland 87
City of Palma, Majorca, Balearic Islands 109
Mallorca, Balearic Islands, Spain 130
Malta 153
Burren and Cliffs of Moher UNESCO Global Geopark 164
Parc naturel régional des Monts d’Ardèche 179
Plitvice Lakes 189
Bled 208
Dolomites 221
Rigi 236

Florence

1. General Information about the destination

Case study item	Information	Data source
Destination name	City of Florence	
Destination type	Urban/Metropolitan	
NUTS 3 Level	ITI14	
Country	Italy	
Region	Florence/Toscana	
Tourist area size (km2)	The City of Florence: 102.4 km² Citta Metropolitana di Firenze (Province of Florence): 3 514 km² Centro Storico (core area): 5.05 km²	Citta di Firenze (2021a): Statistica, Bollettino di statistica – Gennaio 2021 https://www.comune.fi.it/system/files/2021-02/Bollettino_gennaio21.pdf Associazione Beni Italiani Patrimonio Mondiale – Centro Storico di Firenze https://www.patrimoniomondiale.it/?p=30
Population		
inhabitants in destination	366 767 (2021) (City of Florence) 1 004 298 (2019) (Province of Florence)	Citta di Firenze (2021b): Statistiche demographiche, Popolazione del Comune di Firenze. https://www.comune.fi.it/pagina/statistica/statistiche-demografiche
inhabitants in tourist centre/core area	65 164 (Q1 – Centro Storico, 2021)	Citta di Firenze (2021b): Statistiche demographiche, Popolazione del Comune di Firenze. https://www.comune.fi.it/pagina/statistica/statistiche-demografiche

Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	Total GDP contribution in Italy: 13.1% (2019)/7.0% (2020) Number of jobs in travel and tourism: 3 499 300 and 15.0% of total employment (2019)/3 162 000 and 13.8% (2020)	**https://wttc.org/Research/Economic-Impact**
Importance of tourism in destination (GDP, employees)	In the year 2019 in the region of Tuscany 21% of all employees were working in the sector of accommodation and restaurants.	Regione Toscana: Statistiche https://www.regione.toscana.it/statistiche/dati-statistici/lavoro-istruzione-cultura
tourist arrivals in destination (2015-2019)	Provincia di Firenze (Province of Florence): 2015: 4 944 939 2016: 4 975 687 2017: 5 270 527 2018: 5 306 997 2019: 5 372 412 2020: 1 221 416	Regione Toscana: Statistiche https://www.regione.toscana.it/statistiche/dati-statistici/turismo
overnight stays in destination (2015-2019)	Provincia di Firenze (Province of Florence): 2015: 13 703 971 2016: 14 129 125 2017: 14 936 605 2018: 15 495 881 2019: 15 840 756 2020: 3 323 366	Regione Toscana: Statistiche https://www.regione.toscana.it/statistiche/dati-statistici/turismo
day visitors, park entrances, cruise arrivals etc.	Gallerie degli Uffizi (2019): 4 391 895 of which: Gli Uffizi: 2 361 753 Palazzo Pitti: 777 212 Boboli Gardens: 1 252 896 The Florence Cathedral (total number of visitors to the whole complex) (2019): 1 228 668 Galleria dell’Accademia (2018): 1 719 645	Gallerie degli Uffizi https://www.uffizi.it/news/uffizi-numeri-2019 Opera di Santa Maria del Fiore, Annual report 2019 https://duomo.firenze.it/en/about-us/today/transparency/annual-report Regione Toscana, Musei della Toscana, Rapporto 2019 https://www.regione.toscana.it/documents/10180/23845694/Rapporto%20Musei%202019.pdf/2e133051-21f2-0a70-0316-07816048e997

% tourism growth over the last 10 years	Arrivals: +26% (from 4 248 818 in 2010 to 5 372 412 in 2019) Overnight Stays: +39% (from 11 418 183 in 2010 to 15 840 756 in 2019)	Regione Toscana: Statistiche https://www.regione.toscana.it/statistiche/dati-statistici/turismo

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available
15.8 (Province of Florence)

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)
4508 (Province of Florence)

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

The temporal distribution of **tourist arrivals is quite well balanced** in Florence, the season lasts almost all the year long. There are only few weeks of low season (see below).

The **geographical distribution of visitors creates challenges for the city** as **most tourists focus only on the very small area (5 km²)** of Centro Storico (historical centre) and are not aware of very attractive sights in other parts of the City and Metropolitan Area. Furthermore, there are smaller towns around the city, which are also worth visit, and offer unique cultural attractions, but they are very little frequented in comparison to Florence and its central area.

Additional general remarks

In Florence there are some of the most frequented tourist sites of the world. They are all concentrated on the small area of the historical city centre, which is also the UNESCO World Heritage. Some of the places are crowded and people need to queue for the desired entry.

2. Tourism development

Tourism Development

How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic?
Short description of recent development

Tourism in Florence has recorded **moderate stable growth in recent years**. The annual increase of arrivals varied from 1 to 6 % between 2015 and 2019. The numbers of overnight stays grew from year to year of 2 to 6 % in this period of time. **The average length of stay was slowly increasing and oscillating round 2.8 days per stay.** The tourism management of the city was making efforts to extend the stays. The longer time the visitors stay the more they can see apart from the biggest hotspots in the historical centre. The longer the stay the more the spatial distribution of tourists all over the city and Florentine province can be balanced.

The pandemic led to a total breakdown in tourism in Florence. In 2020, there was a **decrease in arrivals of 78% and the overnight stays of 79%** comparing to the previous year (Centro Studi turistici di Firenze, 2020). Consequently, the average length of stay slightly dropped from 2.8 to 2.7 days per visit. The breakdown was caused by the closures of the city, the attractions and facilities, the restaurants etc. as well as by the global travel restrictions due to Covid-19 situation.

Visitor segments (Share and/or numbers)

What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.

Domestic **Italian visitors** represent **30%** and **international visitors 70%** in Florence.
Amongst the foreigners the most represented are the citizens of the USA (18.6%), followed by the Chinese visitors (9.2%). Tourists from Germany, Spain, France, United Kingdom and Japan account each for approximately 5% of foreigner visitors.

Table 1: Arivals (Arrivi) and overnight stays (Presenze) of the foreign visitors in the municipality of Florence (Quelle: Ufficio di promozione turistica ed Economica, Città di Firenze, 2020 Presentazione Firenze 2020).

	Arrivi 2017	Presenze 2017	Arrivi 2018	Presenze 2018	Arrivi 2019	Presenze 2019
USA	450.392	1.170.528	670.786	1.863.623	705.745	1.979.016
United Kingdom	139.400	417.914	219.161	748.733	196.488	672.689
France	123.025	347.876	212.511	698.450	197.808	617.520
Spain	126.980	327.374	217.387	582.967	204.432	534.871
People's Republic of China	143.557	281.963	366.612	608.079	347.793	590.395
Germany	96.750	267.620	204.584	788.591	206.486	757.507
Brazil	83.040	217.359	119.485	327.362	122.027	363.044
Japan	96.624	212.268	161.033	344.920	177.347	358.170

Temporal distribution/seasonality
When are the temporal peaks (if any)? How is the seasonal distribution of visitors? Explanation and numbers (if available)
Tourists come to Florence all year long. The highest season is in: April, May, September, October. There are only several weeks of low season in the middle-end of November and beginning of February.

Spatial distribution
What are the tourism hotspots? How is the spatial distribution of visitors? Explanation and numbers (if available)
The most of the **tourism hotspots are located in the historical centre of Florence**. It is a relatively small area of 5 km², which accommodates following most known sights (for visitor numbers see above): • The complex of Uffizi Palace and Gallery with Gli Uffizi, Palazzo Pitti and Boboli Gardens • Cathedral of Santa Maria del Fiore (Florence Cathedral), Piazza del Duomo with Brunelleschi's Dome, Baptistery of St. John • Galleria dell'Accademia • Palazzo Vecchio • Ponte Vecchio • Leonardo Interactive Museum • Basilica of Santa Croce • Palazzo Medici • Basilica di San Lorenzo • Piazzale Michelangelo Furthermore, the whole area of the Historic Centre of Florence belongs to the **UNESCO World Heritage since 1982**. This recognition attracts even more tourists to visit this so well-preserved area of history, culture, and art (UNESCO World Heritage List).

3. Tourism management in the destination

Organisation of tourism & stakeholders
How is tourism in the destination organised? Which authorities are responsible for tourism? Who are the central stakeholders involved in tourism management and development? Is there a monopolisation/dominance of certain businesses? What are the responsibilities of the different stakeholders?
There is a multilevel distribution of responsibility for tourism in Florence: The **Municipality of Florence is in charge of local strategies** and the welcome of tourists to the city. Florence and the Florentine area manages and coordinates the city area and collaborates with the authorities of the Metropolitan City of Florence.

Florence is also a partner of the Arno/Tuscany Valley
The **Region of Tuscany is responsible for the international promotion** of the whole region and consequently of the international promotion of Florence itself.

To the central stakeholders belong also the commercial partners (single companies as well as represented by the Chamber of Commerce) and private bodies like "Destination Florence" and travel agencies.

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

The management and organisation of tourism includes different levels of administration. There is a steering board at local – regional level consisting of the Municipality of Florence, the Metropolitan City of Florence, the Tuscan Regional Authority, the University of Florence and its Transdisciplinary UNESCO Chair for Human Development and the Culture of Peace, the UNESCO Centre of Florence, the Trade Associations and the Chamber of Commerce, the Arno River Basin Authority, the Civil Defence Department, the foreign Institutes, the research institutes, the Associations and Foundations etc.
Furthermore, the Ministry of Culture and tourism is responsible for the decisions at national level.
The international level is represented by the UNESCO world Heritage Centre and the Offices, Associations and Foundations. They deal with the management of the World Heritage sites and development of shared projects. Since 2006 there is a special UNESCO office in Florence dedicated to sustainable management of the Historic Centre which acts on local, regional and international level.

The multilevel management of tourism leads to the coexistence of regional and municipal steering instruments. The regulations can be ordered by regional, city or national law resolutions.
There are general strategic city development plans like e.g. Smart Florence Plan issued in 2015 as well as specific heritage management and tourism development plans like the UNESCO strategic plan (Management Plan for the UNESCO Heritage Core Zone and the Buffer Zone – 2016 and the Monitoring of the Management Plan – 2018).
Each body of public administration issues its own plans to manage the city as tourism destination and the tourism flows. The management is becoming more and more coordinated through the above-mentioned cooperation within the steering board.

Additional comments:
Are there any other important facts to understand the tourism management in the destination?

The tourism management in Florence is a very broad, multilayer and not easily comprehensive system. There are different zones to which the plans of different management institutions and administrative bodies refer (e.g. the UNESCO city centre, is managed by the UNESCO and the city administration in the same time).

There is already a **strong cooperation among the different layers of management**, which has been declared by regional low. Nowadays different zones belonging to different municipalities are able to cooperate in an efficient way. It used to be different in previous years when every municipality was acting by itself. They managed to elaborate an efficient cooperation to enable the tourism zones to work together on the regional level for the international promotion of Tuscany. The region of Tuscany promotes the tourism zones in a coordinated way.
The **commercial partners and private actors are also involved in the cooperation**

There is a **monthly tourism board** at municipal level: it involves the chamber of commerce, the university, the municipalities, Destination Florence, further commercial partners, private actors in order to share and elaborate the strategies.

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers
What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)
Tourism is very beneficial to the city of Florence and therefore there is no need to describe the current visitor flows as overtourism (interviewee 2021). However, there are many issues concerning the unbalanced tourism development. One of the biggest problems is the concentration of over 10 million of visitors per year in the 5 km² of the centre of Florence and ignoring all the rest of interesting places around. It is **caused by too short stays, lack of knowledge, willingness to see as many places as possible in a very short time. Lacking awareness of the abundance of historical and cultural heritage that is to be found in Florence.**

Impacts
What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders? **Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?**
There is a significant impact on commercial development of the centre of Florence. There are only several branches of economic activity that are growing: certain type of food and beverage, low quality of products for tourism (souvenirs), some high (fashion) brands. The artistic handicraft became more and more less artisanal. **A significant disappearance of the real craftmanship** and giving way to the stores with cheap standardised souvenirs could be observed in the recent years. The **shops and advertisement developed in uncoordinated way disordering the cityscape.** The city struggles also with the problem of **waste management**. The accurate provision of garbage bins and effective cleaning of the city after such a big number of visitors remains a challenge. **A lot of inhabitants left the city centre** in order to rent the apartments to tourists. The centre become an open-air museum or dormitory with no proper supermarkets, nor local shops. It also destroyed the social structure of the city centre.

Tourists coming to Florence know the hotspots are crowded. They are prepared for some necessary queuing and therefore it is not diminishing the quality of the visit experience in a significant way. It is still possible to get into the most important sights and as long as the visitors finally got inside, they are glad with their visit.

The impact on transport infrastructure is very small as the size of the Centre allows to get everywhere without a need for additional means of transport. Thanks to the limited traffic area in Florence (Zona Traffico Limitato or ZTL in Italian) the tourists can easily and undisturbed by cars walk around the city centre.

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

As stated above, with the retreat of the inhabitants from the city centre, the social and infrastructural urban structure of the centre gradually disappeared. It is harmful for both: the city inhabitants as they cannot be provided with appropriate services and the visitors as they want to experience a real authentic city and be part of it for the time of their visit.

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

The **central bottleneck is the number of tourists on the small area of the city centre** as well as overbooking of the small number of places. Consequently, the hotspots are always overbooked and full.
The lack of awareness that there are other places with comparable offer (like e.g. Bargello which is less known and little visited, but offers almost as much as the Uffizi).
Further challenge are **different layers of the museums' management**. There are state museums, municipal museums, museums belonging to the church (L'Opera dell Duomo). To make the museums effectively cooperate for the best experience of all visitors remains still a challenge.

Additional comments on the overtourism situation

Are there any other important aspects to understand the unbalanced tourism situation in the destination?

Florence is very abundant in very interesting and unique places and attractions that are not well known. The **challenge is to spread the visitors all around the territory**, make them visit this other places. It is important for the economy of the whole area, but also for more balanced tourism flows and in consequence better visitors' experience.
This is currently one of the main goals in the tourism management in Florence: to decrease the pressure in Florence and in the same time increase the numbers of visitors all around the territory.
There are also efforts to find the **new targets**. Florence is very well known for culture, art and for the renaissance, but this is not all. Florence is much more: it is also a modern art destination, but it is not a shopping destination or nightlife destination (interviewee 2021).

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

The most important for the effective management of unbalanced tourism and prevention of possible negative impacts of tourism is the cooperation, which has been developing since appr. 5 years: for territorial and tourism management the relevant institutions and private stakeholders' associations meet at monthly board (described above). The meetings include also hoteliers, chamber of commerce. Together all the stakeholders and public authorities try to point out and align a new strategy.
The **main initiator of the cooperation was the city councillor** Cecilia Del Re (Urbanistica, ambiente, agricola urbana, turismo, fiere e congressi, innvazione tecnologica, sistemi informative, coordinamento progetti Recovery Plan, smart city, piano gestione Unesco). Before the named cooperation initiatives, there was no interaction between the stakeholders and the administrative authorities, nor between different levels of territorial management. It took 3 years to create the cooperating steering board as a structure for managing tourism with the effect that now everyone can recognise a clear profit of the cooperation.
The **result of the cooperation are shared strategies, regulations** as well as tools for managing tourism (homepages, applications, data analysis).

The main goal of the truism management is the correct management of tourism flows.

1. **Seasonal management**. Even if Florence has tourism almost all year long it is important to keep inviting the tourists throughout the whole year. Some time ago the summer used to be also a longer period of low season.
2. **Geographical management**. The focus is on information what is to be found, seen and experienced in the Florentine Area. There is a need to actively counteract against the geographically unbalanced tourism in Florence.

In July 2020, there was a new website launched (www.feelflorence.it), which is managed by the Metropolitan City of Florence. It has a shared distribution of content and has a new system of presentation of information. There are more than 2 000 georeferenced items. The information concerns also the accessibility and potential barriers for visitors with special needs.
In addition to the homepage, there is also a mobile application FeelFlorence. It has a special real time reaction function: when a person is approaching a crowded place (e.g. a museum in 200m), there is a pop-up suggesting what the visitor could do in the meantime or as an alternative.
Enlarging the offer (to avoid the overcrowding of e.g. Galleria Uffizi) and management of the queue and reservations are further measures which are continuously being developed and adapted.

In order to preserve the character and the beauty of the city itself, the direction of unregulated development of the shops was faced by a **new regulation of the municipality of Florence** (4 years ago). It stopped the uncoordinated opening new food and beverage shops, and introduced regulations for shop display and advertisement in order to give them more harmonious appearance and help to restore the character of the city centre.

Innovative aspects

What are unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

Continuous cooperation (monthly meetings) of all stakeholders.
Using new formats of websites for tourists.
Development of the application with special functionalities helping to avoid the overcrowding of the tourist hotspots and inviting the visitors to the areas outside the historical centre.

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

The City of Florence and the whole area is very into the data analysis and evidence-based decisions concerning the tourism management. See below the "Monitoring" section.

Challenges & success factors

What were the central challenges when planning, developing, and implementing the measures?
What were the central success factors when planning, developing, and implementing the measures?

Central challenges:
The different layers and levels of administrative responsibilities. None of the administrative bodies can do everything by its own.
Especially the **cooperation between the municipality and the region of Tuscany** is a must for a successful development and implementation of the measures.

The success factor:
Monitoring and analysis of data concerning tourism in the area. The understanding of the results of the data analysis. The discussion of the results is a very important point during the steering board meetings.

Transferability to other destinations with similar characteristics

What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?

1. The preservation of the city is crucial for the inhabitants and the tourists. Preserving the city means to manage the tourism. The tourists do not want to be the tourists, they want to be the real "citizens" for the time of the stay. They come to experience the city, to get to know and live the beauty of the city. **An attractive tourism destination has to have its own life and unique character**.
2. **Networking and cooperation** are crucial in all cases.
3. Infrastructure development: the connection between Florence and smaller cities needs to be improved. If there is no train/good public transport the other places will not be visited and the strategy for visitor distribution over further sights and towns will not work. **A well-functioning transport infrastructure is beneficial to both: the inhabitants and the tourists**.
4. **Management of the opening hours**. Following solutions has been implemented already:
   - Night opening

- Very long opening hours
- Coordination and alignment of the opening hours: e.g. if state museums are closed on Mondays, municipal museums are opened on Mondays
- Variation of the offer, complementation of each other's offer.

Additional comments on solution approaches
Are there other important aspects to understand the strategies/measures chosen?

The preservation of the quality of life in the city, of the city itself is crucial for sustainable tourism management.

6. Monitoring/indicators

Monitoring of overtourism situation

Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?

There is a system based on the effective presence of visitors in the territory.
Following data is being collected:

- overnight stays (based on the hotel stay tax and non-hotel city tax information). It provides exact information how many people stayed where and when. The official data contains the information on the nationality and further characteristics of visitors.
- daily tourists (data sources):
    - coming by bus: there are official points where they stop and pay a fee, -> information (how many, from where the bus came, e.g. tourists from cruises)
    - by train or private car: no data
    - Real time data collected from mobile devices (by Florence WiFi): based on the phone ID –> differentiation between national/international visitors, location, duration of stay, …
    - There are some groups of tourists who stay in the city but do not use any services like e.g. visitors from the cruisers: they come, have everything with them, often even a lunch packet from their cruise ship; they have no time for a museum, they are not easy to manage and monitor.

The Metropolitan City of Florence is by law responsible for data from the hotels.
The Municipality of Florence is in charge of the monitoring system and is the lead partner of the touristic area. The data analysis is contracted to study centres. There are still different organisations in charge of data. Thanks to the **established collaboration they bring the data and the results together, enabling elaboration of evidence-based decisions**.
The City of Florence manages the data and the process and external companies are contracted to work with the data.

Indicators used

What are indicators used for the observation? Which indicators have proven successful?

Following indicators are collected and analysed: arrivals, overnight stays, nationality, kind of accommodation (private or hotel), location of accommodation, number of nights (length of stay), size of the group.

Specific indicators

Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?

Perception of the city, sentiment analysis: monitoring of the web and how Florence is perceived (social media, text and picture analysis).
Further data is collected from credit card, from mobile phones, …

Challenges and success factors of the monitoring

What are the challenges and success factors of the monitoring system/the indicators?

Main challenge: to read exactly the results of the monitoring, and focus on what is really important while formulating the questions.
The success depends on the precise formulation of the questions for data assessment.

Additional comments on monitoring/indicators: Are there other important aspects regarding the monitoring?

Based on the knowledge gained from the data analysis it is known that for example the families with children stay longer than couples or singles. The seniors also tend to stay longer. Knowing the characteristics of the target group, appropriate and tailored suggestions of activities can be made for them. It is implemented by the "Feel Florence" application.

There is still a problem concerning data prediction in order to make tailored promotion for specified target groups. However, the City of Florence is not responsible for tourists prior to their arrival to the city. For this section of promotion (international, national promotion) the region of Tuscany is in charge. The city itself cannot influence the international promotion yet. The region of Tuscany manages different data and makes decisions based on their results.

There are efforts to influence the tourists guides like e.g. "Lonely Planet". It is understandable that they describe the most known places like Uffizi, but they work on including also good descriptions of less known but the same worth-visiting places in the guide to invite people to visit it.
These efforts are in line of the goal of extending the stays and distributing the visitors to other places by convincing people to see something more than the main hotspots. E.g. during a 3-night stay, tourists could visit more museums or do interesting walks around. **The more the management knows about the behaviour and preferences of specific visitor groups the more tailored offers can be prepared.**

7. Management of the pandemic

Changes due to the pandemic

What has changed due to the pandemic? How has the pandemic influenced the tourism development?
How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?

Everything has changed due to the pandemic.
The decrease in visitor numbers reached 90% considering only the City of Florence and 78% in the whole Florentine area.
During the year 2020 90% of hotels were closed.

Already before the pandemic outbreak a new strategy for tourism management and development was being developed and started. The new approach concentrates on the effective strategic distribution of visitors among the attractive sights. It is also in line with the social distancing and avoiding the crowded places, which contribute to the containment of spreading the disease. The strategy is being further developed and used to promote other places than the main hotspots (gardens, villas etc.).
The **sudden disappearance of international tourists** led to more focus on the national target groups of tourists and intense promotion of Florence on the national level. The first tourists who came to Florence after lockdown were people from the Florentine area itself and further surrounding region; they were finally able to see the city and visit the places without the queue.
It all led to **a change in strategy and awoke of more focus for the quality of stay**. Quality understood as more interest to the place, more awareness and more opportunities to learn through travelling. The promotion of the city is still in the transformation process, the process is still not over: nor the pandemic, neither the change in management strategy and tourists' behaviour. The general long-term idea for tourism development (already started before the pandemic) is to increase the level of experience, the quality of stay, attract more higher target of tourists (not from economic point of view, but in terms of cultural consciousness). Florence wants to make visitors ask themselves the questions: "do you know where you are?", "why are you here?".
The new goal set for the visit is learning and getting to know the city and all the heritage it represents. It shall go so far, that people could feel invited for repeating the visit in order to actually learn about arts, culture and history. The new promotional slogan shall contain following message: "Have you been to Florence? But what do you know about the place?"

Florence also wants to **address a new target of visitors: international students, workers, entrepreneurs, start-upper, etc**. and sees in this groups "**long-term tourists**" or "**short-term residents**" with the aim of contribution to the exchange of knowledge, ideas and businesses.

Additional comments
Are there other important aspects regarding the pandemic?

Through the Covid-19 Florence is one of the destinations which lost a lot. While the coastline is fully booked, the city is still quite empty in comparison to previous times. The situation in Florence and all around is very heavy as there are no visitors.
With the pandemic it became even more visible that the city centre developed only for the tourists in the last decades. The shops in the centre (souvenir shops) are not interested to Florentines, in 2020 nobody was buying the offered products. It means that in 2020 nobody was buying that, no Florentine was interested into the products which in consequence led to closures of many of the shops.

8. Outlook & Additional Comments

Expected future changes

What are the expected changes in the future tourism development? What are the plans for post-covid tourism?

Something new is coming, and they are working on it, but the economic and commercial situation is very though now, they have to preserve the inhabitants, the business, commercial background.

Now they cannot do a strict selection of visitors/companies -> they need everybody, because the system needs to be supported? Everybody that comes and stays for some time is welcomed.

1. The City of Florence **lost a vast income as consequence of disappearance of tourists**. One hand the economic base of private companies is affected. On the other hand, as consequence of missing the visitors also the city tax they used to pay is absent from the city budget. The difference for the year 2020 was EUR 42 000 000 (interviewee 2021). This money was normally used to restore and renovate the monuments, maintain the streets, sidewalks and other crucial infrastructure. Consequently, the strategy of the city and the metropolitan area is to invite and welcome any tourists that could come and spend their time in Florence.
2. There has been already **new trends and strategies in development** before the pandemic. The pandemic situation revealed, that this could be long term tourism development and city promotion strategies, which contribute to more balanced visitor flows. These are:
   a. **Long term stays** (long term visitors or short-term residents). Aimed at: entrepreneurs, students, artists but also all other sectors of economy (https://belong.destinationflorence.com/en/)
   b. **More consciousness and awareness** for the history and the cultural value of Florence. Invite people not only to visit and run through the city, but to learn about and from its heritage.

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

The most uncertain is the future situation of the Covid-19 pandemics development.

The biggest risk that can be named for now are the potential renewed closures in the autumn because of the pandemics.

As mentioned above, many renovations and restorations used to be paid by the city tax. The city could barely afford any further loss of this income.

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

Preserve your city, because it will also have a positive impact on the tourists' experience.

Additional comments

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Lucerne

1. General Information about the destination

Case study item	Information	Data source
Destination name	Lucerne	
Destination type	City	
NUTS 3 Level	LAU	
Country	Switzerland	
Region	Central Switzerland, Canton of Lucerne	
Tourist area size (km2)	0.36 km2 (approx. 600 x 600 m)	Tourismusrayon Stadt Luzern, ImmoCompass AG, October 30, 2018
Population	81 974 (2019) for the city of Lucerne	LUSTAT Statistik Luzern Datenquelle: Bundesamt für Statistik – STATPOP; bis 2009: LUSTAT – Kantonale Bevölkerungsstatistik; Dienststelle Raum und Wirtschaft des Kantons Luzern
inhabitants in destination	81 400 (= 2,176 inhabitants per km2)	https://www.atlas.bfs.admin.ch/maps/122/de/13633_10890_10870_8926/21976.html
inhabitants in tourist centre/core area	6 065 residents per km2 in Old Town/Wey	https://www.atlas.bfs.admin.ch/maps/162/de/15714_12156_12155_12154/24585.html
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	GDP: 7.4% (2019), 4.9% (2020) Employees: 493.5 (2019), 453.3 (2020) jobs in 1000	**https://wttc.org/Research/Economic-Impact**
Importance of tourism in destination (GDP, employees)	City of Lucerne (figures for 2019): GDP: CHF 849 Mio (8.3%) Employees: 7,798 (12.7%)	BAK Economics (2021) Die Bedeutung des Tourismus für die Luzerner Volkswirtschaft, p. 29

tourist arrivals in destination (2015-2019)		
overnight stays in destination (2015-2019)	2015: 106,000 2019: 115,248	https://www.lustat.ch/analysen/wirtschaft-arbeit/tourismus-2020
day visitors, park entrances, cruise arrivals etc.	8 Mio/year in city region (2014)	Hanser und Partner 2015
% tourism growth over the last 10 years	+25% (Canton of Lucerne 2008 – 2019), whereas overall Switzerland only +6% in the same period	BAK economics 2021:9

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

Lucerne is a sought-after tourism place for over two hundred years. Tourism has not only influenced the built environment with its monumental hotel buildings, new quays, and transport infrastructure, but has also coined image and identity of the place and its people. Since the turn of the millennium up until the outbreak of the pandemic at the end of 2019, **new emerging visitor markets**, mainly from China, are increasingly visiting the city by tour coaches, which are only pausing for a brief stop-over on a dense round-trip through Europe. Even though these **high visitor numbers lead to significant turnover for some stakeholders,** in particular the watch and jewellery businesses, local residents and traditional tourists increasingly feel alienated and disturbed by group tourists. Such group tourists follow a tight-scheduled itinerary accumulating in certain times, dates, and locations. Prior the pandemic they have often visited Lucerne in Summer, in late afternoon, at Schwanenplatz/Grendel or Löwenplatz, where the watch and jewellery boutiques are located in the historic old town. **Group tourists are accused by some part of local residents for their disturbing visitor behaviour**, their one-sided spending pattern and their limited engagements with the cultural values of the place and its residents. Furthermore, the pandemic has **impressively exposed the economic dependency on international visitor groups**, as the many tourist stores had to shut down their premises due to the missing visitors – or at least work with reduced opening hours.

Additional general remarks

Day tourists visiting in tour coaches are often not captured in the overnight statistics. Therefore, estimation about their visitor numbers differ significantly according to the sources used. A report of HSLU which contrasts different sources estimates day visitors between 2.9 – 7.0 million visitors per year.

2. Tourism development

Tourism Development

How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic?

Short description of recent development

- Due to an ongoing globalisation of the travel industry, tourism in **Lucerne has increasingly became more international in the last two decades**.
- The highest shares of international visitors (overnight stays) used to come (prior corona) from the **US and Asia**, whereas the importance of traditional source markets like **Europe and Switzerland has declined**.
- This development is expressed by following figures for overnight guests within the City of Lucerne (2008 to 2019): Switzerland remained stable (+0,1%), Europe decreased (-0.8%), USA grew moderately (+1%) and Asia significantly (+1.8%).
- The growth rate in the Canton of Lucerne (+2.1) and the City of Lucerne (+2.4%) were above the Swiss average (+0.6%) (BAK economics 2021:17).

- The visitor numbers stated above only include overnight guests, but no "**day-visitors".** As there is no accurate data for day-trippers, different studies estimate the numbers controversially, also depending on the definition of "day visitors" and the perimeter under scrutiny.
- A study of HSLU (Stettler et al. 2019:42) compared different published reports and figured that "**international day visitors" for the City of Lucerne vary between 0.4 million to 1.1 million a year (see Table 2 below)**. As these numbers are not raised continually, no time series indicating the development can be derived.

Table 2: Overview on day visitors as compiled out of different reports (Source: Stettler et al. 2019:42)

Day trips/day visitors (in million/year)	City of Lucerne	Greater Metropolitan Area	Canton of Lucerne	Central Switzerland
Domestic (Switzerland)	2.0 – 5.4	2.5 – 6.8	3.1 – 10.0	6.6
International (all other countries)	0.4 – 1.1	0.5	0.8	--
Business Travel	0.5	0.7	1.0	--
Total	**2.9 – 7.0**	**3.7 – 8.0**	**4.9 – 11.8**	**24 – 28**

Due to the closed boarders and restrictions in international travelling due to the pandemic crisis the situation has reversed, making the domestic and closer geographic markets such as Wester-Switzerland and (south) Germany more significant again. But visitors from traditional European and the Swiss home market are not making up for the overseas visitors. A consequence of the pandemic is the decline of overnight guests by approximately two thirds for the Canton. The tourism induced economic value from tourism diminished in the year 2020 by CHF 781 Mio. which corresponds to minus of 59% (BAK economics 2019:5).

Visitor segments (Share and/or numbers)
What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.
• The **country of origin** of visitors (of the overnight guests) of the City of Lucerne is mainly Asia (32%), followed by Switzerland (21%), USA (20%) and Europe (20%) (BAK economics 2021:13). • Even though generalisation of **guest behaviour** according to the respective country of origin is not possible, there are some tendencies (and also persistent prejudices) observable: Asian and American tourists travel mainly in groups, have only a limited time budget, but a high visitor spent. • In particular the Chinese are known for their penchant for luxury goods: Every third Chinese visitor buys a watch, which costs in average CHF 4'000 making the **Chinese the highest tourism spenders** with an average of CHF 450/day (Hanser und Partner 2015:19).
• Despite this dominance of group tourists, there are increasingly **"fully independent travellers" (FIT)** visiting from China. In a governmental founded research project lead by the Institute of Tourism and Mobility of the Lucerne University of Applied Sciences and Arts (HSLU) a joint venture of various local, regional, and national stakeholder was investigating on the potential on Chinese FIT. The research project unveiled interesting long-term perspectives of this segment which seem less obtrusive than group travellers (Stettler et al. 2020; UNWTO 2019:61).
• **70-80% of all Chinese group tourists visiting Central Europe are visiting Lucerne.** Increasingly group tourists are also staying overnight in Zurich or at a hotel close to Zurich Airport and are visiting various destinations in Switzerland (incl. Lucerne) for a day only. American group tourists are known for using river cruises (e.g., Amsterdam – Basel) and are visiting Lucerne pre- or post-embarkment (Entwicklungsplattform Luzern-Vierwaldstättersee 2019:30).

Temporal distribution/seasonality
When are the temporal peaks (if any)? How is the seasonal distribution of visitors? Explanation and numbers (if available)
• **Seasonal distribution:** Lucerne is most visited during the **summer months**, with peaks in July and August (Entwicklungsplattform Luzern-Vierwaldstättersee 2019:22). This is also true for tour coach movements which accumulate in the summer months. A report of PWC (2014) counts for 300 to 350 tour coach movement a day in these two peak months and additionally pinpoint the period of the Chinese New Year as a yearly spike.
• **Daily distribution:** During the week, most of the days have a similar pattern, regardless of the weekday. During the day, most of the tour coach movements take place between 3 and 7 PM, whereas the busiest time is between 5 and 6 PM contributing to 15% of the daily traffic. This equals around 49 tour coach movements per hour. This **uneven daily distribution** is ascribed to the itineraries of the travel groups, who generally visit a mountain destination (e.g., Rigi, Pilatus, Titlis) during the day and turn their interest to the city only in the (late) afternoon. Unfortunately, these itineraries collide with the evening traffic of the daily commuters and the local workforce, which lead to capacity limits on streets and causes traffic jams (PWC 2014:8).

Spatial distribution

What are the tourism hotspots? How is the spatial distribution of visitors?
Explanation and numbers (if available)

- **Most of the international visitors visit the city when they are in the region**. The preferred place to stay overnight in the region varies significantly according to the country of origin: 77% of the US-visitors staying within the city-perimeter, but only 35% of the Chinese and 38% of the Indian do so. The latter two prefer to stay overnight outside the city (Lucerne Tourism Board, Business report 2018).
- **Visitor flows** are accumulating mainly in the **historic town**, which is mainly for pedestrians only and offers many photo motives and shopping opportunities. In particular watch and jewellery stores are concentrated on Schwanenplatz and at the adjoint shopping-mile Grendel.
- However, watch and jewellery stores as well as souvenir stores are distributed in the entire **tourism perimeter** as defined in a study commissioned by the city government (ImmoCompass 2018). Within this perimeter also the two iconic sights, the Lion Monument and the wooden chapel bridge with its iconic water tower are located.

Additional tourism figures

Are there any other important numbers/aspects to understand the tourism situation in the destination?

- The official figures of GDP generated by tourism is at 3.4% in the Canton of Lucerne and 7.1% in the City of Lucerne. These figures include also indirect effects (e.g., suppliers who are not directly involved in the tourism industry). **The appraisal/classification of these numbers highly varies according to the standpoint of the stakeholder**, who comments on it. Whereas tourism supporters claim its significance and importance, others estimate them as neglectable or at least, as not that important as widely and persistently suggested. In their opinion, tourism is only one of many industries in the economic landscape of Lucerne, which though gets most of the medial attention (Eggli 2021:23).

3. Tourism management in the destination

Organisation of tourism & stakeholders

How is tourism in the destination organised? Which authorities are responsible for tourism?
Who are the central stakeholders involved in tourism management and development? What are the responsibilities of the different stakeholders?

Destination Marketing Organisation

- **Lucerne Tourism Ltd.** (Luzern Tourism Aktiengesellschaft, in short LTAG) is as the official DMO responsible to promote Lucerne as a tourism destination. The core shareholders are the industry association of Lucerne hotels (LUZERN HOTELS) and the Tourismus Forum Luzern (TFL), which together own 50% of the share capital.
- The total **share capital** is supplemented by three cooperation shareholders, eight major shareholders and twenty-one basic shareholders. The share capital amounts to a total of CHF 1.3 million.
- The **major shareholders** include Andermatt Swiss Alps AG, Bucherer AG, Bürgenstock Hotels & Resorts, Casagrande AG, Embassy Luzern, Grand Casino Luzern AG, Gübelin AG. The stock corporation thus is mainly alimented by large hotel cooperation (Andermatt Swiss Alps and Bürgenstock)

as well as watch and jewellery or souvenir stores (Bucherer AG, Casagrande AG, Embassy Luzern, Gübelin AG) (see https://www.luzern.com/de/ueber-uns/ueber-luzern-tourismus/)

Government/City administration

- **The City of Lucerne** also holds a stake of 1.5 percent of the share capital and claims a permanent seat on the company's board of directors (Stadt Luzern, Stadtrat 2020:5).
- The City of Lucerne holds a **performance agreement**, a so-called "Leistungsvereinbarung" which regulates the arrangement with LTAG. In this agreement economic, social, and ecological aspects are considered and must be reported by the LTAG to the city government on a regular basis by defined indicators.
- It regulates the **financial contribution** of the public authority of which the City of Lucerne contributes with CHF 460 000 a year (non-bounded) and CHF 90 000 bounded to congress activities. The current agreement for the years 2016 to 2020 has been extended until 2022, as the outcomes of the new "Vision Tourism Lucerne 2030" are not yet confirmed.
- The new performance agreement between the City of Lucerne and LTAG for the year 2022 to 2026 will respects the results of this participatory process, which will be looked in more detail in section 5 (solution approaches) of this report.

Civic organisations

- **IG Weltoffenes Luzern:** Interest group backing a liberal-minded and cosmopolitan Lucerne (https://www.weltoffenesluzern.ch/). This organisation is financed by the main tourism players and invests in a broader dialogue with the Lucerne population. It organises public gathering to discuss tourism issues, organises mobile feedback bicycles, to gather information of passers-by in the city centre and distributes public campaigns, such as distributing voucher booklets to all households in Lucerne.
- **Lucerne Hotel Association**: https://www.hotelleriesuisse.ch/de/regionen/zentralschweiz/zum-verband/sektionen/luzern-hotels
- **The Lucerne Gastronomy Association**: https://www.gastro-luzern.ch/gastroluzern/)
- **Lucerne trade and business association**: https://www.city-luzern.ch/),
- **Borough associations:** https://www.quartiere-stadtluzern.ch/de/verband-vqsl/
- **Political parties**

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g., masterplans)? Main instruments to steer development?

The central tourism organization is Lucerne Tourism Ltd., in short LTAG (see above). Its main tasks are to position Lucerne as a first-class destination and promote the authenticity and the sustainability of the tourist offer of the region. According to its mission statement, "the uniqueness of the Lucerne brand consists of the combination of the historic old town with the lake and mountain experience as well as the high-quality range of offers". Out of these attributes the claim "The city. The lake. The mountains." is derived. The vision of LTAG is, that the destination of Lucerne and Lake Lucerne is THE first-class adventure region in Switzerland (https://www.luzern.com/de/ueber-uns/ueber-luzern-tourismus/).

LTAG pursues a "premium" quality strategy with "Best of Class" is the leitmotif of all business activities. The following strategic goals support this endeavour:

- Strengthening the Lucerne brand, positioning it as a "premium" adventure destination
- Strengthening destination development and cooperation management

- Strengthening organization, first-class guest service, expansion of online marketing
- Development of the tourist destination of Lucerne and Lake Lucerne
- Better utilization in winter in the city of Lucerne
- Promotion of hospitality, service quality, intercultural competence, sustainability

LTAG operates in five business areas, which include (1) city experience, (2) mountain and nature experience, (3) premium business events, (4) wellness and wellbeing experience, and (5) active relaxation and lifestyle. It prioritises the following target markets: Switzerland, North America, Germany, Great Britain, China and considers India, Korea, Gulf States, Australia, Italy, Russia, Poland, Czech Republic, Netherlands, Brazil, Southeast Asia, Nordic countries as active and development markets (https://www.luzern.com/de/ueber-uns/ueber-luzern-tourismus/).

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers

What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (structural, internal, external)

The debate on overtourism in Lucerne is strongly linked to the tour coaches, which symbolise group tourism with a relative short duration of stay. These group tourists come from all sorts of countries; however Chinese and Indian visitors were dominating as source market (Stadt Luzern, Stadtrat 2019:40). **Group tourists visit only a very limited area of Lucerne,** mainly Grendel Street next to Schwanenplatz and the Lion Monument next to Löwenplatz. In particular group tourists from China spend a lot of their travel budget for watches and jewellery, but on the same time have only very limited spending on other items, such as food or accommodation. This one-sided consummation of the cityscape causes anger, anxiety, and concern among some of the residents, and they urge for other forms of tourism, which are more compatible with their personal activities and integrate better in city life (Eggli 2021:220).

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders?
Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

Infrastructure:

- **Road infrastructure:** Dominant use of public infrastructure (e.g., roads and parking space) by tour coaches.
- **Railway:** Occupied seats on scenic train routes also used by commuters (e.g., Lucerne – Engelberg, Lucerne – Interlaken, see Glaus 2019)
- **Touristification of infrastructure:** local shops have started to display signage in foreign languages, irritating some locals (eg in Chinese) adaption (e.g., local supermarket adapting to tourism needs)
- **Insufficient infrastructure for intensive tourism use:** (e.g., missing public toilets, bus stop shelter, garbage bins).

Environment:

- General strains for the environment due to **carbon emission** of international flights and local transportation.
- Specific burden for **local animals** (e.g., swans) which are intensively fed and photographed (and accordingly measures needed to be taken).
- Increasing **garbage** due to take-away food.

Economy:

- High **dependency** on luxury market (e.g., watch and jewellery business)
- **One-sided** distribution of benefits while democratizing the costs
- Alienation of traditional SME leading to a **monoculture** (souvenir, watch and jewellery stores).

Social environment:

- Alienation of local residents' trough intensive **touristification** of certain streets of old town (e.g., Grendel)
- **Missing mutual appreciating** of both locals and tourists
- No **social intercourse** due to limited duration of stay
- Limited language competences and different cultural backgrounds

Visitor experience:

- Degradation of visitor experience due to touristification (e.g., **loss of authenticity** of real Swiss watch stores, only designed for international customers)
- One-sided targeting of shops, restaurants, and others to tourism with negative effects on **price, quality and authenticity**
- **Decrease in value** of certain tourism activities, when overused by price-sensitive mass tourists.

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g., local population, visitors, small businesses, etc.)

Local population:

- Needs to share public space (streets and squares), public transports (train and buses) and locations of public interests (shopping centres, churches, markets etc.) with tourists. This may lead to **interest conflicts**, as using might pattern differ between the different stakeholders.
- Increasingly use of short-term rental apartments (e.g., via Airbnb) increasingly foster **concurrence on housing market** in some popular areas, which led to initiatives by the Social Democratic Party and the Tenants Associations (Wydler 2018, 2019). The problem though is not widely spread over the entire city (as it might be the case in other popular tourist cities) but exists in its infancy.

Visitors:

- Visitors interested in rather qualitative aspects of tourism (e.g., architecture, cultural heritage, museums, etc.) might feel **outnumbered and overruled** by visitors in the most frequented locations, who use Lucerne only as a short stop-over for a selfie-picture to buy souvenirs. Esteem of visiting Lucerne gets lowered by becoming a mass-tourism-destination.

Small businesses:

- Some small businesses (like independent souvenir stores) **gain benefits** from (mass-) tourism, while others are **negatively affected** by its side-effects (e.g., crowding out of regular customers, increasing rents by potential more lucrative tenants, pressure on opening-hours which are hard to handle for small independent businesses).

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

- Capacity challenges and main bottlenecks are to be found **principally at two central tour coach parking lots at Schwanenplatz and Löwenplatz**. Here, only limited space is available due to its location between the historic old town and the lake. Initiatives to transfer parking spots to the outskirts are opposed by the adjoint watch, jewellery, and souvenir stores (and other tourism-backers), as the easy accessibility is regarded as a main advantage point. High-investment solutions like new underground parking for buses or a metro-line are politically opposed and waived on public polls, as the costs are estimated as too high.
- However, the situation in Lucerne is not exclusively characterized by capacity challenges or bottlenecks as **the number of visitors is not the only challenge**. **It is rather about the different use of space and the cultural (mis-)understandings that go with it**. Further transformation of products and services lead to some extent a touristification of the city, alienating residents and visitors alike. This also leads to a feeling of many residents of selling the city's soul or not receiving the real value and appreciation Lucerne actually deserves.

Additional comments on the overtourism situation

Are there any other important aspects to understand the unbalanced tourism situation in the destination?

Tourism issues are dealt with in Lucerne intensively, controversially and with much verve. This may be because of its long touristic tradition or because of the intense entanglement of tourism with urban life. This in particular comes to light in the many cultural performances which deal with tourism. For example, the Kleintheater Luzern hosted a tourism comedy called "Visit Pyöngyang" in 2018, Le Théâtre im Gersag at Emmen hosted the musical "The Wonder of Lucerne" also in 2018 and the municipal Luzern Theater staged a piece called "Souvenir" in 2020 as a contemplation on tourism and the current pandemic situation in the city (Eggli 2012:164). Further to that many museums are holding exhibitions with a link to tourism, which is explicitly discussed in a part of the cultural performance. Such as the exhibition in the Historic Museum on Queen Victoria expressing appreciation of her five-week visit in 1868, or the 200th anniversary of the Lucerne Museum of Modern Arts which was celebrated by an exhibition on the British painter J.M.W. Turner, who strongly influenced Lucerne with his paintings, but was equally influenced and inspired in his own creative work by Lucerne and its surroundings. Or another exhibition in the Museum of Modern Art of contemporary photographer Tobias Madörin, who referenced and contextualised the paintings of the most famous Lucerne artist Robert Zünd (1827-1909) with his large-scale photographs (Eggli 2021:160). Further to that, also Lucerne's most popular heritage sight is reflected in art performances. In the honour of its 200^{th} anniversary of the Lion Monument in 2021 several art performances and interventions are taking place in its surrounding park and at Kunsthalle Luzern in the so-called L21 Festival (Eggli 2021:180). This wide array of cultural performances on tourism shows the high value of tourism to the City of Lucerne and the existing need to engage controversially with its development. **Tourism and city life is entangled closely with each other and thus discussing about the unbalanced tourism situation encompasses various political, economic, historical, and cultural aspects**.

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

Governmental bodies (i.e., the Lucerne City Government)

- A parliamentary motion (motion 159) of the green fraction (consisting of the young green party and the green party) has urged the city government in January 2019 to develop a tourism strategy. It calls the city government to elaborate in cooperation with the Lucerne Tourism Board and the broad public a **"tourism vision 2030":** "As part of the report, it must be discussed whether and, if so, which maximum values (apartments used for tourism, car parking spaces, hotel capacities) are to be determined. There are also possibilities to consider, how to control price (time; seasonal, time of day) and a spatially unbundling (e.g., relieving the concentration at Schwanenplatz/Grendel) (Bärtsch et al. 2017:1). The motion has been accepted by the City Government in January 2019 and will be answered in due course (by winter 2021).
- Another parliamentary motion addressing tourism issues is motion 264 of the Social Democratic/Young Social Democratic fraction, which has been issued in January 2019 with the claim "**Professional Airbnb: act instead of react"** (Studer et al.) and resulted in a monitoring system for short-term rentals to better oversee its development and examine potential measures to restrict such short-term rentals, like adapting the building and zoning regulations (Stadt Luzern 2019:60).
- The Inseli-Initiative of the Young Social Democratic Party (JUSO) called to **transform a tour coach parking into a public green park** which was adopted with 51.6% of the citizens of Lucerne voting for it (Weber et al. 2019:178).

Civil organisations

- The interest group (IG) Weltoffenes Luzern organises public gatherings to controversially discuss tourism issues, introduced a **mobile feedback-bicycle**, a so-called *Lozärner Feedbike*, which toured the city in summer 2019 and spent time in dedicated locations listening to pedestrians passing by.
- The organisation also distributed a **voucher booklet to all households** in Lucerne, allowing them to benefit more from the tourist infrastructure. The booklet includes for example two-for-one offers for excursions by cruise ships and funiculars, as well as discounts when buying products such as jewellery and chocolate. It also included free entry (sponsored by jewellery and souvenir stores) to some ice hockey and football games (Eggli 2021:21ff).

Tourism marketing organisation

- LTAG has developed several measures to better spread the visitors in time and space. Innovative aspects like the **"digital visitor card"** (https://www.luzern.com/de/services/gaestekarte-luzern/) and the **"data-cooperation project LUV** (Lucerne Vierwaldstättersee)" for the entire region are discussed below.
- But innovation is not only implemented in digital space, but also physically in the cityscape. The **Lilu Festival**, a yearly lightshow which takes place since 2019 in January, was founded by LTAG and LUCERNE HOTELS to revive the low season in the beginning of the year. The festival

illumines the facades of various buildings in Lucerne, such as the water tower of the chapel bridge, the townhall, historic hotels and churches and aims to attract cultural sensitive visitors (https://www.lichtfestivalluzern.ch/).

Innovative aspects

What are the unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

- **Tour Coach Parking App:** To better manage the tour coach parking space, the app "iparkiere bus" was launched in 2019 (Mathis 2019). This app shows in real time free parking space for tour coaches and indicates the direct route to reach them. (https://bus.iparkiere.ch/). In future, a reservation system could be implemented to allocate dedicated time frames for loading and unloading the guest and to park the tour coach within the city of Lucerne.
- **Digital Guest Card for overnighting visitors***:* The Lucerne Tourism Board launched in 2017 a free digital visitor card for all overnight guests (https://www.luzern.com/en/services/visitor-card-lucerne/), which provides free access to several WiFi hotspots dotted around the city, various discounts for mountain railways and excursions within the region and free public transport within the city perimeter. The offers provided help to spread visitors around the entire area and possibly allow in future for better knowledge of their completed itineraries.
- **Multi-stakeholder Data-cooperation project LUV:** Several tourism players join forces in an encompassing project to merge their visitor data to get a big picture of visitor flows, length of stay and spending patterns. The project is supported by governmental funds (SECO) and accompanied by the Lucerne University of Applied Sciences (https://www.hslu.ch/en/lucerne-university-of-applied-sciences-and-arts/research/projects/detail/?pid=4275).

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

The Lucerne Tourism Board reports to the Lucerne City Government on the basis of the adopted performance agreement on a regular basis. The agreed economic, societal and environmental objectives are made operational with concrete measures/activities and respective indicators. (Stadt Luzern, Stadtrat 2020:10)

1. Objectives in the economic dimension
1.1 Moderate growth in overnight stays with higher added value per guest
1.2 Ideal mix of guests to avoid dependency on individual source markets
1.3 Increase in the number of repeat guests
1.4 Increase in efficiency through targeted promotion of cooperation and use of synergies in marketing
1.5 Strengthening the regional economy by taking their products into account
2. Objectives in the dimension of society
2.1 Smoothing out demand peaks through better utilization of off-season and weekdays
2.2 Sensitization and motivation of tourism partners for social issues
2.3 Promotion of tourism awareness among the population through public relations
2.4 Consideration of guest groups with specific needs, e.g., promotion of accessible travel
2.5 Maintaining and communicating the culture, customs, and history of the region
2.6 Inclusion of the various stakeholder groups
3. Objectives in the environmental dimension
3.1 Increase in the average length of stay of guests

3.2 Promotion of environmentally friendly mobility by motivating guests to use public transport and climate compensation
3.3 Systematic consideration of the environment and sustainability criteria when designing the offer
3.4 Environmental management; operational commitment according to ISO 1004, motivation and support of employees, partners, and top performers

Further to that the City of Lucerne commissioned the University of Applied Sciences and Arts to conduct a representative survey with the Lucerne city population about their tourism awareness. The initial survey was carried out end of 2019 and will potentially be repeated in the years to come. The results support the City Government in compiling the "Tourism Vision 2030", as requested by parliamentary motion 159 of Bärtsch et al. 2019 (see above).

Challenges & success factors

What were the central challenges when planning, developing, and implementing the measures?
What were the central success factors when planning, developing, and implementing the measures?

Challenges: **Insufficient and inaccurate data**, which is impossible to add up cumulatively and not comparable over time.

Success factors: **Participatory process**, which includes a wide array of stakeholders and addresses to complex issues holistically.

Transferability to other destinations with similar characteristics

What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?

An open and transparent process builds trust with residents and tourism stakeholders. This is regarded as a key success factor.

In Switzerland the public can make use of various means to articulate their political will, such as with initiatives and referendums. This not only stimulates the debate but gives people the power to set the agenda and express their concern democratically.

A long-term perspective is needed when addressing tourism challenges, as there exist rarely a quick fix or an easy solution.

Systematic observation and monitoring of key performance indices (KPI) of tourism development led to a more objective and fact-based debate. Many prejudices are not backed up statistically and can be overcome by systematic measurement.

Additional comments on solution approaches

Are there other important aspects to understand the strategies/measures chosen?

6. Monitoring/indicators

Monitoring of overtourism situation
Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?
Apart from the *impact measurement* stated above (as part of the performance agreement between the City of Lucerne and the Lucerne Tourism Board), no holistic monitoring system has been set up yet. However, projects to do so are currently evaluated and a "data ecosystem for tourism" is aimed to set up with the support of the Lucerne University of Applied Sciences and Arts. As such a tourism cockpit needs to encompass a wider perimeter than the city itself, the entire "experience region Lucerne/Lake Lucerne" is involved in this project.
Indicators used
What are indicators used for the observation? Which indicators have proven successful?
The current project is still in its planning phase; but the following indicators are currently discussed for being measured. First and foremost, the project aims to better understand visitors flows by using big data. It aims to evaluate dependencies of weather, events, and further external circumstances. As tourism is not detached from other social, economic, and environmental phenomena, it is planned to integrate it in a broader context. Furthermore, innovative visualization techniques that make the data easily interpretable and allow to contextualize different scenarios are currently tested in a pilot project in the "Smart Region Lab" of the Lucerne University of Applied Sciences and Arts.
Specific indicators
Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?
The project aims to integrate a wide array of available data. Data from social media (e.g., Instagram, TikTok, TripAdvisor), roaming data from telecommunication companies (such as Swisscom), weather data, frequencies of tourism providers (such as cable cars, lake cruise ships, museums, and others), overnight statistics, payment data, and so on. By merging these different data sources, a "big picture" of the visitors flows, visitor's needs, and visitor behaviour will be elaborated. To reach this goal, a use case approach was chosen to establish step by step a relevant data ecosystem that grows from different use case applications stemming from the practice. These data driven use cases are elaborated conjointly with various tourism stakeholders in the region.
Challenges and success factors of the monitoring
What are the challenges and success factors of the monitoring system/the indicators?
Challenges: • Availability of the data, • privacy and data protection, • costs to gather and interpret data.
Success factors: • Integrative approach encompassing all relevant stakeholders over a broad perimeter (not focusing on one destination only), • triangulation of different sources (personal, institutional, governmental, etc.) • accumulation and comparison of data over time,

- modelling of (anticipated) scenarios depending on different external sources,

Additional comments on monitoring/indicators: Are there other important aspects regarding the monitoring?

The data basis of the current pilot project is a representative Swiss panel from Intervista (2021) in which 1’066 (2019) and 2’060 (2020) persons in the age between 15 to 79 years were taking place to gain a better understanding of the tourism behaviour of the domestic market. The currently available data to the project team is from 2019 and 2020, which made it possible to trace back the effects on COVID-19 on the movement and travel behaviour of the participants. Similar results are intended to achieve by triangulating big data of all represented visitors (incl. international) in the region.

7. Management of the pandemic

Changes due to the pandemic

What has changed due to the pandemic? How has the pandemic influenced the tourism development?
How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?

As already stated in point 2 (tourism development) the tourism induced economic value added diminished in the year 2020 due to the pandemic by CHF 781 Mio. which corresponds a minus of 59%. In the City of Lucerne, the decline was even more severe, where tourism induced economic value added only accounts for a fourth of the preceding year (BAK economics 2019:5). This though has not affected the City Government’s plans in elaborating a “Tourism Vision 2030” and follow strategically a more sustainable tourism development of Lucerne.

Additional comments

Are there other important aspects regarding the pandemic?

8. Outlook & Additional Comments

Expected future changes

What are the expected changes in the future tourism development? What are the plans for post-covid tourism?

The results of the “Tourism Vision 2030” are not published yet and need to go through the political process, including a parliamentary discussion.
The effects of the pandemic of tourism awareness are rather ambiguous. On one hand, the pandemic showed the limits of tourism growth and the high dependency on certain visitor segments (Eggli 2021: 153), on the other hand it made people also aware of the benefits tourism brings to the city (ibid.: 154). A repetition of the representative survey with the Lucerne city population about their tourism awareness, as conducted in 2019 by the University of Applied Sciences and Arts would further clarify on the effects of the pandemic on the tourism awareness of the Lucerne people.

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

It remains unclear if the pre-covid forms of touring Europe in groups are re-bouncing, or to what extent the current crisis has changed customer needs and travel aspirations. Also, travel restrictions within the countries of origin still constitute a relevant risk for future planning.

Further to that, a main motive of Chinese tourist to visit Switzerland is to buy an original Swiss watch as a souvenir or as a gift/investment for people at home. This is not only to be traced back on the unique setting and unforgettable experience of buying a forgery-proof watch in Switzerland, but also to the luxury tax of up to 50% which the Chinese government imposes on certain luxury goods (Stettler et al. 2020:8). Changes of such taxes may affect future visitors flows, as well as amendments in visa regimes.

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

Overtourism might be a new term, but far from a new phenomenon. Questions about the right form of tourism development are as old as tourism itself. It remains crucial within this discussion, not to reduce tourism to mere visitor numbers, but to comprehend its encompassing social, cultural, political, economic, and ecologic dimensions. By only focusing on capacity limits, the debate does not meet the complexity of the challenges which tourism impose. The debate on overtourism should accept the entanglement of tourism with all sorts of aspects of urban life and regard conflicts as constitutive and productive parts thereof.

Additional comments

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Interview with representative of the City of Lucerne on July 7, 2021

Vienna

1. General Information about the destination

Case study item	Information	Data source
Destination name	Vienna	https://www.wien.info/en
Destination type	Urban	
NUTS 3 Level	AT130	
Country	Austria	
Region	Vienna (AT13)	
Tourist area size (km2)	414.82 km^2	*Statistik Austria. (2021). Gliederung Österreichs in NUTS-Einheiten: Gebietsstand 1.1.2021.* https://www.statistik.at/wcm/idc/idcplg?IdcService=GET_PDF_FILE&RevisionSelectionMethod=LatestReleased&dDocName=023722
Population		
inhabitants in destination	1 920 949	*Statistik Austria. (2021). Gliederung Österreichs in NUTS-Einheiten: Gebietsstand 1.1.2021.* https://www.statistik.at/wcm/idc/idcplg?IdcService=GET_PDF_FILE&RevisionSelectionMethod=LatestReleased&dDocName=023722
inhabitants in tourist centre/core area	16 047 (1st district, city center)	*MA 23. (n.d.). Bevölkerung nach Bezirken 2005 bis 2020 [Data Table]. Stadt Wien.* https://www.wien.gv.at/statistik/bevoelkerung/tabellen/bevoelkerung-bez-zr.html
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	2019: Total contribution of travel & tourism to GDP: 11% of total economy (44.2bn EUR) 2020: Total contribution of travel & tourism to GDP: 6.6% of total economy (24.5bn EUR)	https://wttc.org/Research/Economic-Impact

	2019: Total contribution of travel & tourism to employment: 11.7% of total employment (529.7 thousand Jobs) 2020: Total contribution of travel & tourism to employment: 10.9% of total employment (485.5 thousand Jobs)	
Importance of tourism in destination (GDP, employees)	Gross Regional Product (GRP) in Vienna for tourism only (direct and indirect) excluding leisure industry: 4 billion Euro Employees in accommodations and food services: 50,306	https://b2b.wien.info/de/presse/unternehmens-presse-info/strategie2025-360226 https://www.wien.gv.at/statistik/pdf/jahrbuch-2020.pdf
tourist arrivals in destination (2015-2019)	2015: 6.589.031 2016: 6.883.512 2017: 7.099.233 2018: 7.539.810 2019: 7.926.768	https://www.wien.gv.at/statistik/pdf/jahrbuch-2020.pdf
overnight stays in destination (2015-2019)	2015: 14.328.261 2016: 14.962.438 2017: 15.512.730 2018: 16.483.497 2019: 17.604.573	https://www.wien.gv.at/statistik/pdf/jahrbuch-2020.pdf
day visitors, park entrances, cruise arrivals etc.	4.3 million visitors to Schönbrunn palace (2019) 2.3 million visitors at Schönbrunn Zoo 6.9 million visit0rs to federal museums 535,000 Cruise passenger arrivals (2019) There are no statistical data on day visitors available.	Schoenbrunn_Group_Unternehmensbroschuere_DE_2020.pdf (schoenbrunn-group.com) https://www.vienna.at/tiergarten-schoenbrunn-in-wien-zog-2019-mehr-besucher-an/6503522 https://www.bmkoes.gv.at/Service/Publikationen/Kunst-und-Kultur/kunst-und-kulturberichte.html https://www.viadonau.org/fileadmin/user_upload/Annual_Report_on_Danube_Navigation_2019.pdf
% tourism growth over the last 10 years	2009-2019: Arrivals: +81% (+3 541 239) (2009: 4 385 529) Bednights: +79% (+7 761 746) (2009: 9 842 827)	https://b2b.wien.info/de/statistik/daten/ankuenfte-naechtigungen-2009-339114

	The average annual growth rate lies at approximately 6% for both figures.	

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available (see also spatial distribution, p. 8)
9.3 overnights per resident

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)
42 434 overnights per km^2

Short Description of the case (max. 250 words)

Short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

In Vienna, the problems related to overcrowding are not as severe compared to other European cities such as Venice, Prague, Florence, Barcelona or Amsterdam. However, during seasonal peaks and in the most popular attractions, overcrowding and negative tourism perceptions could be observed (Füller and Michel, 2014).

The following challenges can be identified:

- ***River cruises* running from Amsterdam to the Danube Delta** in Romania and Ukraine call at two different locations in Vienna (Reichsbrücke and Nussdorf). The number of river cruises continued to increase in 2019, with a year's record with around 535,000 passengers (+15.1% compared to 2018) (ViaDonau, 2020). Tomej (2017) investigated the seasonal and spatial distribution of cruise tourists. His research revealed the months May to October as the busiest months, while in January and February no cruises were recorded. Most cruise passengers participate in organized guided city tours following classical routes and passing a short list of the most popular sights. Not only spatial but also temporal concentration (most of the city tours take place between 8:30 and 11.30 am) lead to potential crowding along these routes or at the chosen attractions.

- ***Christmas markets****:* In 1986, the expansion of Christmas markets started turning the pre-Christmas period from off-season to high season for Vienna's tourism industry. During the last 10 years, the number of bednights in November increased by 93% from 2009 – 2019 (0.7 million to 1.4 million bednights) and in December by 89% (from 0.9 million to 1.7 million bednights), while annual bednight numbers only increased by 79% in the same period (https://b2b.wien.info/de/statistik/daten/ankuenfte-naechtigungen-2009-339114).

- ***Tourism attractions* concentrated in specific areas** (i.e., Historic City Center, Schönbrunn Palace and Park, Schönbrunn Zoo, and the Aqua Terra Zoo) and thus put pressure on these areas.
  Most visited attractions:
    - The most visited attraction in Vienna is the *Schönbrunn Palace* and its affiliated attractions. The visitor numbers increased steadily and amounted to about 4.25 million admissions in 2019 (Schönbrunn Group, 2020) with a peak in August and a low in February. The most frequented hours are usually between 9:30am and noon. Schönbrunn is located 7 km away from the city center but is well connected to public transportation (subway U4). 40% of the visitors are booking their trips and tickets via a travel agency. Thus, the most frequented mean of transportation is the bus. The Schönbrunn Palace also offers event facilities in its premises and the management organizes events itself, such as daily concerts in the Orangery, or the Summer Night Concert in the Park. In 2016, 100,000 visitors came to the Summer Night Concert,

which set a visitor record. Because the maximum capacity of 100,000 visitors was reached, it became necessary to close the park entrances. The high number of visitors sometimes leads to overcrowding. A survey monitors visitor satisfaction. The carrying capacity of Schönbrunn Palace is 1,000 visitors per hour, and many visitors have to wait for 3-4 hours in order to get in. In 2016, only 7% of the entry tickets were sold online, even though it was possible to pre-order the ticket and to book a certain time slot for the visit (Gula & Lund-Durlacher 2017).

- *Schönbrunn Zoo* (https://www.zoovienna.at/ueber-uns/tiergarten-schonbrunn/) was established in 1752. It is the oldest zoo in the world and one of the top 5 attractions in Vienna. Since 2006, over 2 million visitors visit the zoo every year. In 2019, there were 2.3 million visitors in the zoo. The peak month is August, the lowest month January. The visitor numbers dropped in 2020 to 1.2 million. The Schönbrunn Zoo is an "open" attraction and in contrast to the Schönbrunn palace, its carrying capacity is not that limited. However, there are a few negative aspects considering the high volume of visitors in the zoo, such as the waste production. Occasionally, some issues with the high volume of visitors can arise, especially in the peak times. Some individuals complain that there are too many visitors in the zoo, others consider the high volume of visitors as part of the experience (Gula and Lund-Durlacher 2017).

- *Aqua Terra Zoo* (https://www.haus-des-meeres.at/en/Visitor-Info/General-Information.htm) was established in 1957 and is one of the top-rated attractions in Vienna. Visitor numbers have increased due to a general increase of tourists in Vienna and new investments, such as adding a new attraction, the so-called "Atlantic tunnel", in December 2016. In 2019, a new record high of 650,000 visitors was recorded (https://www.haus-des-meeres.at/en/About-Us/News/iNewsId 706.htm). The peak month is August, the lowest month is March. The Aqua Terra Zoo can be described as a "closed" attraction. The carrying capacity of the tower is limited to 600 people (Gula & Lund-Durlacher 2017).

Additional general remarks

Based on UNWTO's definition of overtourism the Vienna tourist board defines 'overtourism' using a qualitative subjective approach which is primarily based on the subjective perception and opinion of residents and tourists.

For years Vienna acted proactively towards crowding and overtourism. Through consistent stakeholder monitoring and dialogue, problems are identified at an early stage and solutions are put in place to avoid negative perceptions of tourism among tourists and residents.

2. Tourism development

Tourism Development

How has tourism developed (in the last years before the pandemic)?

Tourist arrivals and bednights have increased continuously over the past years with a record high in 2019 (17.6 million bednights). According to the benchmarking report by European Cities Marketing (2020), Vienna ranks eighth in terms of total bednights. Among others, more flight connections and seat numbers, which have been added to the flight schedule of Vienna International Airport, as well as increased competition among low-cost carriers contributed to the increased number of overnight stays (Vienna Tourism Board (n.d., a). The total *number of people transported to Vienna International Airport by plane* in 2019 (15.776.153) increased by 75,1% with respect to 2009 (9.009.250). The average yearly growth rate over this period is 5.9% (Eurostat 2021).

During the past 10 years the *number of hotels* increased from 409 in 2011 to 422 in 2019 (+3%), whereas the *number of beds* increased by almost 29% during the same period. In 2019, bed capacity in Vienna amounted to 68,200 hotel beds, with 162 beds per accommodation/property on average. The bed occupancy rate increased to 61.9% in 2019 (2018: 60.2%), with a room occupancy rate of around 80% (2018: around 78%). In 2019, net revenue from overnight stays amounted for the first time to more than 1 billion Euro. Tourism has a significant economic impact and creates year-round *jobs*. Every 9th job in Vienna (10.9% or about 116,500 jobs) is directly or indirectly related to the tourism and leisure industry (Tourism Satellite Account Employment Module for Vienna, reporting year 2017).

The *Vienna meeting industry* is an important part of the Viennese tourism industry and generated about 1.6 million overnight stays in 2019 (9% of all overnights in Vienna). Vienna's meeting industry created around 17.3 thousand year-round jobs nationwide (Vienna Convention Bureau, 2020).

What has changed due to the pandemic?
After 2019 being the most successful year for Vienna's tourism industry, 2020 was the worst since the second world war with the number of bednights going down to the levels of the early 1980s. In 2020, tourist arrivals dropped by 74.7% to 2 million, bednights by 73.9% to 4.6 million. The net revenue from overnight stays dropped by 76.6% to 239 million. Considering bednights, Austria (1.28 million) and Germany (1 million) were by far the most important source markets, followed by Italy (0.19 million). Most arrivals and bednights were generated in January and February 2020 prior to the 1st nationwide lockdown. Very few arrivals were recorded from mid-March to May, November and December 2020 (2nd lockdown) (https://geschaeftsbericht.wien.info/en-us/article/wiens-tourismus-in-zahlen). In financial terms, Covid-19 reduced the economic impact of tourism by 70% to 1.2 billion Euro, which otherwise amounts to around 4 billion per year (Austrian Institute of Economic Research (WIFO) cited in https://geschaeftsbericht.wien.info/en-us/article/vorworte.
The meeting industry was hit the most by Covid-19, too. The vast majority of the congresses, corporate events and incentives planned for 2020 had to be cancelled, postponed or held in virtual form without on-site participants. Therefore, the number of events dropped from 5,490 in 2019 – to 1,537 (down 72%) in 2020. The number of participants at these meetings decreased to around 121,000 (down 80%), and the number of overnights associated with them to around 265,000 (down 83%) (https://geschaeftsbericht.wien.info/en-us/article/meetingmetropole-wien).

Short description of recent developments

During the Corona pandemic, the Vienna Tourist Board introduced a *task force* and a *multi-level reactivation plan* enabling a fast response to changing environments.
For the Viennese tourism industry stakeholders, know-how transfer and dialogue were provided. Among the most *significant services* are:
- *Dashboard with market research data,*
- *Guidelines and safety concepts for the industry,*

- *Experience edition of the Vienna City Card,*
- *Ivie the digital city guide of Vienna tourism*
- *Vienna Visitor Economy Series (Dialogue platform).*

Market Monitoring Dashboard
In May 2020, the Vienna Tourist Board introduced a dashboard tool (German only) which provides an overview of the current situation and prospective travel demand for 28 incoming markets including information such as travel restrictions, economic forecasts, and transportation options. The dashboard is regularly updated and free to access at https://b2b.wien.info/de/reisebranche/vienna-open-now/marktbeobachtung/dashboard-marktbeobachtung-344168.

Vienna City Card Experience Edition
In August 2020, the Vienna City Card Experience Edition targeting local residents and frequent visitors was introduced to generate revenues at locations that are usually visited by tourists. The card gives holders access and discounts to more than 160 out-of-the-ordinary experiences (tours and workshops), and 20% off at selected restaurants in the city (https://experience.wien.info/).

Ivie digital city guide
Ivie is a free city guide app for smartphones, which includes themed walks, information on city life in Vienna and many tips and stories about sites and attractions. The Vienna experience card is included in this app https://www.wien.info/en/travel-info/mobile/ivie-app-349196.

Vienna visitor economy series (Dialogue platform)
The Vienna Visitor Economy Series events were launched in fall 2020. They provide a dialogue platform for the stakeholders of Vienna's tourism industry. Sharing information and discussing the evolution of the city´s tourism strategy with industry stakeholders is the focus of this platform (https://b2b.wien.info/en/travelindustry/vienna-open-now).

Visitor segments (Share and/or numbers)

What are the main visitor segments?

Main countries of origin (Arrivals and bednights in Vienna in all types of accommodation January – December 2019)	**Arrivals**	**2018 +/- %**	**Bednights**	**2018 +/- %**
Germany	1 387 056	4,9	3 360 122	6,4
Austria	1 650 439	0,1	3 045 531	1,6
USA	441 787	6,9	1 032 233	7,5
Italy	327 439	10,5	836 572	12,6
UK	317 039	-2,7	736 342	-2,9
Spain	266 483	21,2	650 024	25,1
China (incl. Hongkong)	283 240	3,6	523 633	3,3

France	199 826	11,3	511 443	10,0
Russia	188 023	4,5	464 194	2,3
Switzerland	189 356	3,5	458 217	3,9

Source: https://b2b.wien.info/de/statistik/daten/statistik-aktuell-360128

Regarding previous stays in Vienna, 46% of the visitors are first time visitors, 30% irregular visitors, 24% regular visitors (https://geschaeftsbericht.wien.info/en-us/article/wie-tickt-der-wien-gast).

What are their motives?

74% of visitors cite sights and culture as their reason for travelling to Vienna.
90% of visitors would recommend Vienna as a holiday destination.
49% of the guests perceive Vienna as a safe city, which is also enjoyable (43%), hospitable (41%), cosmopolitan and traditional (40% each) as well as diverse (38%)

Guest behaviour?

46% of the guests are first-time visitors. 11% visit Vienna several times a year.
The most frequent tourist activities in Vienna are visiting sites (86%), walking around (74%), going to a restaurant (59%), visiting museums and exhibitions (58%), going to a coffee house (50%), tasting local food and beverage (44%), and shopping (34%).
Guests are overall very satisfied with their stay in Vienna (mean = 1.68, on a scale from 1 = extremely enthusiastic to 6 = rather disappointed). Townscape, architecture (1.44), sights and attractions (1.49), natural attractions (1.51), public transport in the city (1.53), safety and security (1.55), and art and cultural offer (1.57) score the highest (https://b2b.wien.info/resource/blob/323920/40ef77437fde47c6d3591e13184c9128/t-mona-ergebnisse-en-data.pdf).

Characteristics, share of international visitors etc.

According to the surveys of T-Mona in the tourism year November 2018 to October 2019, the typical Vienna guest is 46 years old, employed, educated (68% higher education), arrives by plane (45%) and travels primarily as a couple (38%). (Detailed information on https://b2b.wien.info/resource/blob/323920/40ef77437fde47c6d3591e13184c9128/t-mona-ergebnisse-en-data.pdf).

In 2019, 79% of the total visitors in Vienna arrive from abroad, of which 55% arrive from Europe, 8.2% from America, and 13.7% from Asia. 21% are domestic visitors (https://b2b.wien.info/de/statistik/daten/naechtigungen-2019-353494). Around 83% of visitor overnights in Vienna in 2019 were accounted for by international guests.

Temporal distribution/seasonality

When are the temporal peaks (if any)? How is the seasonal distribution of visitors?
Explanation and numbers (if available)

The figure below shows that arrivals and bedights in Vienna were above average in 8 of 12 months in 2019 (Ferrari, 2021).

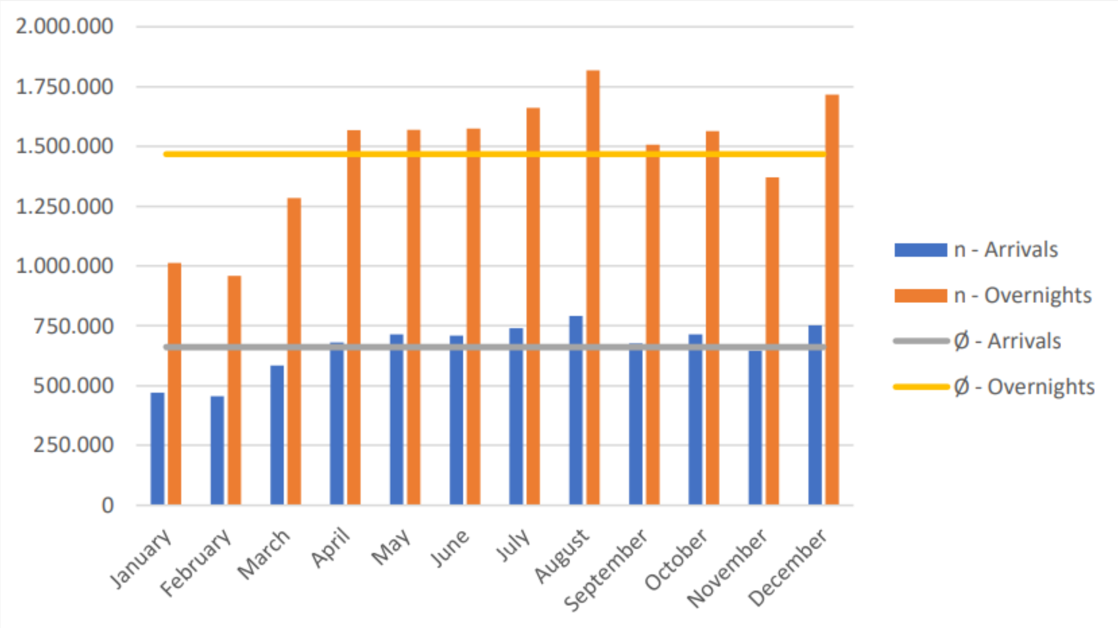

Figure 1: Number of arrivals/overnights per month in 2019 (Ferrari, 2021)

Considering arrivals and overnights in 2019, July, August and December can be considered high season, whereas January and February can be seen as low season.

Spatial distribution

What are the tourism hotspots? How is the spatial distribution of visitors?
Explanation and numbers (if available)

In 2019, Vienna had a *tourism intensity* (number of overnights per resident) of 9.3. This figure increased from 5.9 in 2009 to 9.3 in 2019 (+58%). Vienna *tourism density* (number of overnights per square kilometre) was 42,434 in 2019, which is 79% higher than in 2009 (23,725). The highest values of tourism intensity and density can be found in the 1st district (191.3 intensity; 1.09 million density), the 7th district (37.5 intensity; 752 thousand density), and the 6th district (22.8 intensity; 499 thousand density) (Ferrari, 2021). These are smaller districts with attractive tourism infrastructure (accommodation, gastronomy, attractions).

3. Tourism management in the destination

Organisation of tourism & stakeholders

How is tourism in the destination organised?

In Austria, tourism is regulated by the federal states (Vienna is both a city and a federal state), and as such the most important law that regulates the promotion of the Viennese tourism industry is the "Vienna Promotion of Tourism Act" (Wiener Tourismusförderungsgesetz, WTFG). (https://www.wien.gv.at/recht/landesrecht-wien/rechtsvorschriften/pdf/w1200000.pdf). In 1955, the city of Vienna established the Vienna Tourist Board (VTB), which serves as the destination marketing and management organization for the city´s tourism industry.

Which authorities are responsible for tourism?

The *Vienna Tourist Board (VTB)* is the central body for tourism in Vienna. The VTB is governed by three bodies:
- *President* (nominated by the federal government of Vienna)
- *Managing Director*
- *Supervisory Board* (Tourism Commission) including members who are appointed by the federal government of Vienna, the Vienna Economic Chamber, the Vienna Chamber of Labour and the Vienna Chamber of Agriculture (https://geschaeftsbericht.wien.info/en-us/article/struktur--budget).

Who are the central stakeholders involved in tourism management and development?

Central stakeholders are all stakeholders that are at the core of the tourism offer and along the tourism value chain, such as accommodation providers, transportation, event organisers, cultural institutions and creative businesses (interview).
Among the central stakeholders mentioned there are:

- Vienna Tourist Board and Vienna Convention Bureau,
- Vienna municipal politics and municipal administration city-owned companies,
- Interest groups (Vienna Chamber of Labour, Vienna Chamber of Commerce, etc.)
- Accommodations
- Meetings and Events
- Art, Culture & Sights
- Retail, Food & Beverages
- Mobility Providers

(Vienna Visitor Economy Strategy 2025, pp. 22-23).

Is there a monopolisation/dominance of certain businesses?

What are the responsibilities of the different stakeholders?

All stakeholders are invited to participate in dialogue processes and open communication platforms to get involved in the tourism development and planning process.

Tourism organisation(s)

Is there a central tourism organization?

The Vienna Tourist Board (VTB).

What is their mandate?

According to the "Vienna Promotion of Tourism Act" (WTFG), the VTB shall **promote tourism in Vienna** and **represent the interests of the city of Vienna** in the field of tourism (https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrW&Gesetzesnummer=20000355).

- The VTB shifted from a destination marketing organisation to a **destination development and management organisation** in close cooperation with the city government.
- The VTB aims to **offer visitors high-quality experiences** in the city, while ensuring that **tourism adds value for residents**. This involves close cooperation with stakeholders in the industry as well as with visitors and residents.

Main instruments to steer development?

- In 2017, the Vienna Tourist Board created a new **destination management department**, which acts as a centre of competence and which strengthens networking with all stakeholders of the visitor economy (Representatives of the Vienna Tourist Board, 2019).
- The Vienna Tourist Board has established **discussion forums** for information sharing, reflection, and strategy development at various levels. Participation in these facilitated dialogues is open to anyone wishing to work on fulfilling the vision.
- The VTB's *Shaping.Vienna.Info website* (https://shaping.vienna.info/en-us/home) and the *B2B Services Website* (https://b2b.wien.info/en) are the central **destination management communication platforms** which allow to share information and give stakeholders the possibility to make suggestions.
- **Surveys of visitors and Viennese residents** give regular indicators of sentiment and provide information on specific requirements and issues. Important customer touch points are specifically analysed to continuously improve offerings and services (https://b2b.wien.info/en/strategy-brand/tourism-strategy/visitor-economy-strategy2025-364600). The results of surveys and research are presented and available on https://b2b.wien.info/en/statistics.

Strategic orientation?

- The Vienna Visitor Economy Strategy 2025 aims to promote
    - quality of life for residents,
    - quality of experiences for visitors, and
    - quality of place through diverse offerings (https://b2b.wien.info/en/strategy-brand/tourism-strategy/visitor-economy-strategy2025-364600).

- The Visitor Economy Strategy is based on three fundamental *values*:
  - Premium: Vienna is committed to deliver premium quality,
  - Cosmopolitan: Vienna is committed to open-mindedness, diversity, and tolerance, and
  - Digital: Vienna focuses on innovation and the latest technology with an approach to digital humanism.
- Vienna's visitor economy is also committed to the World Tourism Organization's "UNWTO Global Codes of Ethics for Tourism", the fundamental principles of the Smart City Vienna framework strategy, and the achievement of the UN's Agenda 2030 by contributing to the "Sustainable Development Goals" 4, and 8-13.

Policies and instruments

Core management and marketing activities (https://b2b.wien.info/en/strategy-brand/tourism-strategy/visitor-economy-strategy2025-364600):

- **Place making and place marketing:** Creation of attractive, high-quality experiential spaces **for residents and visitors.**
  - **Upgrades to public spaces**, traffic-calmed zones with a focus on pedestrians and cyclists.
  - **Safeguard the quality of public spaces for visitors and residents:** Monitoring and balancing street trading, downmarket sales kiosks and transportation, such as bicycle taxis, Segways and electric scooters.
  - **Extent tourism throughout the city:** Development of attractive offerings that extend to all parts of the city to better distribute the positive effects of tourism and avoid localized stress factors, in partnerships with Vienna's urban planners and districts.
- **Observing capacities and their limits:** carefully managing resources and raising awareness among visitors.
- Offer **information services and guidance to visitors and temporary citizens**, which should be able to better orient themselves and participate in the life of the city.
- **Cooperative destination marketing:** working with all partners to define specific focuses. Offerings that drive the phenomenon of unchecked mass tourism will neither be promoted nor marketed.
- **Meeting destination Vienna:** The congress and business events industry to be increasingly used in the future to boost the international visibility and competitiveness of the city as a business location.
- **Smart solutions:** The sustainable use of natural resources to be promoted, and smart solutions to be developed to ensure that the destination will continue to offer a high quality of life to future generations (Vienna Tourist Board 2021).
- The Vienna Tourist board also focuses on **Rail Service Development** which aims to increase the number of people who travel to the city by train and to position Vienna as a NightJet hub: According to UK daily newspaper The Guardian, Vienna is the best-connected city by rail in Europe in 2020 (https://www.theguardian.com/travel/2019/dec/12/best-new-european-rail-journeys-2020-vienna-brussels-berlin).

Additional comments:
Are there any other important facts to understand the tourism management in the destination?

In 2016, a new, distinctive positioning of Vienna and a new brand identity was created. The **brand core** is "Encouraging Enjoyment" (Vienna Tourist Board, 2016).

Target visitors according to the Vienna Visitor Economy Strategy 2025: Visitors who will engage most with Vienna as a quality destination with a premium offering, who respond best to its sustainable development ambitions, and who can make a contribution to the city's qualities through their cultural diversity and behaviour (Vienna Tourist Board 2021).

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers

What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)

- Urbanisation, globalisation.
- Accessibility (travel is possible for a wider population), Low-cost flights (e.g., Level, WizzAir, Ryan Air, etc...).
- Positioning of the destination, its infrastructure, the tourism structure, the stakeholders and the management of the destination ("the tourism offer must fit the destination").
- Mass media (e.g., media reports on overtourism influence the perception of the audience in a negative way). Until now, Vienna has always been ranked very well in international rankings (https://geschaeftsbericht.wien.info/en-us/article/wien-im-internationalen-vergleich).
- The importance of the tourism sector in the overall destination economy. (If tourism's share in the overall economy is high, tourism will be perceived more positively and vice versa). (Interview)

General remarks:

- Overall, overtourism is not seen as a significant problem in Vienna. Considering the VTB's definition of overtourism (based on UNWTO's definition) – "the quality of life of the population must be balanced with the quality of experience of the visitors" – there is a good balance, which is monitored by regular surveys.
- In the context of overtourism, it is important that stress situations alternate with relief situations. In Vienna, there are seasonal peaks, followed by quieter times. In addition, there are many alternative locations to avoid the crowded places.
- It is important to identify structural issues in the city (e.g., inadequate parking) and pain points of residents and tourists (Interview).

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders?
Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

Many impacts can be described as structural in nature (Interview):

- Two Danube **cruise ports have insufficient management standards** causing noise among others.

- The infrastructure of the Danube port Reichsbrücke has **exceeded physical capacity**, creating further issues with local residents recreating in the area.
- **Poor and inadequate parking facilities** for buses.
- **Isolated value chains**, such as cruises or parts of the travel group business which cause leakage.
- **Mismatched infrastructure and tourism demand** (e.g., number of bus tourists in Grinzing vs. sanitary facilities).
- Crowding at **Christmas markets**, which reduces the visitor experience.
- **Tourist Coach Busses** which is rather a problem of visibility and perception ('each bus is an enemy') than a carrying capacity problem.
- Situations in which the Viennese feel **disturbed in their usual daily routine** (e.g., full grocery shop at lunch time, groups blocking the cycling route, noise and crowding in the subway, etc).
- Situations in which **tourist business is done at the expense of the Viennese** (e.g., aggressive selling of tourism products like Mozart concert tickets). Residents do not identify themselves with the product and feel under pressure.
- Situations in which tourism **interferes with the retreat space of residents** (e.g., private accommodation rentals (sharing economy)) The invasion of tourism into the private habitat of locals is seen as the biggest problem.

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g., local population, visitors, small businesses, etc.)

Local residents feel primarily affected by increased crowding and congestion. In the meanwhile, some hotspots tend to be avoided (e.g., Christkindlmarkt at Rathausplatz). Gentrification of certain urban areas can be observed, in part due to short-term rentals (Airbnb) (Interview).

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

- In Vienna, there are few capacity problems due to the spatial concentration of tourists at some central sights, the cruise port and coach bus parking in high seasons.

Additional comments on the overtourism situation

Are there any other important aspects to understand the unbalanced tourism situation in the destination?

Certain traditional Viennese places have become almost only visited by tourists (e.g., Sacher, Landtmann, etc…) and local residents are confronted with crowed places. There are also businesses in Vienna that specialise in high-frequency tourism and offer products that are sometimes more expensive and thus "make money" at the expense of tourists (the traditional establishments Sacher and Landtmann are not among them) -> labelled as "touristy" (rip-off $$$).
The Vienna subway system is a limiting factor that needs to be taken into account in tourism development (e.g., tourists using the underground could put pressure on the underground system) (Interview).

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

Vienna has a **proactive approach** to address overtourism. Among the major measures are:

- **Maintaining a positive tourism attitude among residents**. One of the main instruments to proactively address the issue of unbalanced tourism is the ***Residents' attitude survey***. First introduced in 2006 and permanently established in 2017, the Vienna Tourist Board monitors the residents' attitudes on a monthly basis in a representative survey (300 computer-assisted interviews per month), which also allows for open positive and negative feedback and suggestions for improvement (Representatives of the Vienna Tourist Board, 2019). The residents' survey is considered a very good instrument to influence political discussions and decisions about tourism development.
- **Creating new tourism spaces** (e.g., Belvedere and Sonnwendviertel) VTB is aware that new offers might attract new visitor segments and not distribute the current tourists to other places.
- **Year-round off-season cultural and event program:** by getting art and cultural institutions and other stakeholders to coordinate more closely, the whole year should become high season for events and cultural highlights – cutting overcrowding in peak times for tourism.
- **Shaping the city's living space** in a way that residents, visitors and other stakeholders can best co-exist in an **inclusive city**.
- To **target appropriate markets** that match the city's DNA and offers.
- **Advertising and promotion.** There is an attempt to present Vienna off the beaten track.
- **Dialogue with all stakeholders** (e.g., to improve the cruise situation).
- **Limited contingent of entry tickets to the city for coach busses** at high season (e.g., advent). A **digital coach bus management system** is in the pilot testing phase.
- **Collaboration between VTB and city government** constitutes the central point in managing a balanced tourism especially in regard to structural problems that lie in the sphere of competence of the city of Vienna (e.g., legislation). This cooperative approach
- **Visitor management measures:**
    - The **app Ivie** allows tourists to better allocate their activities during their stay by showing visitor levels (from Google) at attractions.
    - **Traffic light system** to indicate a limited visitor capacity. Due to the Corona pandemic, the Vienna ice-skating rink (Wiener Eislauf-Verein) and some swimming pools had a traffic light system in place. In combination with online ticket sales, this is a good instrument to control visitor numbers.
    - **Dynamic pricing techniques**. Some museums are testing dynamic pricing techniques for visitor management.
    - **Optimising visitor flows.** This research project simulates visitor movements which enables to identify the right measures for optimizing visitor flows at Schönbrunn Palace (https://www.ait.ac.at/en/research-topics/integrated-mobility-systems/projects/schoenbrunn-palace-simulation-in-visitor-management).

However, there is some scepticism about (digital) visitor guidance measures. Tourists have their planned activities, which can hardly be changed. Also, in case no tickets are available, the visitor might not visit the destination and other companies would lose business as well. Many of these visitor management tools are pilot tested in different destinations. However, not so many got implemented yet (Interview).

- Initialising and supporting **research projects** on unbalanced tourism.

Innovative aspects

What are unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

- The **mobile app** Ivie: includes the Vienna visitor card, but also a tool to track mobile phone users (visitors and residents). Data allows to recognise movement patterns of residents and tourists. Spaces of interaction between residents and tourists can be identified. There is the plan that the app might include also a personalized recommender system for activities in the city.
- **Good Governance:**
    - **Destination management based on data**, such as the residents survey and collaboration. "Pain-points" are identified, results are discussed with the city government and are used for lobbying, e.g., to adapt legislation. For example, a legal regulation was introduced for the street vendors of Mozart concert tickets to better control their practices.
    - An important task for DMOs in the next years is to **shape their lobbying topics**. Their role has changed. In the past, marketing was important, but with the increase of tourism impacts, the focus shifted to the product and to destination management (Interview).
- **Busmanagement 4.0:**
    - Digital technologies to support the smart management of coaches and shuttle buses in the city (avoid overcrowding at peak times and guide drivers as efficiently as possible to the most suitable disembarkation points, as well as to terminals and parking facilities)
    - Increased use of eco-friendly modes of transport for short transfers for groups such as cruise ship passengers.
- **Big Data analysis of visitor movement streams:** A joint project between the City of Vienna and the Vienna Tourist Board for careful management of flows of visitors and residents.
- **Digital concierge for city explorers (pilot project):** The Digital Concierge solution will curate individual travel recommendations and serve as a virtual guide and helping hand in the city for both visitors and residents.
- **Online formats of cultural events**: to be used to create virtual experiential spaces and simplify access for anyone wishing to engage with cultural life in the city (Vienna Visitor Economy Strategy 2025).

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

- The problem: how to measure the impact? It is important to understand the mobility in the city, the mobility of residents and visitors alike. There is data available, but many questions remain open: do residents and visitors interact? How? Who can be steered and managed more easily (the resident or the tourist)?

Nudging concepts are working, but not for everyone. For example, first-time visitors want to tick items off their bucket list. Therefore, nudging is primarily targeted at repeat visitors (Interview).

Challenges & success factors
What were the central challenges when planning, developing, and implementing the measures? **What were the central success factors when planning, developing, and implementing the measures?**
• The new Strategy 2025, **highlights the important benefits of tourism**, which has also increased the political understanding for its related issues. • It was also important to **involve a broad range of stakeholders from outside the tourism sector**. • Other success factors relate to the **professionalisation of stakeholder processes and good governance**. • Tourism development is considered as part of the general city development and not as an isolated sector development. By **cross-sectoral working processes**, **systemic knowledge was generated** and innovative solutions found (Interview).

Transferability to other destinations with similar characteristics
What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?
- Central strategic questions: how can tourism be presented as part of the solution for certain problems? How can we **show the benefits of tourism** as important contributor to the quality of life? - **Professional stakeholder management** and **good governance** (Interview).

Additional comments on solution approaches Are there other important aspects to understand the strategies/measures chosen?
VTB is member of the **Europen City Marketing (ECM) network**. ECM shares their experiences and best practices and has released the ECM Toolbox for "Managing Tourism Growth in Europe" https://fr.calameo.com/read/0006740147d7bd41b5afc which provides background information and strategy approaches for managing overtourism situations. **UNWTO's INSTO (Tourism Observatory)** is mentioned as a good instrument to monitor developments, because it involves all important stakeholders, collects all relevant data and treats tourism planning as a collaborative effort. It is a good instrument to understand the destination and to set interventions, such as nudging, construction measures, and legislation.

6. Monitoring/indicators

Monitoring of overtourism situation
Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?
• The most **important monitoring instruments** are two surveys: (1) T-Mona for monitoring visitor satisfaction (includes open questions to detect pain-points). (2) Monthly resident survey (includes open questions to detect pain-points).

- Interesting observation: survey results are better in summer (people are in better mood), -> when most tourists are Vienna (summer), the results are good.
- Also, results are influenced by media -> media reports influence the perception of issues. If reports on overtourism are released, overtourism is perceived as a problem. It is therefore important to determine whether overtourism is really an issue in order to then take appropriate measures.

Indicators used

What are indicators used for the observation? Which indicators have proven successful?

With the new Visitor economy strategy 2025 Vienna has eliminated the goals (indicators) in regard to numbers of bednights.

VTB uses **six tourism key performance indicators** (KPIs), of which 3. And 4. are indicators used to identify overtourism issues (Vienna Tourist Board 2021):

1. Direct and indirect economic impact induced by tourism in Vienna (Goal: increase from EUR 4 billion GDP in 2018 to EUR 6 billion GDP by 2025).
2. Net revenue from overnight stays generated by the accommodation industry in Vienna (Goal: increase from close to EUR 900 million in 2018 to EUR 1.5 billion by 2025).
3. *Quality of experience for guests (e.g., visitor recommendation rate) (Goal: keep the level of satisfaction = 9 out of 10 visitors would recommend Vienna as a destination).*
4. *Quality of life for residents (Goal: keep the satisfaction level high: 9 out of 10 local residents confirm that tourism is positive for Vienna.*
5. Number of businesses in the leisure and tourism sector certified by the Austrian ecolabel "Österreichisches Umweltzeichen" (Goal: to double this number).
6. Share of environmental transportation use by visitors (Goal: by 2025 the goal is to reverse the proportion of visitors arriving by car and by rail).

Specific indicators

Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?

- Perception of residents: continuous resident survey by the VTB
- Tourist satisfaction monitor: T-Mona
- Seasonality: statistics on arrivals and bednights (Statistics Austria)
- Number of commercial and private accommodations: capacity statistics (Statistics Austria)

Challenges and success factors of the monitoring
What are the challenges and success factors of the monitoring system/the indicators?
• It is important to think about the impact of the indicators: are they used to monitor policy goals, what can be influenced based on the data provided? • Is the indicator measurable, what effort is involved in collecting the data? • Is it possible to finance time series data collection over several years? • There is often an isolated consideration of indicators, which makes little sense. • Can the data/indicators be used to develop goals and strategies? (Interview) • Data granularity: As overtourism tends to occur in specific areas at specific times, more granular data is required (Interview). This has already been advocated by Peeters et al. (2018) and Weber et al. (2019).
Additional comments on monitoring/indicators: Are there other important aspects regarding the monitoring?

7. Management of the pandemic

Changes due to the pandemic
What has changed due to the pandemic? How has the pandemic influenced the tourism development? **How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?**
• Target figures of KPIs have changed. • Vienna City Card experience edition was developed to bring people to the city and support the Viennese hospitality industry. • Professionalisation of the stakeholder management. Lobbying was intensified to transfer needs of the stakeholders to politics (Interview).
Additional comments Are there other important aspects regarding the pandemic?

8. Outlook & Additional Comments

Expected future changes
What are the expected changes in the future tourism development? What are the plans for post-covid tourism?
• The future is still relatively open. • Focus will be on collaboration with stakeholders and collaborative decision-making. • Increased building of governance structures that enable participative processes.

Appropriate target groups have to be defined (which match the city's offer) and properly reached (Interview).

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

- The labour market in general and lack of staff in tourism, especially in the hospitality industry: Currently, many tourism employees leave the industry.
- The size of the looming economic crisis.

The dynamics of the sustainability debate: what government agreements will there be with regard to achieving the climate targets, influence of demographic change and greater sustainability orientation of the younger generation? (Interview)

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

- It will be hard to find measurements for overtourism. Indicators have an effect on the outside and allow to compare with others. But the most important topic in the context of overtourism is a social one. There is a direct correlation between residents´ satisfaction of life in the city of Vienna and their perception of tourism. That means, residents who are not satisfied with their life in the city are also unhappy with tourism. There are also differences between residents from different districts.
- There are real structural problems, which have to be solved (e.g., language and orientation in the city are structural problems). Tourists should be integrated well into city life. As many Viennese as possible should benefit from tourism. The visitor management tools are used as a last resort – although visitor management is the topic which is mainly covered in media.
- The challenge starts with the definition of target groups. Steering measures must be taken even before the trip: in defining the target groups, in communication and in product design (to target the right markets which match the product).
- Currently, a strategy process for prioritising activities is taking place.

The future is rather open. The signature experiences are defined, VTB supports the local carrier (Austrian Airlines) and the cultural institutions and communicates these to the markets to show that culture is still a top experience in Vienna despite the pandemic (Interview).

Additional comments

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Personal Communication:

Representatives of the Vienna Tourist Board

Tourism Expert at Modul University

Bay of Lübeck

1. General Information about the destination

Case study item	Information	Data source
Destination name	Bay of Lübeck (*Lübecker Bucht*), is a brand name for marketing and management cooperation of three municipalities (Scharbeutz, Sierksdorf, Neustadt/Holstein), and a loose cooperation with the neighbouring municipality of Timmendorfer Strand.	
Destination type	Coastal	
NUTS 3 Level	DEF08 Ostholstein	
Country	Germany	
Region	State of Schleswig-Holstein	
Tourist area size (km2)	Exact figures have been available for the municipality of Scharbeutz only. The beach area of Scharbeutz has a surface of 7.8 km^2, representing about 15% of the entire municipality. This is where 92% of tourism occurs (Municipality of Scharbeutz 2021).	
Population		
inhabitants in destination	27,977 in the three core communities, plus 8,712 in neighbouring Timmendorfer Strand, thus a total of **36,689 inhabitants** (Source: ift 2021)	
inhabitants in tourist centre/core area		

6,613 inhabitants (main residence, Scharbeutz only) live in the tourism core area, roughly 50% of the overall population. In addition, 2,955 persons have a second residence in Scharbeutz (Municipality of Scharbeutz 2021). It can be assumed that most of these second residences are located in the tourist centre.

Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports

The economic importance of tourism in Germany is like the world average. Table 3 shows the figures for contribution to GDP and jobs created (in both cases including indirect and induced effects) for 2019 and 2020 and the dramatic impact of the Covid-19 pandemic. The decrease in employment was substantially mitigated by the German government's wage subsidy programme for the crisis to prevent employment losses. Table 3 also shows that the drop in international tourist expenditures was more pronounced than for domestic tourists.

Table 3: Economic importance of tourism in Germany

	2019	2020	
Total contribution of Travel & Tourism to GDP:	9.8% of Total Economy Total T&T GDP = EUR344.4BN (USD393.1BN)	5.5% of Total Economy Total T&T GDP = EUR183.0BN (USD208.8BN)	-46.9% Change in Travel & Tourism GDP vs -5.3% real economy GDP change
Total contribution of Travel & Tourism to Employment:	5,872.6 Jobs (000s) (13.0 % of total employment)	5,431.4 Jobs (000s) (12.1 % of total employment)	Change in jobs[2] -7.5% -441.2 (000s)
Visitor Impact International:	EUR46.8BN Visitor spend 2.8% of total exports (USD53.4BN)	EUR19.7BN Visitor spend 1.4% of total exports (USD22.5BN)	Change in international visitor spend: -57.9% -USD 30.9 BN
Domestic:	EUR283.3BN Visitor spend (USD 323.4BN)	EUR149.4BN Visitor spend (USD 170.5BN)	Change in domestic visitor spend: -47.3% -USD 152.8 BN

Source: WTTC 2021

https://wttc.org/Research/Economic-Impact

Importance of tourism in destination (GDP, employees)

	In 2015, an extensive study calculated the economic gross value generated by tourism in the three TALB municipalities. Direct expenditure amounted to EUR 282.9 million, indirect effects to another EUR 188.9 million. This represents 23% of the region's primary income. About 50% of tourism-related gross value added can be attributed to day trippers (incl. a substantial proportion from the *Hansapark* theme park). In addition, tourism created, directly and indirectly, 7,150 full-time jobs – a significant effect in a region of about 28,000 inhabitants (Source: NIT 2016).	
tourist arrivals in destination (2015-2019)	In **2019**, **603,704** arrivals in commercial accommodations (10 beds or more; private rentals, VFR and camping not included) in all four municipalities were recorded, up from 416,220 in 2015 – an **increase of 45%**. The average length of stay was 4.4 nights, up from 4.2 in 2015. A sudden increase of arrivals in 2018 was due to changes in the statistical accounting system (ift 2021). Nevertheless, the increase has been steady and substantial.	
overnight stays in destination (2015-2019)	In **2019**, **2,626,514** bed-nights were recorded in commercial accommodations of 10 beds or more in all four municipalities, up from 1.74 million in 2015. Again, this seemingly massive **increase of 51%** is mostly due to statistical changes. If smaller holiday rentals are taken into account, the overall number of bed-nights spent in the region rises to approx. **3.4 million in 2019** (ift 2021; figures are approximate due to missing statistics).	
Day visitors, park entrances, cruise arrivals etc.	According to a survey carried out in 2015, the three core municipalities received ca. **3.8 million day visitors** annually. The *Hansapark* theme park received 1.4 million visitors, some of which were day visitors to the area, others overnight guests. There are no cruise visitors to the Bay of Lübeck.	
% tourism growth over the last 10 years	As pointed out above, tourist numbers have grown substantially and steadily, but not dramatically since 2012. However, due to statistical accounting changes, the exact growth figure cannot be determined.	

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available

The tourism intensity is **71.6 nights/inhabitant** in all four municipalities. This figure varies between 150.0 and 22.6 in the four municipalities. If nights spent in smaller accommodations (less than 10 beds) are included, the tourism intensity rises to ca. **93** nights per inhabitant.
If, day visitors (see below) were taken into account additionally, the tourism intensity climbs even higher to **196** per inhabitant.
For the **core tourism zone** in Scharbeutz the tourism intensity is **144** nights/inhabitant. If we assume that the number of day visitors to Scharbeutz is about the same as the number of overnights, the tourism intensity rises to **288** tourist days per inhabitant (own calculations based on figures provided by ift 2021 and Municipality of Scharbeutz).

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)

Tourism density (calculated as the number of nights spent per km^2) in the four municipalities was **23,264** in 2019, if only nights spent in commercial accommodations (10 beds or more) are counted.
If nights spent in smaller accommodations are included, the tourism density rises to ca. **30,100** nights per km^2. If day visitors (see below) are taken into account additionally, the tourism density climbs even higher to **63,800** per km^2.
For the core tourism zone in Scharbeutz the tourism density is **132,327** nights spent per km^2. With day visitors included, the tourism density rises to approx. **265,000** tourist days per km^2 (own calculations based on figures provided by ift 2021 and Municipality of Scharbeutz).

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

The Bay of Lübeck is **a classical beach destination** in the southernmost part of Germany's Baltic coast that developed as an important seaside resort area during West Germany's post-war years. Tourism continues to be predominantly domestic. Even before the emergence of Airbnb, the destination's accommodation infrastructure has been marked by a high degree of private house owners who rent out rooms or apartments to guests. The number of hotel beds is relatively small by comparison (14% of overall).

Tourism is seasonal with a long history of crowding in the summer months. Due to its vicinity to the metropolitan area of Hamburg, there is also an important influx of day visitors. Cars by far represent the dominating form of transportation causing **traffic jams** and associated problems during the summer holidays, on public holidays and on sunny weekends. In the past this has hardly been perceived as a persistent case of overtourism.

In the Corona summer of 2020, many Germans spent their holidays in their own country and flocked in larger numbers than before to the Bay of Lübeck. Apart from **physical capacity problems**, this represented a heightened **infection risk** in a pandemic situation, which led the authorities to implement the "Beach Ticker App" to measure visitor numbers at parking lots and at certain beach sections. The App indicates where saturations points have been reached and directs visitors to less frequented areas nearby.

2. Tourism development

Tourism Development
How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic? **Short description of recent development**
Tourism has developed steadily and substantially in the last years before the pandemic. The region has always been perceived as a mass tourism destination with a high visitor concentration in the summer months. To modernise the current accommodation structure, new hotel capacities have been built in recent years. This has also been a reaction to a certain slump in tourist numbers in the years after the German reunification when the newly formed eastern German State of Mecklenburg-Vorpommern, endowed with a long Baltic Sea coastline, became a major competitor with more modern accommodation.

Visitor segments (Share and/or numbers)
What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.
Tourism is predominantly domestic, with a high proportion of day visitors from the neighbouring metropolitan area of Hamburg, for whose two million inhabitants the Bay of Lübeck is the closest beach destination. **International guests represent less than 5%** of overnight guests. Tourism in the Bay of Lübeck area is marked by holidaymakers seeking the classical **sand, sun and sea** experience. These typically include families, young people (engaging in water sports, among others), elderly people (an important visitor segment in the off-season) and, to a certain degree, guests who value more upscale facilities and services (incl. wellness offers). Easily accessible beaches play an important role as well. What most demand segments have in common is that they do not expect low-density tourism. Apparently, there is no marked aversion to crowding. Socialising and liveliness are important aspects of the tourism product.

Temporal distribution/seasonality
When are the temporal peaks (if any)? How is the seasonal distribution of visitors? **Explanation and numbers (if available)**
On average, **41.9% of all nights are spent in the three summer months (June-August).** The figures vary between 37% and 53% in the four municipalities. Seasonality has slightly decreased since 2012. Recently, the strongest growth has occurred in the winter months and, to a lesser degree, in the shoulder months. **The average occupancy rate of commercial accommodations is 40%,** a slight decrease compared to 2016/2017 (when it was at 45%), but higher than in 2012/2013 (36%). Seasonality is much less pronounced in hotels (up to 69% occupancy) than in very small accommodation types (itf 2021).

Spatial distribution
What are the tourism hotspots? How is the spatial distribution of visitors? Explanation and numbers (if available)
see tourist area

Additional tourism figures
Are there any other important numbers/aspects to understand the tourism situation in the destination?
A particularity of the destination is the very low proportion of hotel beds compared to the very small, privately operated accommodation establishments in the destination. The former only constitutes 14.2% of the overall number of beds (ift 2021). This means that many residents are involved in the tourism business.

3. Tourism management in the destination

Organisation of tourism & stakeholders
How is tourism in the destination organised? Which authorities are responsible for tourism? Who are the central stakeholders involved in tourism management and development? Is there a monopolisation/dominance of certain businesses? What are the responsibilities of the different stakeholders?
The political and administrative system in Germany is characterised by a **high degree of municipal autonomy**, which also applies to the tourism sector in the form of municipal organisations. While this system is conducive to self-determination and local participation, it may also be inefficient and lead to parochial thinking, especially in rural areas where small municipalities prevail, and which may not be perceived as stand-alone destinations by potential tourists. The municipalities of Scharbeutz, Sierksdorf and Neustadt/Holstein established in 2012 a **joint institution under public law, the Bay of Lübeck Tourism Agency** (*Tourismusagentur Lübecker Bucht* – TALB) which acts as a DMO for these three municipalities. The neighbouring municipality of Timmendorfer Strand, which is more of a brand in itself, still has its own tourism organisation, but cooperates with TALB. According to the itnerviewee, Timmendorfer Strand may join TALB at some point since the State of Schleswig-Holstein increasingly ties project funding to the condition that municipal tourism organisations work together, forming so-called local tourism organisations (LTOs), which are, in fact, supra-municipal organisations such as TALB. Tourism is also organised on the county (*Landkreis*), regional and state levels. However, except for the state level, which influences state policies and channels funding. These organisations have relatively little power on the local level. TALB and the regional tourism organisations are mostly concerned with product development, communication, and marketing. Their capacities to actively practice visitor management, especially if it is restrictive or requires infrastructure development, are limited. **The municipality itself and its numerous technical committees are key stakeholders** in this respect, often implying lengthy and cumbersome processes. However, in exceptional cases the executive, that is the Mayor, can quickly take decisions, such as prohibiting the consumption of alcohol on beaches after a certain hour if there are complaints.

A major private stakeholder with 1.4 million visitors annually is the family owned ***Hansapark* theme park**.

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

Tasks:
TALB defines its strategic and operational tasks as follows:

- Brand development (marketing function)
- Local tourist informations
- Organisation and distribution of guest programmes and events (product function)
- Development of quality standards for tourism service providers
- Infrastructure development in cooperation with municipal authorities (planning function)
- Resource efficiency (digitisation; focussing human resources on the above tasks rather than on administration) and acquisition of external funding

Strategy:
Currently, a **new tourism strategy for the years until 2030 is being developed for the Bay of Lübeck** area. The draft paper defines the following main goals:

- Increased product quality
- A clearer brand positioning focusing on the destination's maritime flair as well as on nature experiences in the hinterland
- Increasing economic value generation through tourism
- Holidays year-round

Overcrowding is identified as one of several challenges in the strategy. It is currently seen as a temporary problem in the high season, which might loom more severely in the future, however. Nevertheless, the strategy paper sets out **quantitative growth targets** for the destination:

- Encourage the construction of more high-yielding hotel beds by ca. 15 percentage points, which would effectively add 1,500 more beds to the existing offer in the three core municipalities. The reasons behind this are a better quality, increased turnover per guest and a more balanced seasonal distribution.
- Increase the number of nights spent from 2.6 to 3.2 million (mostly in hotels)
- Increase the number of day visitors by 20%, but only in off-season and on weekdays.

TALB hopes to control crowding phenomena by applying several **visitor management approaches**, particularly regarding automobile traffic and public transport. **Digitisation** will play an increasingly important role for "channeling" visitors into less frequented areas within the destination. Other strategies to counteract unbalanced tourism include a stronger development of the rural hinterland with its lakes as well as classical attempts to broaden the tourist season by enhancing the tourism offer and the quality of accommodation. Sustainability is mentioned as one of several sub-goals, but remains vague in comparison to other formulated goals.

Policies and Instruments:
TALB has commissioned the development of a tourism strategy until 2030. The strategy was started in 2020 and is scheduled to be completed in the course of 2021. The occurrence of the Covid-19 crisis has delayed the process and cast some uncertainty over the destination's future development. However, in order to stay abreast of possible changes, it is planned to update the strategy annually through stakeholder committees and conferences. While this strategy provides comprehensive and detailed guidelines for the development of tourism in the destination, it is a non-binding instrument that depends on the willingness of different stakeholders and the availability of public funding as well as on private investments to implement it. Close cooperation is needed particularly with the municipal and regional departments/agencies for economic development, urban planning and traffic management.

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers

What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)

The root causes for unbalanced tourism in the destination are *not* sudden shifts in demand or exponential growth, but rather a **steady increase of visitor flows in a spatially limited area with relatively narrow beaches**. A **marked seasonality** and a **massive influx of day trippers** on public holidays and on sunny weekends, in combination with the **predominant use of the automobile**, are the more immediate reasons for overcrowding in the summer months.

This situation was exacerbated by the Corona crisis in 2020, when more Germans than usually travelled domestically and overcrowding presented a heightened infection risk. For the same reason, even more people chose to travel by car than by public transport. A study on the choice of transportation modes by holidaymakers traveling to the Baltic seacoast of Schleswig-Holstein in 2020 revealed that a staggering 94% used the automobile, despite good train connections between the cities of Hamburg and Lübeck and the Bay of Lübeck (NIT 2021).
Even though unbalanced tourism in the Bay of Lübeck area has only been perceived as a temporary problem prior to the Covid-19 crisis, it has been important enough for the town of Neustadt's tourism service to commission a **study on the acceptance of tourism among its inhabitants** in 2018. Neustadt has about 15,000 inhabitants and is the municipality with the lowest tourism intensity in the Bay of Lübeck destination. According to this study, 82% of the population rate tourism mostly positively. However, the situation is more differentiated when respondents were asked how they perceive the effects of tourism on themselves. 35% are still positive, citing a better image of the town, a varied gastronomic and retail offer, positive economic effects, and attractive jobs. 24% are more critical, based on a negative perception of higher prices, traffic jams in the main season, and too many tourist accommodations.

Both positive and negative opinions are more pronounced in the neighbourhood of Pelzerhaken where the presence of tourism is more evident due to its location directly at the sea. It is interesting to note that a substantial proportion (25%) of the inhabitants of Pelzerhaken have moved there because they had previously spent their holidays in the area (Source: NIT 2019). At the time, the two other tourism municipalities of Scharbeutz and Sierksdorf, which have higher tourism intensities than Neustadt, had not deemed the issue of tourism acceptance important enough to conduct a study on it. This perception has changed in the meantime.

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders?
Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

The major impacts of overtourism in the Bay of Lübeck area are threefold:

1. The **high physical density of tourists** on the most easily accessible beaches and along the waterfronts represent a health risk in pandemic times.
2. The most problematic impacts are caused by automobile **traffic**, leading to traffic jams on the access roads and in the settlement areas as well as to massive illegal parking along high-speed roads and on private properties.
3. A high degree of "**touristification**" through the omnipresence of tourism infrastructure and facilities. However, this appears to be a problem for only a relatively small proportion of local residents, many of whom have moved to the area precisely for its qualities as a tourist destination.

Degradation of local infrastructure (e.g. overuse of infrastructure): Especially the transport infrastructure is insufficient to accommodate the **high number of automobiles in the peak season**, even though large parking areas have been set up between the settlement areas and the motorway. Illegal parking on sidewalks and private properties puts an additional strain on the local infrastructure.

Degradation of the environment (e.g. waste problems): Apart from **temporary traffic noise and exhaust fumes**, no severe environmental problems resulting from unbalanced tourism have been reported. However, recreational automobile traffic contributes significantly to climate change due to its **greenhouse gas emissions**.
Municipal waste collection capacities are sufficient even in the summer months, although the large visitor numbers lead to increased amounts of garbage – including on the beaches which have to be cleaned up regularly, sometimes several times per day.

Imbalances in the local economy (e.g. concentration of benefits): There are **no apparent imbalances in the local economy as by far the highest proportion of tourist beds (85%) are rented out by small local enterprises or even private persons**. Furthermore, tourism is the most significant employer in the area, meaning that an important part of the local population is directly or indirectly involved in the tourism economy. According to the survey in Neustadt, only a minority of inhabitants complain about tourism-induced higher prices.
Restaurants and retail shops are still mostly owned and operated by local entrepreneurs in the towns of Sierksdorf and Neustadt. In Scharbeutz, where tourism is more developed, there is a mix of local businesses and regional, national and international chains, but this not (yet) seen as problematic.

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Disturbance of the social environment (e.g. reduced quality of life): There are **concerns in the destination that further tourism growth might affect the quality of life of residents**. Complaints in the peak season have become more frequent, mostly relating to traffic problems. **Day trippers and tourists traveling in camper vans are particularly unpopular,** according to the survey. Two thirds of the residents interviewed in Neustadt also stated that they did not feel sufficiently informed about tourism development in the area. Most of them do *not* wish to have more tourism growth. Instead, they want tourism to become more sustainable. However, **there are no organised citizen protests.**

Decreased quality of the visitor experience (e.g. low visitor satisfaction): The Bay of Lübeck area is widely known as a mass tourism destination, therefore **most visitors do not seem to mind large crowds.** However, spending time in traffic jams or losing even more valuable leisure time by looking for a parking space are certainly a nuisance to tourists themselves. Despite this, **there are only occasional complaints in the social media**.

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

Throughout the year, the local population is only slightly affected by overcrowding, but there are signs that a tipping point may be reached in the peak season. Similarly, rising prices do not yet represent a severe problem, but this may change in the future, also affecting tourism employees whose salaries are often modest. Since qualified tourism personnel is scarce, it is also in the interest of the destination to make sure that the living conditions for locals stay agreeable.

The Corona summer of 2020 has revealed a certain antagonism of interests between locals who are tourism entrepreneurs and those who are not. Whereas the latter were in favour of limiting visitor numbers and enforcing this through the presence of police, the former strongly opposed such drastic measures fearing that it might damage the destination's reputation.
Tourists themselves are affected by their own behaviour. Even though there are alternatives (public transport, less frequented beaches), many tend to flock to the nearest beaches and use their cars to get there.

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

There are temporal and spatial bottlenecks. The former relate to the **pronounced seasonality** and the **dependence on beach tourism** in favourable weather conditions. In spatial terms, the **narrow beaches constitute a natural constraint** which cannot be changed. **The traffic situation is the main cause for negative impacts.**

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

Strategies and measures against unbalanced tourism development in the Bay of Lübeck can be divided into two types:

1. **Immediate measures taken during the pandemic**
2. **Long-term strategies laid out in the Tourism 2030 strategy, but not yet carried out.**

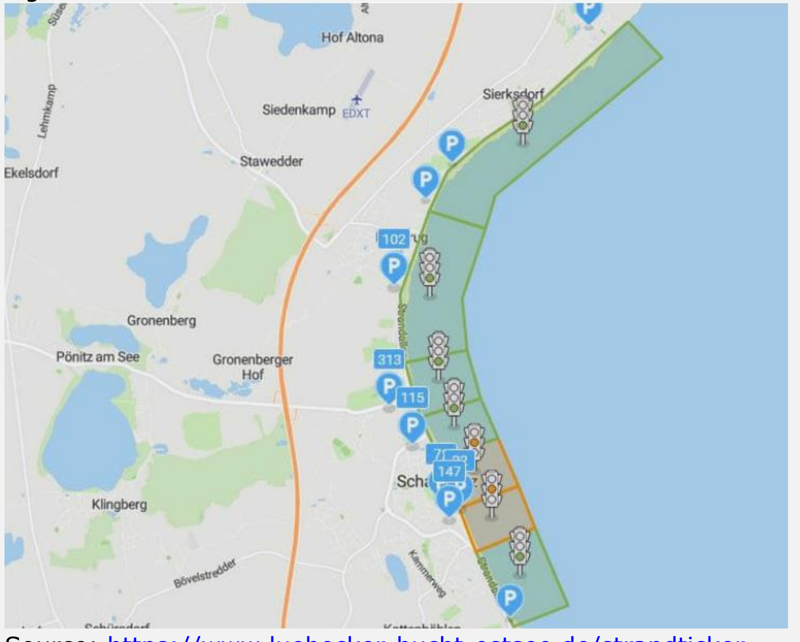
1. As described above, overtourism became a severe problem only when the first Corona-induced lockdown was lifted in the State of Schleswig-Holstein in the early summer of 2020. Reopening hotels, restaurants and entire seaside resorts was allowed by the authorities under the condition that **minimum distances between people would be ensured**.

An **initial consideration to limit visitor numbers** (e.g. by issuing day passes) and bar people from entering the destination altogether was dismissed, mostly because it would have required road blocks and massive police presence. While parts of the local population actually supported such an aggressive approach, local politicians and tourism entrepreneurs were against it fearing even more economic losses and a tainted reputation. Instead, an approach to **channel visitors away from the hot spots to less frequented beaches and parking lots** was preferred.

The key instrument that made this possible is the so-called "**Beach Ticker**" (*Strandticker*), an **app that assembles data on parking lot occupancy and visitor numbers on individual beaches** so that visitors can see which parking areas and beaches are full or where there is still some space. This is **visualised in the form of a traffic light**, the so-called *Strandampel* (beach traffic light; see Map 1).

The Beach Ticker had to be made known to the public in the short-term. This was achieved by involving the classical media (especially via radio) and the traffic police which informed drivers about the app on its mobile screens. In addition, social media were used massively to disseminate the message, including by paid posts.

Figure 2: Visualisation of the Beach Ticker



Source: https://www.luebecker-bucht-ostsee.de/strandticker

Nevertheless, since not everybody actually used the Beach Ticker or followed its advice it was still necessary to deploy staff of the *Ordnungsamt* (a municipal public order authority without policing rights) or even police to **enforce traffic regulations** (e.g. when parking lots had to be closed when they were full) or to **hinder people from entering beaches that were already overcrowded**.

2. The **Tourism 2030 concept paper** has laid out a number of strategies to tackle unbalanced tourism in the medium- to long-term, both targeting impacts and root causes. These comprise:

1. **Reducing negative impacts caused by automobile traffic**
   a) by a more efficient **traffic management system** (see above), by expanding parking lots outside of the settlements areas and by installing shuttle buses between those parking areas and the waterfronts. These measures would free the settlement areas and the waterfronts from vehicle congestion and create more space for pedestrians;
   b) by **reducing the proportion of automobile traffic in favour of public transport and cycling/walking** in the destination. This requires both new physical infrastructure (bicycle paths) and attractive public transport offers (such as simplified ticketing systems).
2. **Broadening the seasonal distribution of visitors**
   a) by **promoting the winter and shoulder months** through more high-quality hotels and weather-independent offers
   b) by **halting the further growth of day visitors in the peak season** by demarketing. However, there is no active discouragement in terms of communication, let alone restrictive measures, such as limiting parking space or charging higher parking fees.

3. **Spatial dispersal of visitors into the much less developed rural hinterland** by creating attractive leisure offers there (including gastronomy, swimming opportunities in lakes).
4. In the longer term, the municipalities of the Bay of Lübeck are to be developed both as tourism and as residential spaces, that is to **avoid the further spread of "touristification"** in spite of a high tourism intensity and density. A major goal is to ensure affordable living for local inhabitants and tourism employees.

The development of the Beach Ticker into a visitor management tool was a **top-down regulatory intervention during the Corona crisis of 2020** which obliged counties and municipalities to curb the possible spread of the disease through the massive presence of tourists. This was an exceptional situation that cannot be replicated under normal circumstances, where legal provisions and tourism interests restrict the use of drastic visitor management measures.

aimed at root causes	Tackling the root causes of overtourism requires long-term strategies and is often beyond the reach of municipalities and DMOs (e.g. public holidays, mobility habits). However, such **driving forces can be managed on the local level so as to reduce the resulting pressures**. Such concepts have been formulated in the Tourism 2030 concept for the Bay of Lübeck (see above).
aimed at capacities	**There are currently no strategies or measures to enhance the financial or personnel capacity of TALB** (or other local organisations in charge) to plan and implement visitor management more effectively. This might be necessary, however, since these tasks go beyond the classical function of DMOs, which usually focus on communication, marketing and visitor services.
aimed at impacts	The Corona situation after the lockdown required a **quick solution to mitigate imminent overcrowding and associated health risks**. The Beach Ticker has largely fulfilled this function, but without remedying the root causes of unbalanced tourism. In addition, because the Beach Ticker can only give recommendations, which are not heeded by everybody, **enforcement** on peak visitor days was necessary (see above). A technical measure make **garbage collection** more efficient, is a new system that is about to be installed where large trash bins are being placed underground. These bins do not have to be emptied daily.

Innovative aspects

What are unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

The most innovative feature of the visitor management system of the Bay of Lübeck is the **Beach Ticker app** (see description above). It is based on a **network of cameras, laser sensors and WLAN impulse measurement points on parking lots and at major beach access points** that record the number of persons or vehicles present at those locations or having passed the sensors. The anonymised data are then transmitted to a database in the State of Schleswig-Holstein where they are processed (including extrapolation since sensors cannot be placed everywhere) and transmitted to the app users. The system is dynamic in the sense that it does not just reflect the status quo, but also produces forecasts based on an algorithm that takes trends, the time of day and other factors into account.

Recently, the Beach Ticker has been amended by including beach safety information. In the future, more sensors are planned on parking lots along highways and at beach access points for higher data accuracy. In addition, **interfaces** can be created with weather reports and traffic information on highways, for instance.

Figure 3: Laser sensor at beach access point in the Bay of Lübeck

"Glad you are here" (Source: https://www.deutschertourismuspreis.de/innovationsfinder/luebecker-bucht-st-peter-ording-besucherlenkung.html)

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

Apart from data provided by the Beach Ticker(visitor density on beaches, occupancy of parking lots), overtourism impacts or the efficiency of counter-strategies are not specifically measured.

Challenges & success factors

What were the central challenges when planning, developing, and implementing the measures?

Decisions regarding visitor restrictions had to be taken under **time constraints**. The measures were unprecedented; their acceptance by the public and even some legal implications were unclear. Beaches in Germany are usually freely accessible to the public. In fact, not every tourist heeded the advice provided by the Beach Ticker"and when access to overcrowded beaches was barred, it sometimes led to **conflicts with undiscerning guests**. Since this

had been expected to some degree, police officers were present in the area. The ensuing conflicts and pictures of some overcrowded beaches made **headlines in the mass media** and led to concerns among the tourism entrepreneurs that this might damage the destination's reputation.
Another challenge is the **time that is necessary to develop digital applications and their associated costs**, including for installing the hardware (measurement points). Fortunately, in the case of the Beach Ticker 80% of the development costs were covered by the State of Schleswig-Holstein.

What were the central success factors when planning, developing, and implementing the measures?
The Beach Ticker was a big success. The app and the corresponding website received millions of hits by users and became famous in the German media. It was also **awarded the German Tourism Prize** for its innovating concept by an expert panel of the German Tourism Association and the public in 2020.
The app did not have to be developed from scratch. It had already been conceived before as a **local travel guide and information system**. Thus, the basic software was already there and had only to be reprogrammed when the lockdown ended.
In order to save development costs, the State of Schleswig-Holstein tied its subsidies to the condition that the **app be used by several tourism communities**. TALB therefore entered into a partnership with the DMO of the North Sea resort town of St. Peter Ording which had experienced similar problems of overcrowding.
Cooperation with various stakeholders was also a success factor when integrating the "beach ticker" into an overall visitor management system. Cooperation in this regard took place with the municipal administrations and governments, the police and the media.
A particular group that was also instrumental in the initial phase were the **beach chair rentals** who also act as beach "managers" in return for being allowed to use a public space for their business. Before the automatic measurement points were installed, the persons in charge of the beach chairs actually decided when a beach was full and cordoned it off with a rope.

Transferability to other destinations with similar characteristics

What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?

Technically, the Beach Ticker system can be applied to other destinations in Schleswig-Holstein once measurement points have been installed there. Furthermore, it should be possible to apply it to similar destinations in Europe, provided that they are not too extensive and have **defined access points**. This is conceivable not just for **(managed) beaches**, but also for **urban destinations** (e.g. on certain streets) and even on **hiking trails** or highly popular natural attractions. A precondition is that a limited number of access points exists or can be installed.

Of course, **upfront funding** is necessary to programme the software and install the necessary hardware, but a high degree of automation might save staff costs later. **Synergies can be created by integrating such a visitor management tool into a visitor information and guiding system.**
It is probably also conducive to the acceptance of such a tool to point out that it is **recommendational in character** and actually has a **quality function for the visitor experience** itself as it saves guests valuable leisure time and guides them to less crowded places.

Additional comments on solution approaches Are there other important aspects to understand the strategies/measures chosen?
It is important to underline that the **urgent need to act in order to prevent health hazards under epidemic conditions has made it possible to quickly tackle a problem that had been latently present before**. However, the Beach Ticker helps to mitigate immediate impacts of overtourism, namely physical visitor density and parking capacities, but not any other environmental or social problems, such as greenhouse gas emissions or increased real estate prices. Nor does it tackle any of the root causes of overtourism (in this case massive use of the automobile).

6. Monitoring/indicators

Monitoring of overtourism situation
Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?
In the Tourism 2030 concept, **classical economic tourism indicators**, such as the percentage of hotel rooms, occupancy and seasonal distribution of visitors have been formulated for strategic purposes, but these are still growth- rather than degrowth-oriented. By contrast, environmental and social goals tend to be qualitative or even vague.

Indicators used
What are indicators used for the observation? Which indicators have proven successful?
So far, only **indicators provided by the Beach Ticker** (numbers of beach goers and vehicles in parking lots) are used for monitoring purposes. **However, there is not yet a clearly defined threshold beyond which a beach is rated as "full"**. The size of beaches varies with the tides. Party sizes also play a role. Currently, the decision whether a beach is full is still made subjectively by the beach chair rental managers. This point is then correlated with the digital data provided. In the future, the Beach Ticker system will be completely automated.

Specific indicators
Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?
Seasonality: Seasonality is calculated based on official tourism statistics. **Day visitors:** So far, only **indicators provided by the Beach Ticker** (numbers of beach goers and vehicles in parking lots) are used for monitoring purposes. **However, there is not yet a clearly defined threshold beyond which a beach is rated as "full"**. The size of beaches varies with the tides. Party sizes also play a role. Currently, the decision whether a beach is full is still made subjectively by the beach chair rental managers. This point is then correlated with the digital data provided. In the future, the Beach Ticker system will be completely automated.

private accommodations (e.g. Airbnb): The *Kurtaxe* has to be paid by guests of very small accommodation rentals as well, provided that these operate legally. Thus, the amount paid can also be used as an indicator for bed-nights spent in private accommodations.

perception of residents: There are **no regular surveys** on tourism acceptance among the residents. One study was conducted in 2018 in the town of Neustadt/Holstein.

Challenges and success factors of the monitoring

What are the challenges and success factors of the monitoring system/the indicators?

Apart from the Beach Ticker, the destination has not yet conceived an overtourism management or monitoring system.

7. Management of the pandemic

Changes due to the pandemic

What has changed due to the pandemic? How has the pandemic influenced the tourism development?
How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?

Changes due to the pandemic
In 2020, the number of nights spent in accommodations with 10 beds or more fell to 2,228,245, a decrease of ca. 15% (Source: www.statistik-nord.de), a rather modest loss compared to most destinations in Germany and around the world.

Changes regarding tourism development
Apart from that, the Corona crisis has affected the accommodation sector only slightly as tourism was already predominantly domestic before the pandemic. In addition, accommodation businesses were compensated by the government for their losses during the lockdown while retail shops lost business due to the lack of tourists while still being open.

8. Outlook & Additional Comments

Expected future changes

What are the expected changes in the future tourism development? What are the plans for post-covid tourism?

The destination is still on a **moderate growth path outside of the peak season**. No major changes are expected.

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

There are slight concerns about the **development of real estate prices and an over-presence of tourists** in general. **Traffic congestion** is also seen as a major management problem that needs to be tackled.

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

Develop digital solutions for visitor tracking that combine visitor services (information) with visitor management.

List of references and interviews

Institut für Freizeit- und Tourismusberatung – ift (2021): Tourism concept for the Bay of Lübeck – Goals, strategic guidelines, fields of action, measures (*Tourismuskonzept Lübecker Bucht 2030 – Ziele, Strategische Leitlinien, Handlungsfelder, Maßnahmen).* Draft, January 2021

Municipality of Scharbeutz (2021): various statistics

New Insights for Tourism – NIT (2016): Tourism expenditure and value generation in the Bay of Lübeck (*Tourismusausgaben und Wertschöpfung Lübecker Bucht 2015*). Report presented June 2016

New Insights for Tourism – NIT (2019): Acceptance of tourism in Neustadt, Pelzerhaken and Rettin – Results of a resident survey in June 2018 (*Tourismusakzeptanz in Neustadt, Pelzerhaken und Rettin – Ergebnisse einer Einwohnerbefragung im Juni 2018*)

New Insights for Tourism – NIT (2021): Market research data on tourist mobility in the State of Schleswig-Holstein (*Marktforschungsdaten zur touristischen Mobilität in Schleswig-Holstein*). Presented May 2021

Representative of Tourism Agency of Lübeck Bay – TALB: Interviews conducted on June 28 & August 9, 2021

World Travel & Tourism Council – WTTC (2021): Germany – Annual Research 2021. Key Highlights

Geirangerfjord

1. General Information about the destination

Case study item	Information	Data source
Destination name	Geirangerfjord	
Destination type	Coastal	
NUTS 3 Level	NO053	
Country	Norway	
Region	Møre og Romsdal	
Tourist area size (km2)	Area of the Geirangerfjord: 520 km^2	(UNESCO Periodic Report – Second Cycle, 2013)
Population		
inhabitants in destination	Geiranger (~250 inhabitants) is part of the municipality of Stranda (~4 400 inhabitants)	(Destination Geirangerfjord. n.d.)
inhabitants in tourist centre/ core area	~250 inhabitants in Geiranger (where the cruise ship port is situated	(Destination Geirangerfjord. n.d.)
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	GDP contribution of tourism in Norway: – 7.9% of total GDP (2019) – 4.6% of total GDP (2020) Employment in tourism in Norway: – 11.4 % of total employment (2019) – 10.6 % of total employment (2020)	(WTTC, 2021)
Importance of tourism in destination (GDP, employees)		
tourist arrivals in destination (2015-2019)	Geiranger port: 349 786 (2017), 356 707 (2018), 402 335 (2019)	(Innovasjon Norge (2019); Innovasjon Norge (2018); Innovasjon Norge (2017))
overnight stays in destination (2015-2019)		
day visitors, park entrances, cruise arrivals etc.	Approximately 1 000-day visitors in Geiranger during peak days and around 800 000 to 1 000 000 in total between May and September	(Peeters et al., 2018)

% tourism growth over the last 10 years	Geiranger port: 218 038 (2009) to 402 335 (2019) --> 84% increase of passengers in the Geiranger port over the last 10 years.	(Innovasjon Norge (2019); Innovasjon Norge (2018); Innovasjon Norge (2017))

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available
Not available

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)
Not available

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

Situated in south-western Norway, north-east of Bergen, Geirangerfjord and Nærøyfjord are part of the west Norwegian fjord landscape. They are set 120 km from one another and are considered as **archetypical fjord** landscapes and among the most scenically outstanding anywhere. These fjords are among the world's longest and deepest and vary in breadth from just 250 m to 2.5 km wide. **The Geirangerfjord has a length of 15km** and reaches from Hellesylt till Geiranger. (UNESCO, 2021) In addition, Hurtigruten makes daily calls in June until August. Cruise traffic in Norway is largely confined to the summer months. (Norwegian Ministry of Climate and Environment, 2019)

Fjord Norway and the Oslo region are the most visited regions in Norway (particularly true for foreign visitors) (Innovasjon Norge, 2019) Geiranger belongs next to Flåm and Bergen to **the most popular cruise destination**. This popularity also leads to increased negative **impact of cruise traffic on the local environment and local communities.** Bergen was the port with most calls by cruise ships in 2017 (307), followed by Geiranger (181), Stavanger (181), Flåm (142) and Ålesund (133). (Innovasjon Norge, 2017). **Most visitors are on a round trip travel, with relatively short stay in the respective areas,** however, half the number of the Geiranger visitors spend at least one night in Stranda or Norddal municipalities. In the Geiranger Area, tourism is the main income (Destination Geirangerfjord, n.d.). The large number of visitors (between 800'000 and 1'000'000 visitors from May to September) in Geiranger stands in large contrast with the 250 inhabitants. This leads to **pressure on local infrastructure** but also severe environmental impacts from the cruise ships on the fjords and surroundings.

Additional general remarks

Protection and management requirements

The majority of the land is protected as an IUCN Category V "Protected Landscape" and several small areas within this are Category I "Strict Nature Reserve". The legislative regulations embodied in the Norwegian Nature Diversity Act provide long-term protection for the full range of natural values. While private lands make up 85% of the land, inhabited parts are carefully controlled under the Planning and Building Act and mechanisms such as County, Municipal and Local Development Plans.

2. Tourism development

Tourism Development
How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic? Short description of recent development
The **cruise industry has been steadily growing** over the previous years. In 2017, 110 different cruise ships were registered in Norwegian waters. Their landed 3 million passengers in Norwegian ports. Overnight stays in Norway have increased 16% to over 35 million from 2014 to 2019 whereas cruise passengers increased by 65% from 574'000 to 944'994 in the same period. Geiranger, situated at the end of the Geirangerfjord and located more than 100 kilometres inland from the coast, is the third most visited port in 2019 with 402,335 passengers after Bergen and Stavanger. (Innovation Norway, 2019) From 2005 to 2019 a large increase in visitors was observed, also due to the recognition as a world heritage site. However, this increase in visitors has unfortunately not led to an increase in local employment possibilities. As almost everywhere in the world, the pandemic has also drastically reduced the tourist arrivals in Geiranger.

Visitor segments (Share and/or numbers)
What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.
Country of origin In 2019, 51% of Fjord Norway visitors were foreign and 49% Norwegian. Only the Oslo region had more foreign visitors (57%) in Norway. Germany, Sweden, Denmark, The Netherlands, USA and France make up 54% of the foreign visitors and are the most important international source markets for the Fjord Region. The largest share of cruise passengers are Germans. In 2019, 37 percent of all cruise passengers were German, followed by Brits and Americans. In total, these nationalities represent 72 per cent of all cruise passengers. (Innovation Norway, 2019) Length of stay: In the study of Dybedal & Haukeland (2017) **about half the number of the respondents in a spent at least one night in the area**, and one third of these (15 percent) spent both the previous and the next night in the area. **Short stays are dominant** among those who do not stay overnight, where 50% of the respondents stayed less than two hours. However, Cruise passengers stay longer, 51 percent of the cruise passengers in Geiranger stayed more than four hours ashore. In both areas a large proportion of cruise passengers attend shore excursions like the Flåmsbanen railway and round trips by coach. (Dybedal & Haukeland, 2017) **In a typical summer season, the destination welcomes around 1/3 day visitors, 1/3 overnight stays, 1/3 cruise passenge**r (Interview).

Temporal distribution/seasonality
When are the temporal peaks (if any)? How is the seasonal distribution of visitors? Explanation and numbers (if available)
The high season is in summer from May – September. In this period of time between 800,000 and 1,000,000 people visit Geiranger.

Spatial distribution
What are the tourism hotspots? How is the spatial distribution of visitors? Explanation and numbers (if available)
There are different hotspots in the Geirangerfjord: - Falls De syv søstrene ("the Seven Sisters"), - Friaren ("the Suitor") and - Brudesløret ("the Bridal Veil") - Trollstigen Road (incl. viewing platform) - Fjord Cruises (e.g. Geirangerfjord & Norway in a nutshell® tour) - Norwegian Fjord Centre (visitor and education hub for the West Norwegian Fjords)

3. Tourism management in the destination

Organisation of tourism & stakeholders

How is tourism in the destination organised? Which authorities are responsible for tourism?
Who are the central stakeholders involved in tourism management and development? What are the responsibilities of the different stakeholders?

Following organisations play a role in the tourism development of the destination:

- **Innovasjon Norge** (engl. Innovation Norway is the national DMO): They are a governmental instrument for development and innovation. In terms of tourism, their main mandate is destination development, financing of tourism activities and the management of the Sustainable Destination Certification. Furthermore, they promote the Norwegian tourism industry through Visit Norway.
- **Fjord Norway** (official tourist board of Western Norway): main functions are the international marketing of the Fjord Norway region
- **Destinasjon Geirangerfjord** (original Local DMO): they are no longer active and part of their functions are now overtaken by Fjord Norway. Destinasjon Geirangerfjord (now Geiranger AS) is now just a sales & booking company resulting from the wishes of the local tourism operator to focus more on revenue generating activities. Part of the non-profit and coordinating destination development tasks have been overtaken by the Geirangerfjord UNESCO foundation (Interview).
- **West Norwegian Fjords – World Heritage Site**: includes the Geirangerfjord and the Nærøyfjord
- **Geirangerfjord World Heritage Foundation**: a charitable foundation established by the municipalities of Norddal (now Fjord) and Stranda in partnership with Møre og Romsdal County. Their headquarters are at the Norwegian Fjord Centre in Geiranger. Key tasks include public education about the natural heritage of the West Norwegian Fjords, partnership working for sustainable and green development, conservation (e.g. through restoration projects), world heritage competence-building, and providing an arena for scientific research.
- **Norwegian Fjord Centre** (visitor and education hub for the West Norwegian Fjords)

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

The two central tourism organisations in the Geirangerfjord are the *Fjord Norway* (official tourist board of Western Norway) and the *Geirangerfjord World Heritage Foundation.*

Fjord Norway

They coordinate the international marketing for the three counties of Vestland. Their mission is to generate increased traffic and season extension through targeted international marketing. However, in the "Scenario 2030" project starting in 2019, sustainable tourism development also plays a role for Fjord Norway. The Western Norway's vision is to develop attractiveness through being sustainable. In the "Scenario 2030" project, tourism and the counties in Western Norway have laid down guidelines for which tourism they want to develop towards 2030. This project is the basis for Fjord Norway's work. A main approach to better deal with overtourism is to promote off-season and establish the fjords as an all-year around destination (e.g. "Go Viking in the Fjords"

– experience the fjords when the season is at its toughest and roughest and feel the "Viking spirit") but also pricing and capacity limits play a role to visitor management. The vision is defined through ten objectives that together are intended to cover all priority dimensions of the concept of sustainability: (Fjord Norway, 2019)

1. No over-tourism
2. Emission-free transport in the region
3. Long stays
4. Year-round jobs (contribute to local economy)
5. Maintain natural diversity
6. Maintain cultural diversity (location characteristics)
7. Strengthened knowledge development and access to competence
8. Value creation growth
9. Profitability
10. Contribution to the sustainability of other sectors

Geirangerfjord World Heritage Foundation (Katrin Blomvik, Managing Director)

In Norway, the Ministry of Climate and Environment has the ultimate responsibility for coordinating and monitoring work associated with World Heritage status. The Ministry’s Department for Cultural Environment is the national contact point for the Convention. The Directorate for Cultural Heritage and the Norwegian Environment Agency are responsible for monitoring the implementation of the Convention in their respective fields. all three tiers of government carry responsibility for protecting the landscape and ensuring that businesses can operate, and local communities develop without harming the World Heritage. Municipal authorities are responsible for management and development at local level. Large parts of the World Heritage site are designated landscape protection areas or nature reserves. These areas are governed locally by management councils that work within the framework of Norway’s Nature Diversity Act, conservation regulations and local management plans. The Norwegian Nature Inspectorate is responsible for monitoring protected areas on behalf of the nation’s environmental authorities. To manage the Heritage Site a foundation was established by Norddal municipality and Stranda municipality together with Møre og Romsdal county municipality. The foundation is based at the Norwegian Fjord Center in Geiranger. Furthermore, the West Norwegian Fjords is an active member of the Marine World Heritage Network facilitated by the World Heritage Marine Programme.

They have established a long-term collaboration with the University of Bonn to measure air quality in Geiranger. The research project tries to understand how air quality in the Geirangerfjord is affected by tourism. This data is key to develop measures and reduce the negative impacts of tourism. There is an annual report about the condition and so far, the project has revealed high emissions of particulate matter and nitric oxide during periods in the summer.

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers

What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)

- **Cruises**: Visitors entering the Geirangerfjord is largely facilitated by cruise tourism, which has been growing in the whole country. The number of cruise visitors in Norway have increased from about 200,000 to almost 700,000 between 2000 and 2015, according to Norway's Institute of Transport Economics (Dybedal et al., 2015). The number of cruise ship port calls in Norway has gone up from approximately 1,200 to 2,000, and the number of passengers per ship has nearly doubled over the same time. (Peeters et al., 2018)
- **Social media platforms** such as Instagram and Facebook have magnified the attraction of sites with spectacular photo-opportunities, such as Trolltunga (#trolltunga has over 200'000 posts on Instagram) which are almost marketing tools themselves (Telegraph, 2016).
- "**Frozen Effect**" part of the growth could be put down to Frozen, a Disney cartoon whose fictional setting, Arendelle, is closely modelled on Norway. This has resulted in more attention to the areas by families, especially from the US market (Fjordtours, n.d., Orange, 2016).

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders?
Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

- air pollution
- water pollution
- High number of tourists per residents
- traffic and public transport congestion

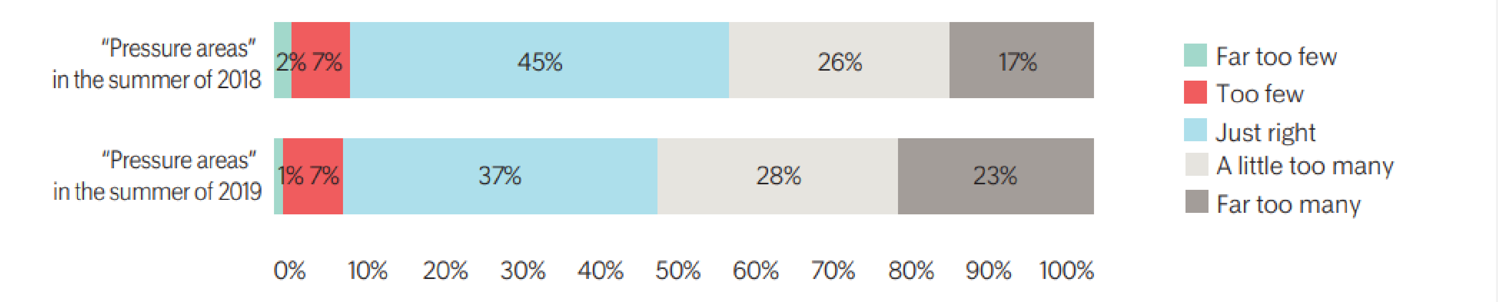
Especially the high environmental issues have been increasingly described and addressed. Studies from University of Bonn commissioned by the Geirangerfjord Heritage foundation show that cruise traffic and international passenger ferries result in substantial emissions to air of pollutants such as nitrogen oxides (NOx) and sulphur oxides (SOx), which have a negative impact on local air quality. In the West Norwegian Fjords World Heritage Site, measurements have shown that emissions from cruise ships can be harmful to public health, in addition to being unsightly and having a negative impact on the characteristics that justified the inscription of the fjords on the UNESCO World Heritage List. Stricter emission standards have therefore been introduced for shipping in these fjords. In practice, these prohibit the use of heavy fuel oil with certain exceptions for ships that have closed-loop scrubbers and reduce visible exhaust from the ship. In addition, stricter standards for NOx emissions have been introduced, and discharges of sewage and grey water have been prohibited.

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

Besides the negative impact on the local environment, local residents are also affected by overtourism. There is an annual sentiment survey with local residents and from the Fjord Norway Areas half answered that there are *slightly too many* to *far too many tourists.* This trend has been increasing (cf. 2018 vs 2019)

Figure 4: Higher reported pressure from tourism in 2019 than 2018



In particular, the volume of cruises and partly tourists with campervans are considered to be too high for an increasing amount of the population (3 out of 10 in 2018 vs. 4 out of 10 in 2019) (Innovasjon Norge, 2019).

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

High number of day visitors and cruise passengers that come into the small municipalities.

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

The cruise industry with its negative impact on the environment and local value creation has already been a problem before Geirangerfjord was listed as a WHS. However, with the **growth of cruise passengers** and tourists in general the **negative media coverage grew** and increasingly challenged the reputation of the region. However, the concerns from the Geirangerfjord World Heritage Foundation were not taken seriously in the local community, as economic interests have dominated (Interview).

In 2012 the Green Fjord partnership was started, and local tourism stakeholders agreed to intensify measures, however, without the involvement of the cruise industry, where the problem was not acknowledged. Since the foundation could not progress locally it started to place their concerns with the national political authorities. They also started to scientifically **measure local air quality** with the University Bonn and the project team of Prof. Löffler. This publication of trustworthy data then led to more support for the environmental concern and the decreasing air quality led to national concern.

Based on the concerning results from the air quality measurements, the **Norwegian parliament decided to adopt zero-emission regulations in World Heritage fjords** in May 2018 – a resolution to halt emissions by 2026 in the two heritage fjords. This will make the fjords among the world's first zero emission zones at sea.

This case **illustrates the importance of reliable, scientific data about the problem** at hand and the **necessity to involve higher political levels** that can have a broader, sometimes more balanced view on the situation. Norway also recognized the opportunity to become a world leader in terms of zero-emission cruise and the importance of an intact natural heritage to position itself long-term in tourism. This novel and bold regulation approach has created high international attention and pressure to follow suit. It also to have a first-mover advantage when it comes to zero-emission cruising which is also for the guests becoming more important. This rather short-term deadline pushes technological advancement.

This is of course not the only solution approach taken to the unbalanced tourism growth in the Geirangerfjod. The most important initiatives are shortly described below.

- **Measures to regulate cruise tourism:** Stricter regulations on emissions from ships sailing in the Norwegian world heritage fjords from March 2019. The Government launched a new Action Plan for Green Shipping in 2019, outlining policies and measures to reduce national emissions of greenhouse gases, strengthen the Norwegian maritime industry and enable the development of the technology needed to reach global environmental goals. A new Harbour and Fairways Act, effective from 2020, will grant local authorities wider powers to limit cruise ships and other vessels' stay ashore or in port, in order to reduce emissions and improve air quality. An increasing number of Norwegian ports are investing in new infrastructure to be able to offer visiting cruise vessels on-shore power supply (from hydropower). This will enable the vessels to turn off their diesel engines and so reduce emissions. The Norwegian Government's enterprise responsible for promoting environmentally friendly energy solutions (Enova) has granted financial support to investments in 20 ports.

- **Framework conditions for cruise operations in Norwegian waters:** Goal 23 in the new national tourism strategy until 2030, to clarify prerequisites for the cruise industry's activities in Norway. The national tourism strategy must help to enhance value creation and the green shift, with market developments that will help with attaining the goals; namely, enhanced local value creation with lower emissions. The Government has already adopted zero emissions requirements for the world heritage fjords by 2026. Strict requirements that apply only to limited areas may result in greater pressure from visitors and climate impact elsewhere along the coast of Norway. Extending this requirement to all Norwegian cruise ports should be considered, and this standpoint is supported by 13 of the major Norwegian cruise ports. These ports have also proposed a series of other measures, which include statutory authority to impose restrictions on the maximum number of cruise passengers and arrivals per day. This will help to reinforce the ability to manage the situation on a local level, which will be an important prerequisite going forward. It is therefore necessary to consider the framework conditions for cruise operations in Norwegian waters.

- **Destination-wide Quality management for sustainability:** Geiranger has been certified as a Sustainable Destination, a seal of approval given to destinations that work systematically to reduce the negative impact of tourism. In addition to providing visitors with enjoyable experiences, Geiranger wishes to preserve the local nature, culture and environment, strengthen social values, and be economically viable. The municipality and the travel industry cooperate closely to assure that the destination is a great place both to live in and to visit.

- **Green Fjord** is a partnership movement that seeks to achieve sustainable development of human activities within the Geirangerfjorden World Heritage Site and the surrounding area.

- The **Fjord Ranger Programme** is a newly developed communication programme for the Geirangerfjorden UNESCO World Heritage area.

- **Visitor Management Plan** (Lykkja, 2016): The Council for the WHS West Norwegian Fjords is the project owner, while management is under the Nærøyfjord world heritage park. Active partners are the municipalities, the travel industry, and local associations. Research to be carried out includes customer analysis, the customer journey, local value creation and usage stress limits. They collaborate with other research projects conducted in the region. The project is not yet completed and lies currently in the hands of the local municipality for further development and implementation.

- **"Green Quay" project in Stranda** with the Norwegian university NTNU (Hans Petter Hildre, Head of the Department of Ocean Operations and Civil Engineering). The new governmental regulations regarding zero-emission cruise also asks for great investments in the existing port. The facility will need to be supplied with shore power and charging stations for emission-free vessels. In addition, managing sewage and waste is also part of the requirement for zero emissions. From Stranda, the passengers can also switch to smaller, emission-free vessels that can take them inland into the Geirangerfjord and the protected area. (Ervik, 2021)

- **Promoting the off-season** winter period as the Viking season with new communication offensives and new developed offers to balance the seasons out more evenly and create more year around local jobs. (Interview)

- **Focus on socio-economic and cultural sustainability**: As a first success regarding the stricter environmental regulation could be achieved, current initiatives are focusing more on improving local quality of life, job creation, value creation, cultural aspect etc. There are projects trying to establish the Geirangerfjord as a cultural/art destination by providing the necessary infrastructure for exhibitions and music/art festivals, culture project, light art festival, artist residency, diff. project with local businesses. This should create more year around jobs and also attract a new customer segment that stays longer in the region than just a day visit. (Interview)

- The usage of **social media** has also led to increased dangerous behavior to get the perfect picture and has even resulted in several deaths as people have underestimated the dangers of nature. The WHS foundation has put in place different communication campaigns and increased signage with warnings in critical locations.

- **Tourist tax**: A pilot project to test the first tourist tax in Norway is currently under development. Especially in a small municipality like Geiranger with ~200 inhabitants, financing all the infrastructure that tourists need is extremely challenging. Thus, a tourist tax (on overnight stays, cruise arrivals etc.) could help to support financing infrastructure like public toilets etc. (Interview)

- **Dynamic Road Pricing**: There is a project under development to better distribute traffic by introducing dynamic road pricing (e.g. in form of tolls) for cars but also ship ways will be dynamically priced to better distribute tourism flows.

- **Site Management Project**: The WHS & local municipality have collaboratively commissioned a research project for the upcoming 4 years to develop new digital tools to make sustainable decision (the idea is to have a visual tool that show effects of different decision-making on the local area ranging from visual impacts, pollution levels, job creation etc.).

- **VR Reality Student Project** to use VR to make natural experiences of the fjords accessible to tourists that could otherwise not experience it (e.g. disability, not strong enough to hike)

Innovative aspects

What are the unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

- The Green Shipping Programme (GSP), a public-private partnership, aims to advance the Norwegian government's maritime strategies and plans. The programme emerged from collaboration between the classification and consultancy company DNV, the Norwegian Ministry of Climate and Environment, and the Norwegian Ministry of Trade, Industry and Fisheries. There are currently more than 60 partners from all parts of the shipping community – including observers representing the public authorities – and new members continue to join the programme.

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

- Long-Term Air Quality Monitoring Program (carbon-dioxide, sulfur dioxide, nitrogen oxide and water vapor etc.) by the research team of Prof. Löffler of University Bonn
- Monitoring of hiking trails (eco counters) to get a better understanding of visitor flows and take measures if necessary (though no live monitoring) (Interview)
- Under development: Monitoring for fjord water quality with NTNU to have additional environmental parameters to the existing air quality (Interview)

Challenges & success factors

What were the central challenges when planning, developing, and implementing the measures?

What were the central success factors when planning, developing, and implementing the measures?

Challenges

The overweighing economic interest especially at local level (local ports, cruise industry) and downplay of ecological impacts until hard scientific facts were available (air quality monitoring). These scientifically proven impacts were central to get the support from the national parliament to issue stringent regulation. Another challenge was the limited local power over international industry player like big cruise liners. It is difficult to involve them in local participation, projects and measurement (cf. Green Fjord initiative where they did not participate)

Success factors

Having taken the problem up to a higher political level when the progress on local levels is difficult and get independent (scientific) evidence for the impacts that have to be solved. (Interview)

Transferability to other destinations with similar characteristics

What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?

Within the Marine World Heritage Network there was great interest about the solution and regulation approaches that Norway took.

Additional comments on solution approaches

Are there other important aspects to understand the strategies/measures chosen?

- UNESCO demands Visitor Management Strategies and regular reports proving the sites are being well maintained.

6. Monitoring/indicators

Monitoring of overtourism situation
Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?
See indicators section 5.
Indicators used
What are indicators used for the observation? Which indicators have proven successful?
See indicators section 5.
Specific indicators
Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?
See indicators section 5.
Challenges and success factors of the monitoring
What are the challenges and success factors of the monitoring system/the indicators?

7. Management of the pandemic

Changes due to the pandemic
What has changed due to the pandemic? How has the pandemic influenced the tourism development? How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?
The pandemic has brought an extensive reduction in international visitors. However, some areas could also profit from an increase in Norwegian travelers that discovered their own country. In the perception of Norwegian, Geirangerfjord is a tourism hotspot that is rather avoided due to negative news reporting on overtourism. It was also an opportunity to explore these areas with less visitor pressures. It also gives hope for the future, that the focus away from international tourists could be successful and attract a new type of visitor. The overall strategy to deal with unbalanced tourism was not changed to the pandemic, the development with the pandemic was rather seen as a reinforcement to continue pursuing the chosen path.

8. Outlook & Additional Comments

Expected future changes
What are the expected changes in the future tourism development? What are the plans for post-covid tourism?
Currently there are many uncertainties involved regarding the recovery of international tourism. The plans toward more sustainability however, have not been impacted by the pandemic. It has rather reinforced them.
Risks and uncertainties
What are the most relevant risks and uncertainties currently?
Innovation of zero-emission cruise technology, timely upgrading of existing port infrastructure towards more electric cruise ships etc. (cf. Green Quay Project)
General recommendations
What are general recommendations that you'd like to share for destinations with similar challenges?
Reliable monitoring of current impacts and concrete measurements (e.g. through collaboration with Universities) allow for a better and more respected decision-making and might help to get hesitant stakeholders on board.
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Iceland

1. General Information about the destination

Case study item	Information	Data source
Destination name	Iceland	
Destination type	Island	
NUTS 3 Level	IS00	
Country	Iceland	
Region	Iceland	
Tourist area size (km2)	103 000 km²	(Statistics Iceland, n.d.-d)
Population		
inhabitants in destination	368 792 (2021)	(Statistics Iceland, n.d.-c)
inhabitants in tourist centre/core area	Capital region: 236 528 South: 31 388 South west: 28 195	(Statistics Iceland, n.d.-c)
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	Total GDP contribution: 21.8% (2019)/8.8% (2020) Number of jobs in travel and tourism: 43 200 and 21.5% (2019)/39 100 and 19.9% (2020)	**https://wttc.org/Research/Economic-Impact**
Importance of tourism in destination (GDP, employees)	Direct contribution of tourism to GDP in 2019: 8% Employed persons in tourism industry in 2019: 30 769	(Statistics Iceland, n.d.-e, n.d.-a)
tourist arrivals in destination (2015-2019)	International visitors to Iceland (by air and sea, excluding cruise ship passengers): 2019: 2 013 190 2018: 2 343 773 2017: 2 224 074 2016: 1 792 201 2015: 1 289 140	(Icelandic Tourist Board, n.d.-d)

overnight stays in destination (2015-2019)	International and domestic overnight stays: 2019: 8 406 291 2018: 8 548 886 2017: 8 375 600 2016: 7 808 276 2015: 6 469 881	(Statistics Iceland, n.d.-b)
day visitors, park entrances, cruise arrivals etc.	Cruise ship passengers in thousand: 2019: 516.2 2018: 424.2 2017: 362.5 2016: 276.6 2015: 229.3	(Icelandic Tourist Board, n.d.-c)
% tourism growth over the last 10 years	Foreign visitor arrivals increased by approx. 308% (from 493 940 in 2009 to 2 013 190 in 2019). International and domestic overnight stays increased by approx. 180% (from 3 004 629 in 2009 to 8 406 291 in 2019) The number of cruise ship passengers arriving at the port of Reykjavík increased by approx. 135.5% (from approx. 69 000 in 2009 to 162 476 in 2019)	(Icelandic Tourist Board, n.d.-d) (Icelandic Tourist Board, n.d.-c, 2010)

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available

Bed nights/residents in Iceland in 2019: 23.55

Number of tourists (including cruise ship passengers)/residents in Iceland in 2019: 7.08

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)

Bed nights/km^2 in Iceland in 2019: 81.6

Number of tourists (including cruise ship passengers)/km^2 in Iceland in 2019: 24.6

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

In Iceland visitor numbers have strongly increased after the financial crisis, resulting in a record number of approx. 2.3 million international tourists in 2018. During the last years before the pandemic particularly the capital, the capital area and the South of Iceland accounted for concentrated visitor numbers, resulting in crowding and pressure on the environment, residents and local infrastructure. At the same time, other parts of Iceland still seek higher visitor numbers (Sæþórsdóttir et al., 2020a). Also, tourism seasonality has been a major challenge, but during the last years it has considerably decreased. Thus, tourism pressure becomes visible during certain times in the most popular sites and attractions. The destination is a special case since it is a sparsely populated island, primarily nature-based and visited by most tourists because of its unique nature and landscape (Sæþórsdóttir et al., 2020a). Besides, there is no social movement positioning itself against tourism. Instead, a debate about sustainable tourism management in the sense that it “maximizes business and community interests” has risen (Sæþórsdóttir et al., 2020b, p. 13). Consequently, as outlined by the OECD (2020, p. 192) "the key challenge for Iceland is to maximise the gains from tourism while protecting the assets upon which tourism depends. Tourism growth has increased pressure on nature, infrastructure and society".

Additional general remarks
Iceland is with 368 792 inhabitants living on 103 000 km² the least densely populated country in Europe.

2. Tourism development

Tourism Development
How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic?
Short description of recent development
Last years before the pandemic: • Between 2010 and 2019 rapid growth of tourist numbers. Strongest increase of tourist arrivals in 2016 (39) (Icelandic Tourist Board, n.d.-d). • During the past years before the pandemic, first signs that the Icelandic tourism economy was about to come into equilibrium (Interview, Visit Iceland). • In 2019, decrease of growth rate in comparison to 2018 by 14.1%, probably as a result of a combination of factors (strengthening of the Icelandic currency krona, the collapse of the Icelandic low-cost airline *WOW Air* (McClanahan, 2020) and the grounding of the Boeing 737 MAX (Interview, Visit Iceland)).
During the pandemic: • In 2020, dramatic decrease of foreign visitor arrivals by 75.8% (Icelandic Tourist Board, n.d.-d). Also strong decrease of cruise ship passengers (counted separately as day visitors) by 99.6% . At the same time, increase of the percentage of domestic overnight stays increased from 13% in 2019 to 44,5% in 2020 (Statistics Iceland, n.d.-b). • According to media, until restriction of entrance regulations by the Icelandic government on August 19th 2020, good performance of summer season of 2020 considering the Covid-19 situation (McClanahan, 2020). Due to the new regulation of obligatory quarantine for every visitor, the number of tourist arrivals fell drastically (see Figure 5). • On January 15th 2021 reopening of boarders for fully vaccinated tourists traveling from the European Union/Schengen zone and on April 6th 2021 also for vaccinated travellers outside of the European Union/the Schengen zone (Interview, Visit Iceland). On June 15th Iceland started to offer as one of the first destinations Covid-19 tests at the airports. • During the summer of 2021 tourism started to recover and the current outlook (August 2021) is perceived as quite positive (Interview, Visit Iceland; Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation).

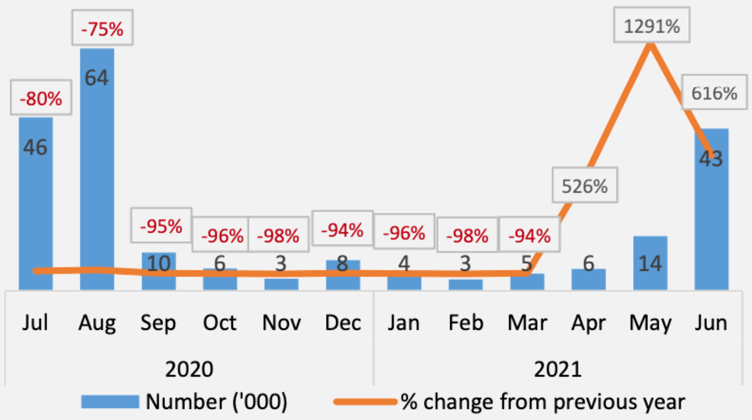

Figure 5: Passengers at Keflavik Airport per months between July 2020 and June 2021 (Source: Icelandic Tourist Board (2021)

Visitor segments (Share and/or numbers)

What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.

- In 2019, international tourist accounted the great majority of overnight stays (87%) (see Statistics Iceland, n.d.-b)
- For most of them, holiday is the main purpose (88.8% in 2019) (Icelandic Tourist Board, 2020).
- The most important source markets (50.4% of international visitors) are (Icelandic Tourist Board, 2019, 2020): USA (23.4% in 2019), United Kingdom (13.2% in 2019), China (7.0% in 2019), Germany (6.7% in 2019) and France (4.9% in 2019). Thus, in 2019 the USA and the UK were the most important source markets for the USA, followed by China as an emerging source market.
- The average length of stay of international visitors was 6.6 days in 2019 (Icelandic Tourist Board, 2020). German and French tourists stayed in average the longest (8.8/8.6 days), while the visitors from the USA and UK stayed in average 5.6, respectively 5.0 days.
- Most of the international visitors, 57.6%, booked in 2019 their overnight stay in a hotels or guesthouses, 16.1% in an Airbnb or similar accommodation form and 26.3% in other accommodation forms (Icelandic Tourist Board, 2020).

Temporal distribution/seasonality

When are the temporal peaks (if any)? How is the seasonal distribution of visitors? Explanation and numbers (if available)

As shown below, most of the overnight stays are in the capital region, followed by the Southern region. Both regions visited by most tourists during the summer month, with peaks in August respectively July (see Figure 6). Nevertheless, in comparison to the beginning of the growth of tourism in 2010, instead of 50% in 2019 34% of all visitors arrived between June and August at the national Keflavík airport (Icelandic Tourist Board 2021 in Sæþórsdóttir et al., 2020b, p. 6).

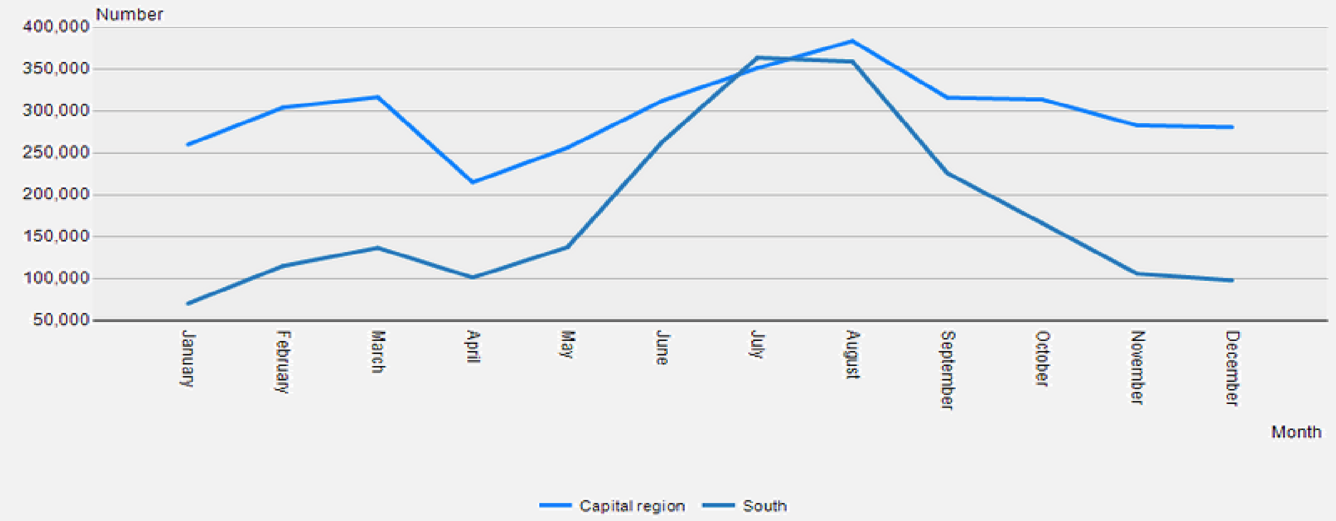

Figure 6: Monthly overnight stays in capital region (Light blue) and Southern region (dark blue) in 2019 (Source: Statistics Iceland (n.d.-b))

When considering the distribution of the arrivals of the top five countries in Iceland, seasonality is less pronounced. An exception is the most important source market, the USA, with strong peaks between June and August. (Icelandic Tourist Board, 2020).

The room occupancy rate in 2019 was in average 64.5% (Icelandic Tourist Board, 2020). With 82.6% the highest average occupancy rate was accounted in Iceland in August. Besides, in 2019 the longest stay of international visitors were accounted in August (8.4 nights) and July (8.0 nights) and the shortest in January (4.5 nights) and February (5.1 nights) (Icelandic Tourist Board, 2020).

Spatial distribution

What are the tourism hotspots? How is the spatial distribution of visitors?

Explanation and numbers (if available)

As Figure 7 shows, in 2019 91% of international visitors visited the capital region of Iceland in which the popular Blue Lagoon, Reykjavík city and the Golden Circle route (including Þingvellir National park, one of the three UNESO sites in Iceland, as well as Geysir and Gullfos) are located. 75% visit the Southern Region and its coast and 58% Reykjanes, the Southern Peninsula. 46% visited the Western region (Icelandic Tourist Board, 2020). Coherently also most of the overnight stays are in the capital region (42.7% in 2019), followed by the South region (25.5%).

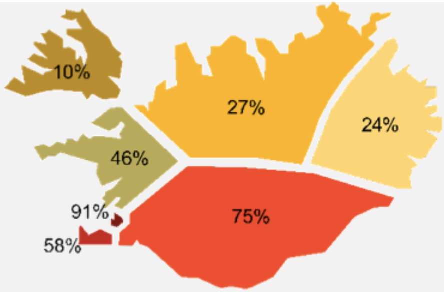

Figure 7: Regions visited by international visitors in 2019 (Source: Icelandic Tourist Board (2020))

Additional tourism figures

Are there any other important numbers/aspects to understand the tourism situation in the destination?

3. Tourism management in the destination

Organisation of tourism & stakeholders

How is tourism in the destination organised? Which authorities are responsible for tourism?
Who are the central stakeholders involved in tourism management and development? What are the responsibilities of the different stakeholders?

Tourism governance: A complex hierarchy of public and private organizations exist to manage tourism at all levels (see below).

Tourism businesses:

- Primary small, often family-run tourist businesses and some large companies dominate the Icelandic tourism industry. One of the country's largest travel organization has been for several years the *Icelandair Group Ltd*. Recently, as a response to the increasing tourism demand and a development in the Icelandic tourism industry towards a balance, more tourism company have merged and thus, increased in size, leading to a shift in ownership (Interview, Visit Iceland).
- The interests of the Icelandic tourism industry are represented by the ***Icelandic Travel Industry Association*** **(SAF)** which was founded in 1998. Its objective is to "to promote and protect the common interests of its member companies and support its members in the improvement of their services and operation" (Icelandic Travel Industry Association, n.d.). SAF also stresses its emphasis on qualitative and sustainable tourism.
- The ***Icelandic tourism Cluster Initiative*** is a privately run cooperation of private and public members from all over the touristic value chain. The initiative was established in 2015 and its main objective is "to promote competitiveness and value creation within the Icelandic tourism industry, and to develop a co-operating forum for different stakeholders where the main focus is on linking them together and opening up for interaction between them" (Iceland Tourism Cluster, n.d.). A major focus of the projects is put on sustainable and responsible tourism development (Interview, Representative of Icelandic Tourism Cluster).

The ***Icelandic Tourism Research Centre*** (ITRC) is a cooperation of Icelandic universities supporting tourism stakeholders with science based research.[1]

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

- **Ministry of Industries and Innovation:** responsible for tourism and the tourism policy of Iceland.
- ***Icelandic Tourist Board*** (ITB): independent authority under the Ministry of Industries and Innovation, responsible for monitoring and promoting "the development of tourism as an important and sustainable pillar of the Icelandic economy, having regard to the carrying capacity of Icelandic nature and society, as well as facilitate coordination, analyses and research in the tourism sector in accordance with government policy" (Icelandic Tourist Board, n.d.-a).
- ***Business Iceland*** (formerly *Promote Iceland)*: public-private partnership, "established to improve the competitiveness of Icelandic companies in foreign markets and to stimulate economic growth through increased export" (Business Iceland, n.d.).
- ***Visit Iceland***: Official destination marketing office responsible for the promotion of Iceland as a tourism destination is ***Visit Iceland***[2].
- In general, visitor attractions are planned and managed at **municipality level** (OECD, 2020). The associations of municipalities implement with support of the Development Agencies for the planning and management various tourism projects such as the establishment of touristic routes.
- **Destination Management Organisations:** seven DMOs (until recently regional marketing offices) promote the respective regions in collaboration with *Business Iceland* and the ITB, which also supports them financially. They have been assigned more responsibility, not only in terms of marketing but also regarding regional tourism development, including "data collection, innovation, product development, skills, digitalisation and marketing" (OECD, 2020, p. 192).

***Road Map for Tourism in Iceland*:**

- Important 5-year action plan for the sustainable tourism development of Iceland, presented in 2015 by the Ministry of Industries and Innovation and the *Icelandic Travel Association*.
- Focus on seven key elements (Ministry of Industries and Innovation & Icelandic Travel Industry Association, 2015, p. 2): "Coordinated management of tourism, Positive visitor experience, Reliable data, Nature conservation, Skills and quality, Increased profitability, Better distribution of tourists".
- Main objective: provide a solid foundation for devising a strategy for future sustainable tourism development (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation).
- It was developed using a multi-stakeholder approach and also taking the experiences made in other popular tourism destinations into account.

Tourism Task Force

- initiated in order to operate based on the road map until 2020 and to oversee its implementation.
- Its board consisted of ministers from the four main areas connected to the tourism industry, representatives from the tourism sector and local municipalities and had the main function to coordinate measures and find solutions with relevant stakeholders.

[1] Official website of the ITRC: https://www.rmf.is/en .
[2] Official tourism information website for Iceland: https://visiticeland.com .

- A new **Tourism Council** will overtake the coordinating role the Tourism Task Force had (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation). The Tourism Council will consist of representatives of the ministers from the main areas connected to tourism. Besides, representatives from the tourism industry and local authorities will take part.

Tourism Policy Framework 2020-2030

- Long term tourism vision with a focus on sustainability published in 2019.
- Guiding framework for the development of a new action-oriented strategy for a sustainable tourism development in Iceland, it represents the future vision of tourism (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation).
- It was planned to use the framework in combination with the *Tourism Balance Axis* (*see indicator section*) in order to develop a tourism strategy for a time period of five years. Due to the Covid-19 situation and the upcoming elections in Iceland in September 2021, further development of the strategy is on halt.
- However, the current *Tourism Policy Framework* is still valid and represents the main policy document for tourism development.

Icelandic Government Agreement & Budget Plan of Iceland

- Another main policy guideline document of the island is the Icelandic Government Agreement. It briefly presents central action fields in tourism, such as developing a long-term tourism policy in collaboration with the tourism industry and focusing on sustainability as its guiding principle (Government of Iceland, n.d.). It also refers to the need of dispersing visitor flows more evenly across the island.
- The Budget Plan of Iceland presents the detailed budget planning of the country and is developed for a timeframe of five years and each year updated (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation).

Regional Destination Management Plans (DMPs)

- Plans specifically for the seven Icelandic regions developed in 2018 and 2019 by the Tourism Task Force in collaboration with the *Icelandic Tourist Board* (OECD, 2020).
- "Joint policy statements intended to; steer growth and development of areas over a certain amount of time; define stakeholders' roles; specify certain actions that each stakeholder is responsible for and what resources they need to carry out their responsibilities" (Icelandic Tourist Board, n.d.-b).

Additional comments:

Are there any other important facts to understand the tourism management in the destination?

With the emergence of the new buzzword overtourism in 2016 and the concurrent developments in Iceland, the island has in the past years been increasingly presented in the media as an example destination suffering from its popularity and high tourism pressure (Sæþórsdóttir et al., 2020a). However, when considering the size of the Iceland, the tourism density is much lower than in other destinations (Interview, Visit Iceland).

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers
What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)
Since end of the 21st century, tourist numbers increased for the first time rapidly in Iceland. Between 1997 and 2007 tourist arrivals doubled (even though the numbers also include migrant workers) and already in 2010 Iceland was considered to have reached "a critical point in its development as a tourism destination" (Gunnar et al., 2010, p. 281). However, in the second decade of the 21st century years tourist arrivals increased more drastically by approx. 308% from 2009 to 2019. By 2017, the tourism industry was the most important export sector of the island (Sæþórsdóttir et al., 2020a, p. 8).
Root causes: • "Access and entrepreneurism" as the two key driving forces for the first period of tourism growth (Gunnar et al., 2010, p. 289). • First international flight passengers in 1940s (Sæþórsdóttir et al., 2020a). • In the 1970s a coastal road was constructed and since the 21st century, increased usage of traditional harbours by cruise ships. • Due to decline of fisheries in the mid 1980s and low entrepreneurial barriers in the tourism sector, increase of number of tourism companies.
Sudden, unpredictable events: • Decreased value of the national currency krona because of the financial crisis and thus, travelling to Iceland became more affordable for foreign visitors (Baraniuk, 2017; Sæþórsdóttir et al., 2020a), also due to cheaper and better flight connections (Reigner & Reynisdóttir, 2021). • The eruption of the volcano Eyjafjallajökull in 2010 resulted in a high presence of Iceland in foreign media. It can be considered a "natural boost" for tourism demand (Jóhannesson & Lund, 2019, p. 119), even though media report was feared to be not entirely positive for the image of the destination. Thus, the marketing campaign *Inspired by Iceland* was initiated, promoting Iceland as a save and attractive destination (Reigner & Reynisdóttir, 2021; Sæþórsdóttir et al., 2020b).
Resulting effects: • A stronger orientation towards the tourism sector, the fluctuation, marketing efforts as well as a higher media presence of the island resulted in rapidly increasing tourist numbers. • As the most sparsely populated destination in Europe with the great majority of the residents living in the capital region, 2.3 million visitors (2018) result in disbalances.
New trends: • Increasing popularity of individual travellers, enhanced by peer-to-peer accommodation offers, inexpensive low cost carriers and rental car offers. • The proliferation of *Airbnb* and similar platforms have contributed to the dispersal of visitors to residential neighbourhoods and increase of housing and rental prices (Peeters et al., 2018, p. 205). In addition, Iceland has become a popular destination of cruise ships. • Promotion of Iceland on social media, particularly *Instagram*, by influencers and in television series such as *Games of Thrones*, films and music videos (Reigner & Reynisdóttir, 2021; Sæþórsdóttir et al., 2020a).
Destination factors: • Attractions in the South region are closely located to the capital and thus, easily accessible during a day tour, while other destinations are more difficult to access, contributing to an uneven spatial distribution (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation).

- Stopover program of the Icelandic national airline *Icelandair* offering a free stop in Iceland for passengers traveling over the Atlantic (Baraniuk, 2017; Sæþórsdóttir et al., 2020a), has encouraged a further increase of visitor numbers in the already popular capital and its surroundings.
- Tourism-orientated urban projects in the city of Reykjavík (Peeters et al., 2018, p. 205).
- The image of Iceland as the most sparsely populated country in Europe and a nature-based destination often leads to the expectation to encounter only few people and affects tourists' perceptions and experiences in popular areas (Interview, Visit Iceland).

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders?
Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

Impacts on infrastructure

- **Congestion** at popular sites and attractions (Baraniuk, 2017) as well as traffic congestion (Sæþórsdóttir et al., 2020b).
- The **traffic infrastructure** such as the road system, main harbours and airports are challenged by the increasing tourist demand, possibly exceeding their carrying capacity (Efla in Sæþórsdóttir et al., 2020b).
- **Lack of infrastructure and sanitary facilities** at popular sights (Efla in Sæþórsdóttir et al., 2020b), partly resulting in an **uncivil behaviour** of visitors.
- The increased demand of **sewage treatment and waste disposal** exceeds local carrying capacity (Efla in Sæþórsdóttir et al., 2020b). Also other local services such as **healthcare and law enforcement** are increasingly under pressure.

Impacts on environment:

- Pristine nature as it is the prime resource of the Icelandic tourism industry (Gunnar et al., 2010, p. 294), however popular natural tourist areas, particularly the highlands, are increasingly affected by tourism pressure (Baraniuk, 2017), leading to **degradation of environment, landscape and infrastructure** and a decline in their quality (Sæþórsdóttir et al., 2020a, 2020b)
- **Uncivil behaviour** such as off-road driving (Baraniuk, 2017), littering and human waste (Sæþórsdóttir et al., 2020a) exert pressure on nature.
- However, tourism has also sensitized for **environmental protection** and financed environmental protection programs (Reigner & Reynisdóttir, 2021)

Impacts on local economy

- **Increase of real estate values** in the capital, including the increase of rental price and an increased touristic rental of residential housing (Helgadóttir et al., 2019; Peeters et al., 2018, p. 205). Also **inflation** and a **marginalization of locals** are perceived (Sæþórsdóttir et al., 2020b).
- **Change of commercial structures**, physical appearance and atmosphere in the centre of the capital (Sæþórsdóttir et al., 2020a). Shops are increasingly orientating on tourists' demand, particularly increase of souvenir shops (Helgadóttir et al., 2019; Jóhannesson & Lund, 2019).
- **Related industries** such as the food sector are challenges to meet the increased demand for local ingredients (Baraniuk, 2017).
- **Low quality of the tourism job market**, more specifically low salary and limited career opportunities (Bjarnadóttir, E.J.; Arnalds, Á.A.; Víkingsdóttir, A.S. in Sæþórsdóttir et al., 2020b, p. 8), high percentage of foreign workers (Reigner & Reynisdóttir, 2021).
- **Challenge of distributing the socio-economic benefits of the tourism growth equally** due to uneven spatial demand (Luxton, 2018). However, residents also perceive that the growth of tourism demand entails positive socio-economic impacts such as **increased diversity, service**

levels, revenue and employment (Bjarnadóttir, E.J.; Arnalds, Á.A.; Víkingsdóttir, A.S in Sæþórsdóttir et al., 2020b, p. 8). In addition, tourism contributed to a **decrease of flight costs**, making also for residents travelling to other countries more affordable (McClanahan, 2020).

Impacts on social environment

- **Gentrification** in the city centre of Reykjavík (Peeters et al., 2018, p. 205) and residents of popular tourist areas feel that the visitor numbers are too high (see below).
- Media report a **disruption of local everyday life** due to tourism and consequently, a decrease of quality of life (Sæþórsdóttir et al., 2020a). However, residents also perceive that tourism improves the quality of life (jarnadóttir, E.J.; Arnalds, Á.A.; Víkingsdóttir, A.S. in Sæþórsdóttir et al., 2020b, p. 8). The additional amount of services and activities have facilitated an **expansion and improvement of infrastructure** (Interview, Visit Iceland).
- Partly **conflicts between residents and tourist industry** arise e.g., due to rude behaviour, high pricing in gastronomy services and blocking of traffic (Helgadóttir et al., 2019).

Impacts on visitor experience

- An **increase of accommodation prices** can be observed (princes doubled between 2010 and 2016 according to *Iceland Monitor* (2016)).
- Several popular sights and areas are perceived as too crowded, affecting the **quality of the visitor experience** (Sæþórsdóttir et al., 2020b).
- Due to an increase of traffic, **roads have partly degraded**, which makes it more dangerous to travel (Reigner & Reynisdóttir, 2021).

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

Residents:

- Icelanders seem to have generally positive attitudes towards tourism, even though according to surveys, the number of residents evaluating tourism as positive has decreased between 2015 and 2018 from 80% to 68% (Market and Media Research in Sæþórsdóttir et al., 2020a, p. 8).
- However, the level of satisfaction with tourism also varies depending on the season, the place of living and the survey methods (Sæþórsdóttir et al., 2020b). During the peak season in summer, residents seem to perceive tourism more negatively (Bjarnadóttir, E.J.; Arnalds, Á.A.; Víkingsdóttir, A.S. & Social Science Research Institute in Sæþórsdóttir et al., 2020a, p. 8).

Tourists:

- According to surveys conducted by the *Icelandic Tourist Board* (2020), international visitors evaluate their experience in Iceland very positively with 83% recommending Iceland further as a travel destination (in contrast to 3% of the visitors unlikely to recommend it further).
- However, at popular sights some tourists perceive crowding negatively: At the popular attractions Þingvellir National Park, Geysir, and Jökulsárlón, the destination Landmannalaugar and in the capital visitors complain about crowding, even though, similar to residents, the perception varies depending on the season (Sæþórsdóttir et al., 2020a, p. 9).

Local businesses:

- Local tourism businesses experienced a sudden and high demand, resulting in managerial challenges and partly in a decrease of quality of the tourism offers (Interview, Representative of Icelandic Tourism Cluster).
- Particularly accommodation businesses in the capital were reaching their capacity limits, which is why the platform *Airbnb* met a high demand. Even though the tourism revenue was quite high, investments were needed to adapt to the recent developments, and several tourism business were not able to build up financial reserves.

Capacities & bottlenecks
What are the central capacity challenges and main bottlenecks?
Tourism has increased very rapidly and strongly during the past decade, resulting in planning and infrastructural challenges (Jóhannesson & Lund, 2019). The island's infrastructure and tourism services did not yet have the required capacity to welcome the high and concentrated number of tourists (Interview, Visit Iceland). Besides, statistics and numbers available for tourism planning were lacking. Tourism demand is primarily focused on the capital and its surroundings, the southwest of the island and on the Reykjanes peninsula. Other attractive attractions and sites have been less visited, particularly due to a certain dependency on the weather and a lack of access and human resources (Gunnar et al., 2010). Besides, tourism demand has been also very seasonal, even though seasonality has considerably decreased during the last years. Consequently, tourism is spatially and partly temporally concentrated and exerts during certain times pressure on certain parts of the island, particularly on its main attractions which are based on the island's "unique" and "unspoilt" nature (Sæþórsdóttir et al., 2020a).
Additional comments on the overtourism situation Are there any other important aspects to understand the unbalanced tourism situation in the destination?

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism
What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved? **What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?**
Marketing Strategy of Visit Iceland: The three focus points of the Tourism marketing strategy directly address the current challenges associated with unbalanced tourism growth (Interview, Visit Iceland): 1. **Market Iceland as a year-long destination:** In 2012 Iceland accounted for the highest seasonality of all Nordic countries. However, after actively addressing this challenge, the island reported in 2015 the second lowest seasonality after Finland and in 2019 60% visited the country outside of the summer season, indicating a shift in seasonality. The deseasonalisation of tourist arrivals is an ongoing focus of *Visit Iceland*. Central measures in order to reduce seasonality include the promotion of winter activities in Iceland and the organization of press trips outside the summer season. 2. **Encouragement of visitors to travel all around Iceland:** Visitors are actively encouraged to visit the entire island, not only selected parts such as the Capital and the Southern region. A major challenge concerning the spatial distribution of visitors is that the great majority of all tourists enter at the Keflavík airport located in the South West corner of the island. Consequently, it is challenging to encourage visitors to travel also to the Northern and Eastern part of Iceland. Central measures include marketing all seven Icelandic regions, and thus, promoting the awareness of other, less known regions of Iceland. Examples are the recent *Let it Out* Campaign or the development of human search engines for all seven regions. 3. **Encouragement of responsible tourist behaviour:** Iceland has a very unique landscape and culture, different to what many visitors have experienced so far. At the same time, it is difficult to limit access to sensitive natural areas, which is why marketing is used as a tool to educate visitors for a respectful behaviour. Central measures are

- **The Iceland Academy**[3]: digital video academy developed with the objective of educating tourists on responsible tourism and prepare them for their stay in Iceland, while at the same time promoting the destination. The academy covers a range of relevant topics for a responsible behaviour while travelling in Iceland, such as how to drive (not off road) in Iceland. The videos have been very popular with in total 10 million views (Luxton, 2018). Another educational project developed is the A-Ö of Iceland song (equivalent to A-Z alphabet).
- **Icelandic Pledge:** a voluntary code of conduct visitors can sign online, committing themselves for a respectful behaviour while staying in Iceland.[4] In July 2021 more than 82 000 people had signed the pledge.
- Also, when working with influencers or journalists the representation of a save, responsible behaviour is a central aspect.

Tourist Site Protection Fund (2011):

- Fund established by the Ministry of Industries and Innovations and supervised by the *Icelandic Tourist Board* in order to "promote the development, maintenance and protection of tourist attractions and tourist routs anywhere in Iceland, which are owned or managed by municipalities or privately owned and managed" (Icelandic Tourist Board, n.d.-e). It is also used in order to ensure tourist safety and protect Icelandic nature.
- It is a tool for increasing the number of tourist sites visited by tourists, reducing the pressure on frequently visited tourist sites.
- The Tourist Site Protection Fund Board proposes each year fund allocations to the Minister of Tourism, Industry and Innovation. It consists of representatives of the *Icelandic Travel Industry Association*, the *Icelandic Association of Local Authorities in Iceland*, the Minister for the Environment and Natural Resources, and one without nomination who also acts as chairperson. Since its establishment, the budget of the fund has considerably increased (Interview, Visit Iceland; Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation).

National Infrastructure Plan (2016):

- In contrast to the Tourist Site Protection Fund, which is used for financing infrastructure at attractions located on private or municipal land, the plan is implemented for public attractions, e.g., in national parks and protected areas (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation).
- Both measures are used in combination in order to improve and expand infrastructure. Furthermore, some municipalities and private landowners also invest in local infrastructure.

Icelandic Route Development Fund (2015)*:*

- Initiated in order to counter the challenge that most people arrive at the airport located in the South West of the island, close to the capital (Interview, Visit Iceland; OECD, 2020). The fund promotes a greater air access to regional airports.
- Besides, the airport Akureyri located in the North of Iceland has started to operate direct international flights, resulting in an increase of overnights in all regions (Reigner & Reynisdóttir, 2021).

[3] Official link: https://visiticeland.com/iceland-academy.
[4] Official link: https://visiticeland.com/pledge.

Regulations related to tourism:
A range of regulations have been approved, influencing tourism development (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation)

- Regulation of short-term rentals and home sharing (including Airbnb) through a national legislation implemented in 2017 and limiting home sharing to 90 days per year and household
- The city of Reykjavik implemented a moratorium on new hotel constructions certain areas in the city centre
- The city also introduced a regulation of traffic by designating pickup spots for tourist buses to reduce bus traffic in residential streets
- Regulation allowing municipalities outside of Reykjavík to apply parking fees
- Local regulation making it illegal to spend the night in a tent, a camper van or RV outside designated campsites
- In 2021 adoption of a new legislation, regulating the operation of private tour operators on public land

Sites of Merit/Varða (2019):

- In April 2019 the development of a holistic destination management system was initiated by the Ministry of Industries and Innovation in cooperation with the Ministry for the Environment and Natural Resources.
- Destinations are evaluated using a set of soft criteria and, if considered as unique and in accordance with the project vision, awarded with the *Sites of Merit* label[5] (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation).
- It is implemented in accordance with the overall future tourism vision 2020-2030 and represents a new approach since it focuses on the sustainable development of individual destinations and thus, allows their detailed assessment, and a more holistic management.

Start-up tourism accelerator programme:

- The programme has the objective to promote innovation in tourism by supporting new Icelandic companies in developing tourism projects which support the spatial and temporal distribution of tourists (OECD, 2020). It is considered a successful project since it has supported innovation and the establishment of new companies and innovative products in the tourism sector (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation).

Innovative aspects

What are the unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

- The *Icelandic Tourist Board* is currently working on a range of digitalization projects. Among others, it is developing a **digital toolbox** which analyses and maps the digital needs of tourism companies and supports the identification of appropriate solutions (OECD, 2020; M. Reynisdóttir, personal communication, August 11, 2021). Besides, a **digital sandbox**, a platform with the aim of promoting collaboration and exchange between tourism and tech companies, has been established.
- *Visit Iceland* is also currently implementing a range of projects using new technologies, such as the introduction of human search engines and the online webinars of the Icelandic academy.
- In addition, the Icelandic government is implements the project *Digital Iceland*, which consists of the digitalization of public services, and includes some initiatives in the field of tourism (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation). Examples are the digitalization of licencing processes and the digital domestic travel vouchers during the Covid-19 crisis.

[5] Further information is available in the official Policy document of the Sites of Merit project (available in English): https://www.stjornarradid.is/library/01--Frettatengt---myndir-og-skrar/ANR/FerdaThjonusta/Varda-%20Policy%20document.pdf .

Impact measurement
Do you measure the effectiveness of the strategies/measures implemented? How?
• The *Icelandic Tourist Board* publishes monthly key figures, including information on tourism seasonality and spatial dispersal of tourists. • Besides, *Visit Iceland* measures the effectiveness of the implemented marketing campaigns. • The tourism vision 2030 and the Icelandic Budget Plan contain specific goals which can be measured, using inter alia the tourism key figures published by the ITB. However, the actions implemented during the last years show that not all measures can be measured with hard figures.
Challenges & success factors
What were the central challenges when planning, developing, and implementing the measures? **What were the central success factors when planning, developing, and implementing the measures?**
(Interview, Department of Tourism and Innovation, Ministry of Industries and Innovation) • The initiation of the *Tourism Task Force* and the *Road Map for Tourism in Iceland* represented important steps for a sustainable tourism development encouraging a wider coordination of tourism and promoting awareness of the importance of tourism, as well as a stronger stakeholder collaboration. Still, there is a great variety of stakeholders and organizations with different interests. • The development of infrastructure with the *Tourist Site Protection Fund* and *National Infrastructure Plan* has been very successful and is now supported with a larger budget. However, it also leads to the question of how much infrastructure can be built without potentially damaging the tourism experience. In this context, also the per Icelandic everyman's right represents a challenge, since it makes any kind of spatial limitation difficult. • The shift from a marketing focus to a management focus is very important, though it takes time. The establishment of the seven regional DMOs represents an important step . However, this transformation is still in progress and its effects still remain to be seen. In addition, a strong collaboration between the tourism marketing and management functions is important.
(Interview, Representative of Visit Iceland*)* • The measures introduced in order to counter seasonality have had a very positive effect. The strong visibility of Iceland as a destination outside of the summer season was supported by further measures and factors. For example, *Isavia*, the company responsible for the operation and development of all airports in Iceland, has also actively encouraged airlines to fly to Iceland during the low season. • The greater spatial distribution of visitors has resulted more difficult. It still remains a challenge to even the unequal spatial demand out. In this context, the very unpredictable weather conditions of some regions and different seasonality depending on the regions represent a challenging, external factor. • In general, the maintenance of a strong stakeholder dialogue, also throughout the Covid-19 crisis, represents another major success. The tourism organizations and tourism industry maintain a strong conversation and, based on the tourism strategy, work collaboratively on the same objectives. Central measures include tourism stakeholder meetings. In this context, the Covid-19 crisis has had the effect, that it brought people even more together throughout online meetings and included also stakeholders in remote areas more in the conversation. • Another success factor have been increasing efforts regarding statistics and research in tourism. While formerly there was a lack of current numbers on tourism, today's tourism decision making can be based on profound research and updated tourist statistics.

Transferability to other destinations with similar characteristics
What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?
(Interview *Visit Iceland* & Interview, Department of Tourism and Innovation, Ministry of Industries and Innovation) • Coordination/collaboration and the usage of data are two essential action fields and should receive a lot of attention. • For the implementation of recent measures, a strong stakeholder collaboration is vital. In order to encourage coordination, a multi-stakeholder approach should be used as well as a strong awareness-raising among national authorities and different sectors (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation). Iceland has the advantage that, due to its small population size, tourism organisations and companies are well connected and work very closely on the same common tourism objectives (Interview, Visit Iceland). • In addition, sound tourism data are essential, in order to monitor, analyse and predict tourism development. • Besides, moving the focus from marketing to management, using marketing as a management tool, is essential (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation). Thereby, should not be considered as opposites but be merged instead.
Additional comments on solution approaches Are there other important aspects to understand the strategies/measures chosen?
In summer 2021, residents' have been travelling a lot within their own country and thus, perceived the strengthening of the tourism infrastructure and new service during the past years very positively, contributing to an awareness of the positive impacts of tourism (Interview, Visit Iceland).

6. Monitoring/indicators

Monitoring of overtourism situation
Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?
Environmental Assessment Tool: • The Icelandic Environmental Agency uses a grading and colour light system in order to monitor the status of natural resources and infrastructure at individual attractions (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation). • If an area is experiencing environmental damage due to high pressure it is considered as an "orange" or "red" area. • In the evaluation of the state of pressure, the special conditions of certain times of the year are considered. For example, in spring nature is often due to thawing conditions particularly fragile to pressure. • The assessment is performed for protected areas under the management of the Environmental Agency, of which most are tourist sites. However, other actors, such as municipalities or landowners, can use the tool as well. • In the past, certain areas have become (temporarily) restricted to tourist usage. An example is the canyon of Fjaðrárgljúfur shown in the music video *I'll show you* by Justin Bieber in 2015 (Interview, Visit Iceland).
Tourism Balance Axis (formerly called *Tourism Impact Assessment)* • Developed by the Tourism Task Force for the Ministry of Industries and Innovation since 2017. In 2019 first results of the tool were published. • Based on a set of indicators assessment of the economic, environmental, infrastructural and socio-cultural tourism pressure on key components of the infrastructure related with tourism on a national level. It is foreseen that the Tourism Balance Axis can determine whether specific action needs to be taken, depending on the current status and future scenarios.

- The formerly mentioned Environmental Assessment Tool is used for the environmental evaluation within the Tourism Balance Axis. Together with the new Tourism Policy Framework the Tourism Balance Axis represents a central step and tool for future decision-making and sustainable tourism development.

Since 2019 the *Icelandic Tourist Board* publishes monthly the report *Iceland in figures*[6]. The years before (2009-2018) it was published annually. Besides, the *Icelandic Tourism Dashboard*[7] was recently established by the ITB.

Indicators used

What are indicators used for the observation? Which indicators have proven successful?

- The *Tourism Balance Axis* is based on a set of in total indicators which evaluate the touristic footprint in the main categories economy, infrastructure, social services and society. The indicators are currently in development.
- Macroeconomic indicators, e.g. share of tourism in GDP, contribution of tourism in economic growth and wages in tourism per hour
- Infrastructure indicators, e.g., accident rate, flight movements, cruise ship arrivals per day and condition of infrastructure and nature.
- Social service indicators, e.g., share of foreign tourists in total hospital arrivals and number of foreign nationals involved in traffic accidents.
- Society indicators, e.g., satisfaction with the number of tourists, disturbance in daily life and probability of tourists visiting Iceland again.
- The monthly publication *Iceland in figures* contains key figures about recent tourism development, including international visitor numbers at the airport Keflavík, main purpose of visit and length of stay, evaluation of the visitor experience, overnight stays and room occupancy.
- The *Icelandic Tourism Dashboard* includes in English information on the number of visitors at different tourist attractions, tourism arrivals per flight, cruise ships and ferry, as well as the hotel overnight stays. However, more information are available in Icelandic.

Specific indicators

Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?

Seasonality: The ITB represents in its monthly report *Iceland in figures* the monthly tourism arrivals divided by their main source markets. Furthermore, it displays the average room occupancy rate of the different regions throughout the year.

The number of day visitors are equivalent to the number of cruise tourists. Data on cruise ship passengers is for example accessible on the *Icelandic Tourism Dashboard*.

Private accommodation: The *Icelandic Tourism Dashboard* presents (in Icelandic) numbers on *Airbnb* accommodations in Iceland.

Perception of residents: The *Icelandic Tourism Research Centre* conducts every three year surveys in order to evaluate residents' tourism perceptions. It is foreseen to conduct them annually.

Challenges and success factors of the monitoring

What are the challenges and success factors of the monitoring system/the indicators?

(Interview, Department of Tourism and Innovation, Ministry of Industries and Innovation)

[6] Available on the website of the Icelandic Tourist Board under the following link: https://www.ferdamalastofa.is/en/recearch-and-statistics/tourism-in-iceland-in-figures.

[7] Official website of the Icelandic Tourism Dashboard: https://www.maelabordferdathjonustunnar.is/en/.

- In the past years, research and data collection in tourism has considerably improved, which represents a major success. However, the next step, the interpretation and thus, usage of these data for sustainable decision-making, must still be further implemented. Therefore, it is important to find a system which allows to regularly monitor results, interpret them and take decisions based on these data.

Additional comments on monitoring/indicators: Are there other important aspects regarding the monitoring?

7. Management of the pandemic

Changes due to the pandemic

What has changed due to the pandemic? How has the pandemic influenced the tourism development?
How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?

- Agile and quick reaction of the Icelandic tourism sector to current developments and restrictions.
- Continuation with the same marketing and management strategy as before Covid-19 started (Interview, Visit Iceland; Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation). The tourism industry is seen as one of the most important sectors for economic recovery from the Covid-19 pandemic (Sæþórsdóttir et al., 2020b).
- Recent success factors and tourism developments are seen as a confirmation, that Iceland has been on the right path during the last years. While the tourism vision defined for 2030 is still valid, further development of the tourism strategy was put on hold.
- Projects, including the continued **improvement of tourism and transport infrastructure**, and the exploration of destination management strategies have continued (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation). Approx. ISK 1.7 billion (ca. EUR 11.5) were invested in infrastructure at national parks, protected areas and large public tourist sites (Eskins, 2021; McClanahan, 2020). Besides, ISK 700 million (ca. EUR 4.7) were transferred to the Technological Development Fund to boost innovation.
- In order to support tourism and maintain the awareness about Iceland, **marketing campaigns targeted at international visitors** have been initiated by *Visit Iceland, e*.g., the *Let it out Loud* campaign.
- In November 2020, announcement of a **new visa** allowing remotely working visitors to stay for a longer time period (Eskins, 2021).
- **Promotion of domestic tourism** through the campaign *Island — komdu med!* ("Iceland — come join us!") and digital gift voucher worth ISK 5000 (approx. EUR 34) for services from domestic tourism companies (Gunnarsdóttir & Reynisdóttir, 2021).
- Temporary **abolishment of the overnight tax** (Sæþórsdóttir et al., 2020b).
- The Icelandic Environmental Agency (n.d., p. 5) report a **strong increase of interest in outdoor activities** which has led to pressure in natural areas located close to urban areas, particularly in the capital area. On the contrary, in traditionally popular sites further away from the capital, partly less pressure and thus improved conditions were reported.

Additional comments
Are there other important aspects regarding the pandemic?

(Interview, Visit Iceland)

- The Covid-19 situation in Iceland was special since, as a sparsely-populated island with most of its inhabitants living in the South-West region, Iceland was considered particularly vulnerable for the spread of the Covid-19 virus. During the crisis, the Icelandic government has had to handle a very narrow road between the safety regulations applied within Iceland and for the entrance to Iceland.

- On the other side, due to its small population size, Icelandic residents have a strong sense of community and the sharing of important information is very effective. There has been an effective reporting on the health situation and a strong cohesion and sense of community between the population.

(Interview, Icelandic Tourism Cluster)

- Even though most of the Icelandic tourism businesses have survived the Covid-19 crisis until now, many of them have got into debt. This is why some effects of the Covid-19 on the local businesses might only become visible during the next few years.
- Besides, there is currently a lack of employees, due a decreased interest in working in the tourism sector. This results in managerial challenges for tourism businesses, which wish to meet the currently increasing demand, but lack of the required personnel capacities.

8. Outlook & Additional Comments

Expected future changes

What are the expected changes in the future tourism development? What are the plans for post-covid tourism?

(Interview, Department of Tourism and Innovation, Ministry of Industries and Innovation)

- In the past months, flight have started to operate again and a strong recovery can be observed, which represents a positive outlook.
- Iceland is an attractive destination post-Covid since it is easy to discover by car, offers a wide variety of nature-based experiences, a safe and clean environment and has recently further improved its tourism infrastructure. Tt is thus considered to be in a very strong position.

(Interview, Head of *Visit Iceland)*

- The current outlook is perceived as pretty good. There is lot of optimism in the Icelandic tourism sector, more than in comparison to the winter of 2020/2021. Because of the governmental support measures taken in winter many touristic companies survived the crisis. During the past months, demand started to increase again and companies were ready to offer their service immediately. Besides, the outlook in terms of bookings looks very positively for the next months.
- It is important to continue acting agile and quickly, focusing on the strategy and objectives set in pre Covid-19 times.

(Interview, Icelandic Tourism Cluster)

- Currently, tourists seem to be more purpose driven, better informed and interested in Icelandic culture. Besides, they show an interest in making a positive contribution to the destination during their journey. This development would be very desirable for the future.

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

(Interview, Department of Tourism and Innovation, Ministry of Industries and Innovation)

- The pandemic still represents a major uncertainty since its further development is unclear and other pandemics might exist in the future.
- Climate change also presents uncertainties. There are already impacts of climate change such as the melting of the glaciers. Furthermore, it is difficult to predict how the climate crisis will potentially change travel demand and behaviour. On the one side, Iceland might be in a strong position as people could prefer to travel to cooler destinations such as Iceland. On the other hand, as an island Iceland is highly dependent on air travel. Consequently, possible effects on air travel due to climate change mitigation may represent a major challenge.

- Parallelly, the risk of natural disasters exists, e.g. volcanic eruptions.
- The national elections in September may introduce some changes, even though it can be expected that the current focus on sustainable tourism development will be further pursued, possibly with a stronger focus on the domestic market.

(Interview, Visit Iceland*)*

- The most relevant current uncertainty represents the further development of the Covid-19 crisis and the health regulations. It is currently difficult to rely on data. It remains unclear, how the pandemic will develop in the future and which indicators will be used in order to monitor the health situation and travel restrictions.
- Besides, there are different forecasts regarding travel behaviour in post-Covid times. Some studies predict a greater demand for less crowded and nature-based places which would represent an opportunity for the Icelandic tourism sector.

(Interview, Icelandic Tourism Cluster)

- The Icelandic tourism industry is very dependent on the development of the national currency. Furthermore, Iceland is not an inexpensive travel destination for international visitors, which is why the quality of its tourism offers must be high throughout the entire value chain.
- Iceland is only accessible by flight or ferry. Thus, offers to compensate the emissions emitted during the journey should be developed in order to stay competitive and interesting for environmentally conscious travellers.

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

(Interview, Visit Iceland & Interview, Interview, Department of Tourism and Innovation, Ministry of Industries and Innovation)*)*

- It is important to stay agile on the travel restrictions (Interview, Visit Iceland).
- Furthermore, the collaboration with all involved stakeholders is vital for a successful implementation of the tourism strategy and a sustainable development of the Icelandic tourism sector.
- The before mentioned coordination and the usage of data are important in order to develop tourism sustainably and successfully (Interview, Department of Tourism and Innovation, Icelandic Ministry of Industries and Innovation).

(Interview, Icelandic Tourism Cluster)

- For a future sustainable tourism development a strong cooperation between all stakeholder is vital. Besides, also residents should be actively involved in tourism development. In this context, the importance and benefits of tourism should be further stressed to them.

Additional comments

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Representative of *Icelandic Tourism Cluster*

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City of Palma, Majorca, Balearic Islands

1. General Information about the destination

Case study item	Information	Data source
Destination name	Palma	
Destination type	Coastal	
NUTS 3 Level	ES532 – Mallorca	
Country	Spain	
Region	Majorca, Balearic Islands	
Tourist area size (km2)	Municipality of Palma: approx. 208.6 km² Historical centre: 1.24 km²	(IBESTAT, n.d.-c) (Morell, 2009, p. 350)
Population		
inhabitants in destination	Island of Majorca: 912 171 (2020). Municipality of Palma: 422 587	(IBESTAT, n.d.-b)
inhabitants in tourist centre/core area	Historical centre of the city: 24 194	(IBESTAT, n.d.-b)
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	Total GDP contribution in Spain: 14.1% (2019)/5.9% (2020) Number of jobs in travel and tourism: 2 855 700 and 14.4% (2019)/2 547 900 and 13.3% (2020)	**https://wttc.org/Research/Economic-Impact**
Importance of tourism in destination (GDP, employees)	44.8% of GDP and 32% of jobs in the Balearic Islands (numbers of 2014). In a report published by *Brandtour* in 2019, the estimated economic importance of tourism in the Balearic Islands is similar: 48% of Balearic GDP (directly or indirectly) and 31.5% of employment. The number of employees in the municipality of Palma working directly in the tourism sector changes considerably during the year (e.g., in the 2nd quarter 2019: 64 902; 4th quarter 2019: 38 925)	(Brandtour, 2019; Exceltur, 2015, p. 5; IBESTAT, n.d.-d)
tourist arrivals in destination (2015-2019)	Close to 6.5 million tourists visit annually the city of Palma.	(Interview, Fundació Turisme Palma 365)

	Number of tourists staying in hotels and apartments in the municipality of Palma (excluding day visitors and stays in non-registered accommodation offers)*: 2019: 2 401 211 2018: 2 451 873 2017: 2 056 693 2016: 1 891 194 2015: 1 646 625 Number of tourists staying in hotels in the city centre (excluding overnight stays in other accommodation offers, day visitors and cruise ship passengers)*: 2019: 907 083 2018: 827 667 2017: 770 316 2016: 704 878 2015: 628 479	(IBESTAT, n.d.-a) **Number of tourist arrivals and overnight stays in tourist apartments in the city of Palma are not available*.
overnight stays in destination (2015-2019)	Overnight stays in apartments and hotels in municipality of Palma: 2019: 9 136 425 2018: 9 562 012 2017: 9 049 020 2016: 8 907 235 2015: 8 216 350 Overnight stays in hotels in city of Palma*: 2019: 2 642 229 2018: 2 522 886 2017: 2 417 730 2016: 2 243 035 2015: 2 061 291	(IBESTAT, n.d.-f)
day visitors, park entrances, cruise arrivals etc.	Cruise passenger arrivals at the port of Palma: 2019: 2 217 496 2018: 2 051 782 2017: 1 660 723	(AETIB, Conselleria d’Innovació, Recerca i Turisme. Govern de les Illes Balears, 2020, p. 23)

	2016: 1 626 620 2015: 1 703 219	
% tourism growth over the last 10 years	Growth of cruise ship tourism in Palma of 182% (from 785 509 in 2009 to passengers to 2 217 496 in 2019) Growth of number of persons staying in a hotel or apartment in the municipality of Palma* of 51.67% (from 1 583 212 in 2009 to 2 401 211 in 2019) Growth of arrivals of tourists staying in hotels in the city centre of 60.7% (from 564 420 in 2009 to 907 083 in 2019) Growth of hotel and apartment overnight stays in the municipality of Palma: 21.4% (from 7 524 943 to 9 136 425) Growth of hotel overnight stays in the city centre of 65.56% (from 1 595 930 to in 2009 to 2 642 229 in 2019)	(AETIB, Conselleria d'Innovació, Recerca i Turisme. Govern de les Illes Balears, 2020, p. 23; Agència de Turisme de les Illes Balears, Conselleria d'Innovació, Recerca i Turisme. Govern de les Illes Balears, 2016, p. 21; IBESTAT, n.d.-a, n.d.-f)

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available

Bed nights*/residents of municipality of Palma in 2019: 21.96
Number of tourists (including cruise ship passengers)/resident in municipality of Palma in 2019: 11.1

*The number of bed nights does not include overnight stays in non-regulated accommodation, cruise ship passengers and other day visitors. For a more exact number, the number of cruise ship passengers might be included.
However, these numbers account for the entire municipality of Palma (due to a lack of numbers of overnight stays in apartments and tourist arrivals in the city centre of Palma). Since most the tourists are concentrated in the historical centre and that the city is also popular among day tourists, it can be expected that tourism density and intensity are even higher.

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)
Bed nights*/km² of municipality of Palma in 2019: 43 799
Number of tourists (including cruise ship passengers)/km² in in municipality of Palma in 2019: 22 141

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

Since the beginning of the sea and sun mass tourism in Majorca in the 1960s, the island's capital has become a complementary urban tourist attraction. Such as tourism in Majorca in general, tourism demand in Palma is dependent on the summer season, leading to intense capacity problems. Due to the popularity of the city among cruise ship passengers, day visitors staying in other areas of the island, and overnight tourists, particularly the small area of the historical centre and its main attractions have increasingly experienced high tourism pressure. This has in the past decade resulted in increasing negative impacts for the city infrastructure, the living environment and the visitor experience.

Additional general remarks

Palma represents one of the most popular urban and vacation destinations in Spain. It takes fourth place of the Spanish urban und vacation destinations with most hotel beds. It takes seventh place for the most hotel overnight stays in 2019 (Exceltur, 2021a, pp. 10–11).

2. Tourism development

Tourism Development

How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic?

Short description of recent development

Before the pandemic: In the past 10 years until the pandemic outbreak, a strong increase of hotel and apartment stays occurred (+51.67%) and particularly in cruise ship passenger arrivals (+182.3%). In 2019, the city experienced its strongest year in terms of tourism revenue (Interview, Fundació Turisme Palma 365). At the same time, negative tourism impacts have become increasingly apparent, affecting the visitor experience, the brand recognition of the city and the social environment of the city.

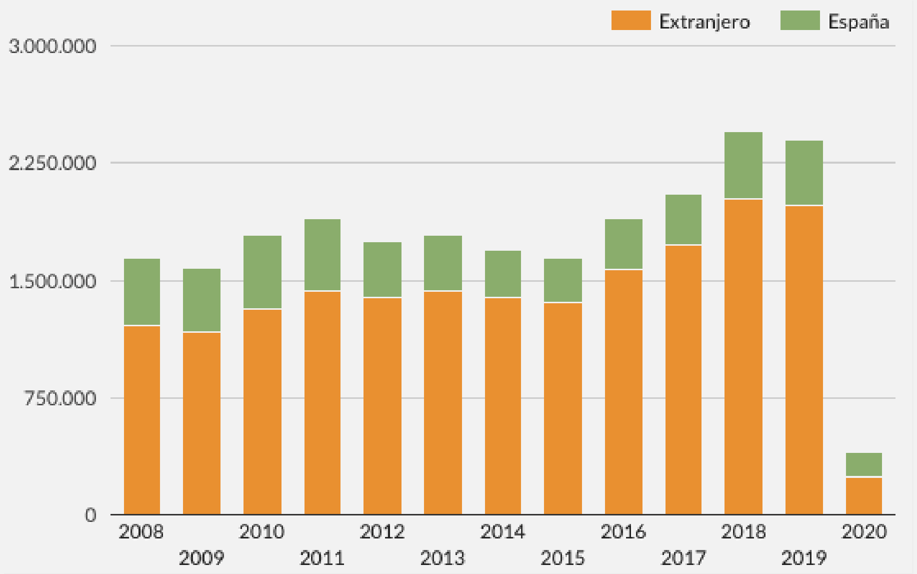


Figure 8: Evolution of number of tourists staying in hotels and apartments in the municipality of Palma (orange: foreign tourists; green: domestic tourists) (Source: IBESTAT (n.d.-a))

After the pandemic:

With the start of the outbreak of the Covid-19 Palma experienced a drastic decline of international and national tourist arrivals in 2020. The number of tourist staying in hotels and apartments in the municipality of Palma decreased by -83.46% to 397 076 in 2020 (IBESTAT, n.d.-a). According to *Exceltur* (2021b, pp. 15–16) Palma was the Spanish urban destination which experienced the highest decrease of the number of open hotel beds (-65.7%) and decrease of hotel revenue (-87.6%). At the same time, the share of domestic tourists staying in hotels in the centre of Palma increased, accounting for almost 48.5% in 2020 (in contrast to 27% in 2019) (IBESTAT, n.d.-f).

Tourism demand in 2021 is described by *Fundació Turisme Palma 365,* the destination management organization of Palma, as "not homogeneous" (Interview, Fundació Turisme Palma 365). While some areas of Majorca have had difficulties to recover, Palma was one of the Majorcan destinations which recovered the fastest since its reopening in May 2021. The city experienced one of its strongest peak season starts regarding tourism revenue and recorded high hotel occupancies. At the same time, the demand of upscale tourism has considerably increased.

Visitor segments (Share and/or numbers)

What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.

Palma is visited by day visitors staying in other parts of Majorca, cruise tourists as well as tourists who stay overnight. Each type of visitor accounts for approximately one third of the visitor arrivals (Interview, Fundació Turisme Palma 365).

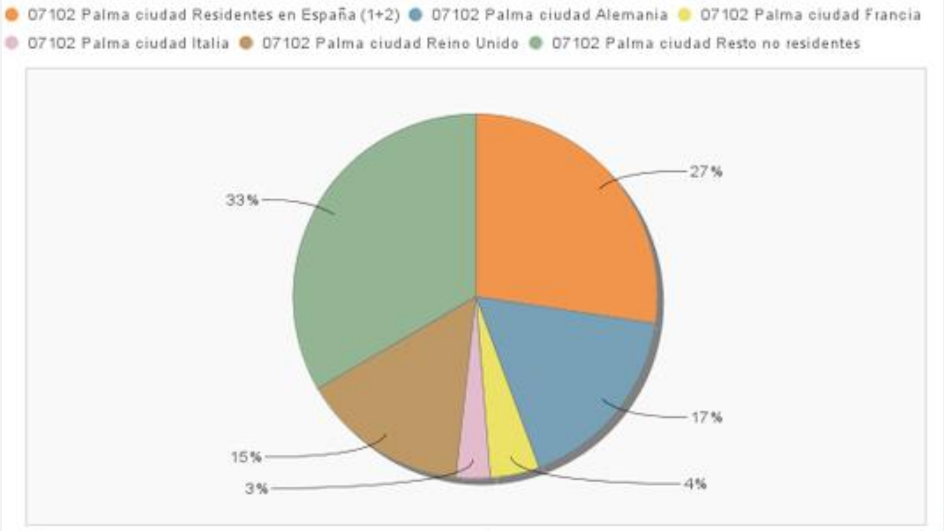


Figure 9: Percentage of origin of visitors staying in hotels in the city of Palma in 2019 (Source: IBESTAT (n.d.-f based on data of the Instituto Nacional de Estadística)

As presented in Figure 9, in 2019 27% of the tourists staying in hotels in the centre of Palma were Spanish, 17% Germans, 15% from the United Kingdom, 4% from France and 3% from Italy. 33% of the tourists arrived from other countries. Thus, 63% of the tourists staying in hotels in Palma were international tourists and 27% domestic tourists (IBESTAT, n.d.-f).

The average length of stay of the visitors staying in a hotel in the centre of Palma has slightly decreased during the past years from 3.28 (2015) to a 2.91 days (2019) (IBESTAT, n.d.-f).

In contrast to the rest of the island, the tourists who book a package tour from tour operators for their stay in Palma is below 5% (Interview, Fundació Turisme Palma 365). Instead, most visitors buy the tourism services separately and directly from the service suppliers.

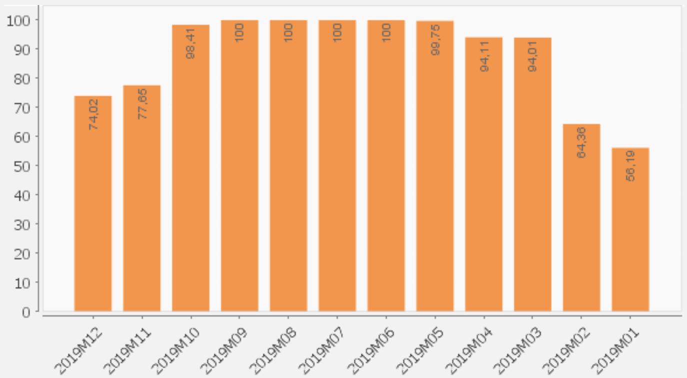
The hotel offer in the historic centre of the city is increasingly targeted at high-end tourism segments (Interview, Fundació Turisme Palma 365). In the municipality of Palma 198 hotels are located, 130 of them are establishments of four hotel stars or superior (IBESTAT, n.d.-e).

Temporal distribution/seasonality

When are the temporal peaks (if any)? How is the seasonal distribution of visitors?

Explanation and numbers (if available)

Tourism demand in Palma is dependent on the summer season, even though the seasonality is lower compared to other tourist areas of Majorca. As Figure 10 and Figure 11 show, the percentage of opened hotels in the city of Palma, as well as the occupation of the existing hotel beds, changed considerably during 2019. While in January 2019 56% of the hotels in the city of Palma were available, between June and September 2019 every hotel was open. When considering the entire hotel offer in the city of Palma, in January 23% of the existing hotel beds were occupied, while in August the occupation rate was 85%.



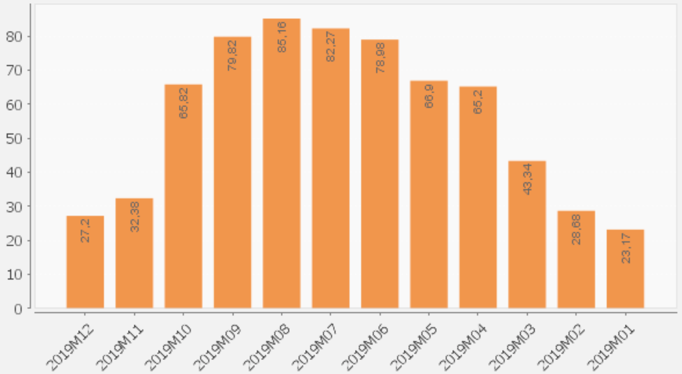


Figure 10: Percentage of opened hotels in the city of Palma during 2019 (IBESTAT, n.d.-f based on data of the Instituto Nacional de Estadística)
Figure 11: Occupation rate of the existing hotel beds in the city of Palma during 2019 (IBESTAT, n.d.-f based on data of the Instituto Nacional de Estadística)

Spatial distribution

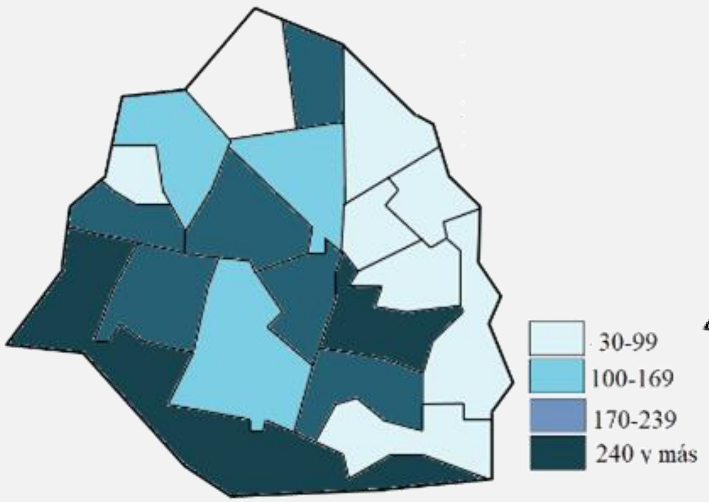
What are the tourism hotspots? How is the spatial distribution of visitors?

Explanation and numbers (if available)

Most of the tourist attractions of the city of Palma, such as its cultural and commercial offer, are located within the historical quarter in its centre. Particularly the Cathedral *La Seu*, located closely to the port of Palma, the royal palace *Palau de l'Almudaina*, the Gothic building *Llotja de Palma* and popular places and avenues such as the *Plaça Major* and *Passeig del Born* are frequented by visitors.

Concerning the distribution of accommodation offers, most of the hotel beds are offered in the southeast of the historical centre (González-Pérez, 2020) (see Figure 12). The same applies for the (now illegal) Airbnb offers (see

Figure 13).



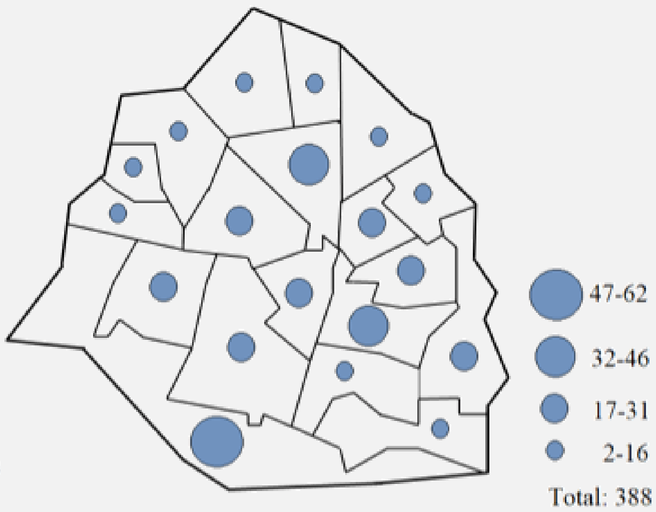


Figure 12: Number of hotel beds in the historical centre of Palma in March 2020 (source: González-Pérez (20202020 based on data of the Government of the Balearic Island)
Figure 13: Number of Airbnb offerings in the historical centre of Palma in March 2020 (Source: González-Pérez (2020 based on data of Airbnb inside http://insideairbnb.com/mallorca/))

Additional tourism figures

Are there any other important numbers/aspects to understand the tourism situation in the destination?

Next to the city of Palma, a major part of the Playa de Palma is located in the municipality of Palma. The tourist area is approx. 5km long, and has been particularly popular among party tourists. At beginnings of the 21st century, the tourism offer of the Playa de Palma was characterized by a declining quality and competitiveness (Ley 8/2010, de 27 de Julio, de Medidas Para La Revalorización Integral de La Playa de Palma, 2010). In order to renovate the area, a urban consortium was established in 2005 (Consorci Platja de Palma, n.d.), followed by the approval of the law for the revalorisation of the area in 2010. In 2012, a consequential law defined several measures in order to restructure the tourism offer, focusing on sustainability, quality and a respectful living environment. During the past years before the pandemic, first results of the new tourism strategy could be observed. However, in 2021, the tourism situation was again characterized by a low quality, comparable to the beginnings of the last decade (Interview, Fundació Turisme Palma 365)

According to the Council of Majorca the density of hotel beds (measures in number of hotel beds per hectare) is in the metropolitan area of Palma considerably higher than the average hotel bed density of the island of Majorca (with 0,98 beds per hectare in comparison to of 0,34) (Consell de Mallorca et al., 2020, p. 86). Most vacation rental offers are located in the historic centre of the city, with leads to densities superior to 1.000 beds/km².

3. Tourism management in the destination

Organisation of tourism & stakeholders

How is tourism in the destination organised? Which authorities are responsible for tourism?
Who are the central stakeholders involved in tourism management and development? Is there a monopolisation/dominance of certain businesses? What are the responsibilities of the different stakeholders?

As described in the case study of Majorca, there are several levels involved in tourism management and marketing of the island and its capital. This case study focuses on the lowest level, the municipality/city level of Palma.

Since the great majority of the visitors buy tourism services directly (Interview, Fundació Turisme Palma 365) tour operators have less influence on the tourism development in Palma. Instead, there are several small and medium-sized enterprises (SME) in Palma.

A range of civic organizations addressing the problematics of tourism pressure have been founded in Palma during the past decade. Among them are *Palma XXI* and *Ciutat per qui l'habita* ("City for the person who lives in it").

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

- The main authorities responsible for tourism planning and governance in Majorca are the *Agència d'Estratègia Turística de les Illes Balears* (AETIB)/Government of the Balearic islands (GOIB), *Fundació Mallorca Turisme*/Council of Majorca as well as the municipalities and town councils of Majorca (*see case study of Majorca*).
- The **town council of Palma** closely cooperates with the Council of Majorca and has a special decision-making power in terms of tourism planning.
- Next to the town council of Palma, the ***Fundació Turisme Palma 365*** plays a central role. The non-profit destination management organization (DMO) of Palma is public-private, consisting to 51% of the two public organizations, the town council of Palma and the Balearic Port Authority. The remaining 49% consist of private tourism companies, including several hotel groups and tour operators.

- Next to developing and promoting innovative tourism products and informing about the tourist offers of the city, it is in charge of the official tourist website of Palma[8]. Some of the central activities of the DMO are to promote "activities geared towards increasing the city's touristic and commercial demand", ensuring "that the cultural, architectural and natural heritage, as well as the identity and traditions of the city of Palma de Mallorca, are key elements in diversifying the touristic offering" and to attracts tourists all year round. Besides, it is responsible of presenting "requirements and suggestions deemed to be of interest in contributing towards the improvement of the destination's tourism plan, to competent bodies and authorities" and thus also acts as a consulting body of the town council in terms of tourism and urban planning (Interview, Fundació Turisme Palma 365).

Additional comments:
Are there any other important facts to understand the tourism management in the destination?

Sine the development of the mass tourism concept of the island of Majorca, the capital has become a popular urban tourism destination, complementary to the beach and sun tourism dominating on the island. The city has a special role since it is the capital of the autonomous region of the Balearic Islands, their economic center and place of living of more than half of the population of Majorca.

4. Description of unbalanced tourism development

Root causes/drivers

What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)

Root causes:

- The root causes of the development of Majorca as an international sea and sun mass tourism are outlined in the case study of Majorca.
- Since the establishment of Mallorca as a popular mass tourism destination, Palma has become a **complementary tourist attraction** (Yrigoy, 2018).
- The entry of Spain to the European Union (1986) and the Treaty on European Union (1993) facilitated together with the third tourism boom **foreign real estate investments** in the centre of Palma (González-Pérez, 2020). In addition, several urban rehabilitation plans were implemented, resulting in the **redevelopment and transformation of several neighbourhoods** (Vives-Miró, 2011).
- As a consequence, **housing prices** (Vives-Miró, 2011) as well as the amount of foreign (second) residents of Northern and Central European countries increased (González-Pérez, 2020), while residential rentals notably decreased from the beginnings of the 21st century on (Yrigoy, 2018).
- Besides, **the number of hotels and vacation apartments** rose (González-Pérez, 2020) and the **city infrastructure**, including the port and airport, was considerably enlarged for tourist usage (Vives-Miró, 2011).

New trends & destination factors:

- The increasing popularity of **urban tourism** and the rise of **peer-to-peer accommodation platforms**, particularly of *Airbnb*, has had severe consequences for the city and its residents and intensified previous developments. It allowed the increasing number of tourists to stay not only in regulated accommodations, but also in residential neighbourhoods and non-regulated accommodations. This made tourist numbers difficult to monitor and also led to a further dispersal of tourists to other parts of the city. Besides, the increased usage of apartments for the more profitable short-time touristic rental has contributed to an increase of rental costs, decrease of available rental dwellings and consequently, the exodus of local residents from the historical city centre and other popular parts of Palma (Yrigoy, 2018). According to the Council of Mallorca and the GOIB,

[8] The official tourism promotion website of Palma is www.visitpalma.com .

69.8% of the city's tourists beds were touristic housing rentals and only 10% of them were official registered (Consell de Mallorca et al., 2020, p. 85).

- In addition, the destination Palma became more accessible and affordable due to the rise and strong market positioning of **low-cost airlines**.
- Besides, the city has recently experienced an additional tourism pressure due to the unregulated arrival of day tourist on **cruise ships**. As a response to the rapid increase, several projects were initiated by the Port Authority of the Balearic Islands, among others the expansion of the Esplanade of the Poniente Norte quay in Palma for 21 million euros (Mallorca Magazin, 2020; Ports de Balear, 2021).

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders?

Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

As the most important source of revenue, the tourism sector has several positive benefits for the capital, especially regarding its economy and infrastructure. However, the strong increase of visitor numbers and the temporally concentrated arrival of cruise ship passengers and day visitors, exert high pressure, especially on the historical city centre. As outlined in the following sections, as a place of living of most of the Majorcan population, particularly the socio-cultural and socio-economic impacts have become visible in the economic centre of Majorca during the past decades.

Impacts on infrastructure and environment:

- One of the central challenges is the **congestion and overcrowding** during the peak times, particularly in the historical city centre and at popular sites such as the cathedral of Palma.
- In addition, **traffic congestion and parking problems** have become an issue. Next to an increased amount of rental cars during the summer months, cruise ship passengers and day visitors, e.g., from the Playa de Palma, arrive in busses in the centre of Palma (Interview, Secretary of Plama XXI).
- The concentrated tourism demand exerts **pressure on the city's infrastructure** and leads to challenges in managing the high amount of solid waste, waste water and the high demand of resources such as water and electricity as well as additional costs. For example, the obsolete sewage plants of the city of Palma are insufficient to clear the high amount of waste water generated during the summer. As a consequence, waste water has in the past years repeatedly entered into sea water, resulting in the closure of the beaches of Palma (Deutsche Welle, 2018). Also the concentrated demand of water has already several decades ago led to an aquifer overexploitation and a lowering of the ground water table in Palma (Garcia & Servera, 2003).
- Tourism further intensifies **noise pollution**. Particularly at night, the nautical tourism, terrasses and bars lead to a high noise intensity in Palma (Interview, Secretary of Plama XXI).
- The concentrated tourism demand, and particularly cruise ship tourism, contributes to an increase of **air pollution**. According to a study published by the non-profit organization *Transport & Environment* (2019) the port of Palma was in 2017 the second most "ship-polluted" European port.

Impacts on local economy:

- The tourism sector is a central source of jobs and revenue. However, tourism seasonality results in a high percentage of temporary working contracts, which has severe impacts for the islands' **labour market and living conditions** (Brandtour, 2019). At the same time, the island and Palma are highly **dependent on international tourism demand**. Due to the lack of tourists during the Covid-19, poverty has drastically increased in Palma during the pandemic (Deutsche Welle, 2021).

- According to González-Pérez (2020) in the past ten years the average **sale price of real estate** in the historic centre has increased by 40.22% and the average rental price by 29.13% (see Figure 14). At the same time, the **cost of living** and for everyday goods are increasing and vary significantly in the centre of Palma (Jiménez-Bravo Morales, 2020, p. 489).
- Shops and gastronomic services are increasingly **targeted at tourists** instead of satisfying everyday needs of residents (Blázquez-Salom et al., 2019; Interview, Representative of Palma XXI).

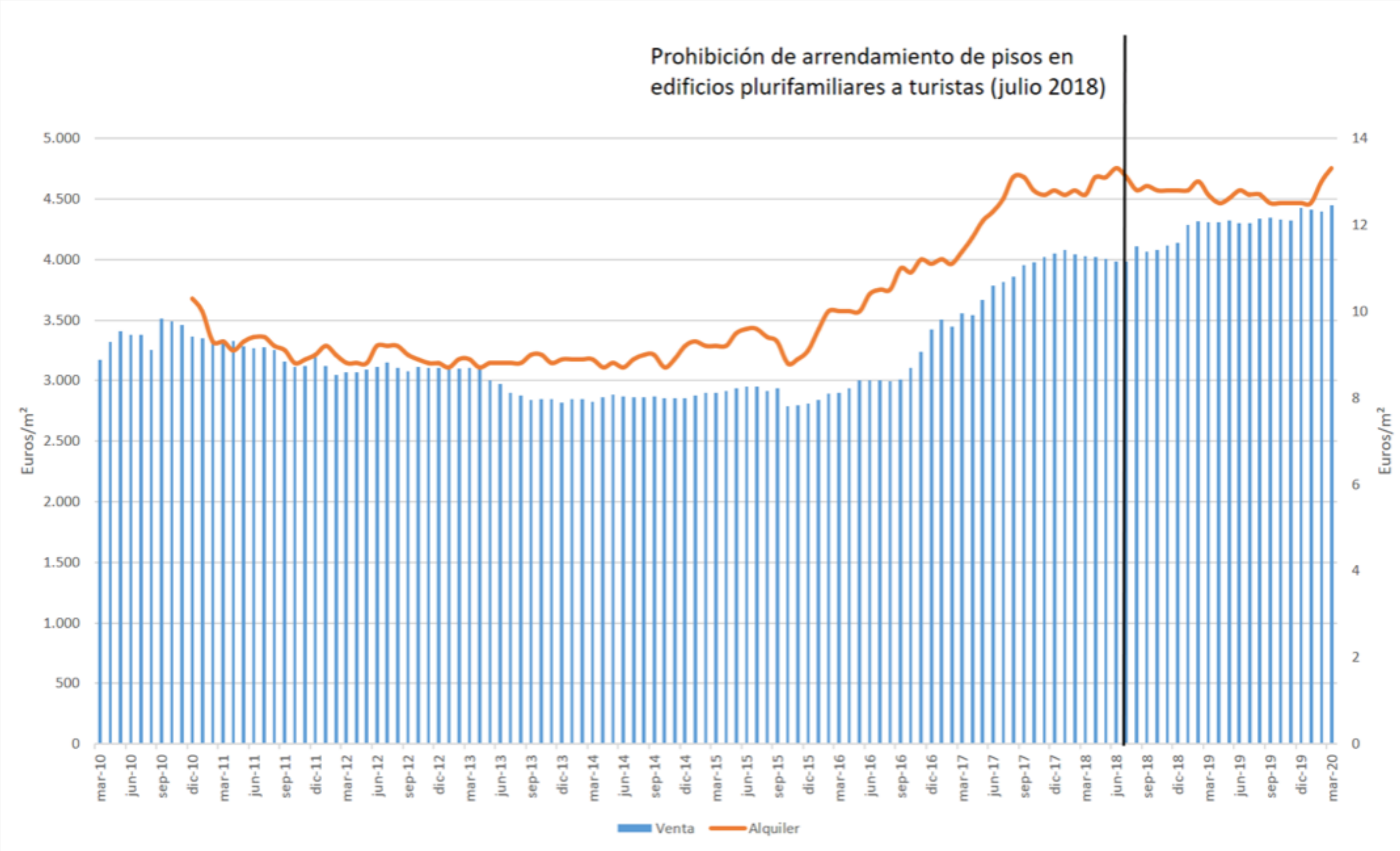


Figure 14: Development of sale and rental prices in the historic centre of Palma between March 2010 and March 2020 (blue: sale; orange: rental) (source: González-Pérez (2020))

Impacts on social environment

- According to a study published by *Exceltur* (2018, p. 17), Palma is the **sixth Spanish city with the highest tourism pressure** in relation to the local population and urban surface.
- Local scholars stress the increasing **commodification and privatization of public spaces** for tourist usage (Blázquez-Salom et al., 2019), for example for the installation of terraces (Jiménez-Bravo Morales, 2020), which makes them less accessible and affordable for local residents.

- Due to the increased cost of living and housing, residents increasingly cannot afford living in the districts popular among tourists and consequently have to **move to the periphery areas or the islands' inland**.
- Besides, **neighbourhood structures in the city centre have changed and lose their uniqueness** due to their revitalization and foreign investments (Morell, 2009). The changing commercial network and social structures in the centre of Palma in turn contribute to **a loss of identity and sense of plac**e among the local residents (Blázquez-Salom et al., 2019). As a consequence, residents frequent different places which leads to a **change of traditions and the local way of life** (Interview, Secretary of Plama XXI).
- As a result of these impacts, **gentrification processes** can be observed in the centre of Palma (Blázquez-Salom et al., 2019) and civic organizations fear that Palma is losing "its historical centre as a town" (Interview, Secretary of Plama XXI).
- Particularly in the city centre **social discontent** related with tourism is increasingly pronounced by local population, which has also led to the foundation of **civil organizations** opposed to unbalanced tourism growth and its impacts. An example is the organization *La Ciutat per qui l'habita*.

Impacts on visitor experience:

- Day visitors and tourists also experience most of the physical-infrastructural impacts such as **congested roads, main streets and sights**. Besides, they increasingly encounter the same commercial infrastructure as in other destinations in Spain, Europe and worldwide. As a consequence, the special character of the city disappears and **the tourist experience becomes less unique**.

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

The presented impacts affect primary local residents, temporarily, but partly also constantly.

Local business are particularly affected by the socio-economic impacts, depending on the main target group their business is orientated on (residents, day visitors, tourists, foreign residents etc.). The high dependency on international tourism demand leads to risks and a low resilience of local businesses, particularly during times of crisis.

Also tourists and day visitors and tourists have increasingly experienced the physical-infrastructural, environmental, socio-economic and socio-cultural impacts (Interview, Fundació Turisme Palma 365). Particularly the crowding in the city centre in front of popular sites such as the cathedral influence the visitor experience.

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

The main capacity challenges are related with the high tourism intensity during the summer months, their concentration in the small historical centre as well as the (previously) unregulated growth of the ports, airport and foreign real estate investments.

Additional comments on the overtourism situation

Are there any other important aspects to understand the unbalanced tourism situation in the destination?

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism
What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved? What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?
Plan de Intervención en Ámbitos Turísticos de Mallorca (Plan of Intervention in Tourist Areas of Majorca, PIAT): Due to its special territorial condition as a place of living of half of the Majorcan population and economic centre of the Balearic islands, the town council of Palma has had a greater decision-making power regarding the interpretation of the PIAT. Palma is considered as a special territorial tourism system in the plan, and thus, individual regulations apply for the city: Except of 5-star city hotels (which must not be situated in apartment buildings), new tourist accommodation establishments are not further permitted (Interview, Fundació Turisme Palma 365). Also touristic rental in apartments blocks, and consequently, the rental of apartments via the peer-to-peer platform *Airbnb*, is not allowed. Besides, a maximum touristic density for the city of Palma of 8 beds per hectare was defined (Consell de Mallorca et al., 2020).
Limitation of cruise tourism: Before the start of the Covid-19 pandemic, it was decided to establish a maximum number of cruise ships per day (Interview, Fundació Turisme Palma 365). However, due to the Covid-19 crisis this measure was temporarily put into halt and it is foreseen to continue with its implementation as soon as tourism has recovered further. The docking of cruise ships has already been further regulated. While smaller cruise ships are allowed to dock at the port at the centre of Palma, cruise ships with bigger capacities, so called "mega-cruises", must embark close to Porto Pi, more outside of the city (Interview, Representative of Consell de Mallorca). Besides, the Council of Majorca and the GOIB have taken up contact with the main international cruise ship companies in order to distribute the arrival of the cruise ship arrivals more evenly throughout the week and to avoid the highly concentrated arrival of cruise passengers. In addition, the pilot project *Welcome Palma Web-App* was introduced in 2019.
Regulation of tourism flow and traffic: During the high season several shuttle buses transporting day tourists and cruise ship passengers used to constantly arrive at the city centre and stop in front of the cathedral (Interview, Fundació Turisme Palma 365). In order to regulate the arrival of these busses and disperse them further, bus stops at the city's main streets have been introduced in 2018. In addition, a digital visitor flow management tool, the *Welcome Palma* web-app, will be updated and modified, not only targeted on cruise ship passengers but all types of visitors (see below).
Alternative touristic routes: *Fundació Turisme Palma 365* has planned a new project using touristic signage. It is foreseen to split the city into 5 touristic routes which all start at public bus stops and do not overlap. The overall objective of the implementation of these routes is to incentivize the arrival by public transport, a greater dispersal of the visitors also outside of the city centre and thus, an activation of less touristic parts of Palma.
Plan *Impulso Palma, Destino Turístico Sostenible e Inteligente*: The plan, presented by the town council of Palma in close cooperation with the *Fundació Turisme Palma 365,* and approved in September 2020 by the Spanish government, has the objective to transform the tourism sector towards a sustainable, safe and smart city and tourism destination model (GOIB, 2020). It is developed coherently with the general tourism and marketing strategy

of Palma and based on the four pillars (1) connected tourism assets, (2) accessibility and sustainability, (3) competitive transformation and (4) digitalization. Among its specific objectives are the implementation of technological solutions to interact with tourists, the promotion of the municipality's competitive and digital transformation, the implementation of sustainability and quality certifications, the consolidation of the tourist destination management body and the implementation of safety and hygiene programs and protocols. The plan has a budget of 975,535 euros, of which the Spanish State Secretary of Tourism (Secretaría de Estado de Turismo, SETUR), the AETIB and the town council of Palma each contribute 33%. Central measures of the plan include the extension of the public WIFI beyond the central Plaza de España, the modification of the *Welcome Palma* web-app, an online market place, supporting particularly small tourism enterprises, as well as a system for big data collection, monitoring and analysis (Interview, Fundació Turisme Palma 365).

Local ordinances: The governing board of the town council of Palma has approved a range of ordinances in order to take action against uncivil behaviour of party tourists and improve the living atmosphere in the city. These include the *Ordenanza Reguladora del uso cívico de los espacios públicos* (ordinance regulating the civic use of public spaces) (2018), which prohibited the sale of alcohol between 24pm and 8am and the so called "balconing". The *Ordenanza para garantizar y formentar la convivencia cívica en la ciudad de Palma de Mallorca* (Ordinance to guarantee and promote civic coexistence in the city of Palma de Mallorca) is another regulation which entered already in 2014 into force and banned urinating in public places as well as the consumption of alcohol at public places if it causes nuisance to residents.

Innovative aspects

What are unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

The Plan *Impulso Palma* is focused on the development and implementation of digital solutions. One major measure is the modification of the ***Welcome Palma* web-app.** In order to manage the increasing and concentrated arrival of cruise ship passengers and other visitors of Palma more effectively, the *Port Authority of the Balearic Islands* (ATB) developed in collaboration with the *Fundació Turisme Palma 365* and the *University of the Balearic Islands* (UIB) the web-app *Welcome Palma*. The web-app was introduced in 2019 as a pilot project and consists currently of two main features, a heat map, indicating in real time the most congested city zones, and a chat-bot, recommending alternative sights and places to tourists, depending on the current congestion level. During its pilot phase, the web-app helped to reduce the visitor density at popular area around the cathedral of Palma by up to 11%. The new version of the web-app will be targeted at all visitors of Palma and available in Easter 2021 (Interview, Fundació Turisme Palma 365).

In addition, the *Fundació Turisme Palma 365* is developing since 2019 a **data driven and data based promotional strategy** (Interview, Fundació Turisme Palma 365). In this context, the plan *Impulso Plan* represents again a central tool, since the development and implementation of an infrastructure for big data collection, monitoring and analysis represents one of its main fields of action. The future focus of the *Fundació Turisme Palma 365* will be laid on data based decision-making and marketing.

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

The *Fundació Turisme Palma 365* periodically conducts market research including monitoring visitor satisfaction and behaviour. Besides, as a public-private organization, it has a dual reporting, to the town council of Palma, but also to the board of directors of the foundation, which consists of public and private organizations.

Challenges & success factors

What were the central challenges when planning, developing, and implementing the measures?
What were the central success factors when planning, developing, and implementing the measures?

(Interview, Fundació Turisme Palma 365)

- One of the main challenge experienced by *Fundació Turisme Palma 365* is that even though the organization is a semi-independent body its funds are public, and thus, public contracting processes have to be implemented. This partly results in limitations and challenges regarding creative processes and measures. At the same time, the new approaches and measures also result in challenges for the town council of Palma. The development and implementation of these new projects despite these challenges represents a major success and motivation factor.
- Besides, projects should be implemented in collaboration with the private sector. In the case of the *Fundació Turisme Palma 365* they are also part of the organization, which makes their involvement and their alignment under the same strategy obligatory. Furthermore, experience has shown that the comments and suggestions of the private stakeholders contribute to the improvement of the projects.
- Still, since there are a range of stakeholders involved in tourism planning and they partly pursue different objectives, finding appropriate solutions also involves challenges and requires negotiation skills.

Transferability to other destinations with similar characteristics

What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from?
What could be transferred to other destinations? What would you recommend a destination with similar challenges?

(Interview, Fundació Turisme Palma 365)

When implementing new measures for future tourism development it is important to think creatively and search for approaches "out of the box". In addition, in order to develop successful measures and use resources efficiently, an involvement and close cooperation with the private sector is essential.

Additional comments on solution approaches

Are there other important aspects to understand the strategies/measures chosen?

6. Monitoring/indicators

Monitoring of overtourism situation

Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?

The civic organization *Palma XXI* proposed establishing an observatory of tourism indicators with a pre-selection of central indicators, but so far a system of indicators has not been developed yet (Interview, Secretary of Plama XXI). Instead, market research is currently conducted periodically, involving data about tourist satisfaction, loyalty and length of stay (Interview, Fundació Turisme Palma 365).

The data obtained and monitored within the framework of the new plan *Impulso Palma* will be used in order to gain more experience regarding the usage of indicators and to establish a monitor system. In addition, the *Fundació Turisme Palma 365* will collaborate closely with the *Fundació Mallorca Turisme* within the framework of the Sustainable Tourism Observatory (see *case study of Majorca*), which will support the establishment of new indicators for the tourism development of the city in the future.

Indicators used

What are indicators used for the observation? Which indicators have proven successful?

Within the framework of its internal periodical market research the *Fundació Turisme Palma 365* collects data on the tourism situation in Palma, including tourist satisfaction, loyalty and length of stay.

Specific indicators

Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?

Data on **seasonality and tourism perception** is currently monitored for the entire Balearic Islands by the AETIB (*see case study of Majorca*). However, in the near future the Sustainable Tourism Observatory will provide further data specifically for the island of Mallorca. Besides, IBESTAT (n.d.-f) publishes information about the occupation rate of hotels in the city of Palma, which allows to draw further conclusions on tourism seasonality. Until now, the tourism perception of residents in Palma is not regularly monitored.

Private accommodation: There are no official statistics available on the number of private and non-regulated accommodation offers in Palma. However, the Council of Majorca estimates, that in 2016, before the introduction of the PIAT, 54% of the entire offer of tourist stays in dwellings are not-regulated and that approx. a third of them is located in Palma (Consell de Mallorca et al., 2020, p. 75). Some scholars, such as for example González-Pérez (2020), have analysed the development of the housing market by taking data of platforms such as *Idealista* and *Airbnb Inside* into account.

Number of day visitors: The number of cruise ships and cruise ship passengers is monitored and published by the Port Authority of the Balearic Islands *Ports de Balear* (2021). Besides, the *Fundació Turisme Palma 365* has conducted an internal report on tourism demand in Palma, which showed that almost 6.5 thousand people visit the centre of Palma including overnight tourists, day tourists and cruise ship passengers (Interview, Fundació Turisme Palma 365).

Challenges and success factors of the monitoring

What are the challenges and success factors of the monitoring system/the indicators?

(Interview, Fundació Turisme Palma 365)

The major reason why until now it has been difficult to implement indicators in Palma is the lack of financial means. However, the internal periodic reports have supported the monitoring of tourist demand and shown some interesting developments, such as the high repetition rate of visitors, a low comparison with other destinations and that friends and family are the most important source of information for visitors.

Additional comments on monitoring/indicators: Are there other important aspects regarding the monitoring?

7. Management of the pandemic

Changes due to the pandemic
What has changed due to the pandemic? How has the pandemic influenced the tourism development? **How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?**
(Interview, Fundació Turisme Palma 365) The last two years before the outbreak of the pandemic, it became drastically apparent that a quick reaction towards the increasing tourism pressure, affecting the local population as well as the touristic experience, was needed. The Covid-19 situation has further emphasized this need of action. Even though 2020 was challenging and the year of the lowest revenue in tourism in Palma, the recent developments in May, June and July are perceived as very positive and as a confirmation of the strategy of targeting less, but better paying visitors. Thus, it is foreseen to continue with the same marketing strategy as already before Covid-19 and increasingly promote upscale and luxury tourism segments. For the near future, it is planned to base tourism marketing and planning increasingly on big data analysis. For this development, the Plan *Impulso Palma* is considered a central tool. Furthermore, the promotion activities, including the channels and main target groups, will be reduced and more selective.
As a direct response to the Covid-19 situation, the app *Platges Segures* was initiated in summer 2020 by the *Fundació Turisme Palma 365,* the town council of Palma and the tourism business consortium Palma beach. The app indicates the current level of congestion of the Playa de Palma (outside of the Palma City Centre). The introduction of the app was met with very positive responses and the island council decided to modify the app and expand it to the entire island of Majorca (Interview, Fundació Turisme Palma 365).
Additional comments Are there other important aspects regarding the pandemic?

8. Outlook & Additional Comments

Expected future changes
What are the expected changes in the future tourism development? What are the plans for post-covid tourism?
(Interview, Consell de Mallorca & Representative for the Sustainable Tourism Observatory of Majorca, *Fundació Mallorca Turisme*) Concerning the overall tourism development of Majorca, Covid-19 is seen as a confirmation that the new strategy focusing on a sustainable tourism development and diversified tourism offer, has been the right decision. Thus, measures planned and implemented already before the Covid-19 will be continued and supplemented with further actions into this direction (see *case study of Majorca*).
(Interview, Fundació Turisme Palma 365) Due to the decreased tourism volume during 2020, nature and particularly the beaches at playa de Palma have recovered notably. This has also in Palma further emphasized to take more measures to preserve and protect the fragile environment. Consequently, future tourism development must move further into this direction. Not only, because it is central to preserve the limited resources of the city and the island, but also since there is an increasing demand

by the costumers. Particularly during meetings with companies and organizations from Northern European Countries the *Fundació Turisme Palma 365* perceives an increasing interest concerning the environmental protection measures taken in the destination. In addition, there is a demand for products which involve the engagement of the visitors in environmental activities.

(Interview, Secretary of Palma XXI)

According to the civic organization *Palma XXI* is vital to pursue a common tourism development strategy, reducing tourism and diversifying the economy of the island. In this context, indicators consisting of data indirectly and directly related to tourism are considered as a useful tool.

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

(Interview, Fundació Turisme Palma 365)

Corona seems to have led Northern European countries, which represent some of the main source countries of Palma, rediscover domestic tourism. Traditionally, the competitors of Palma were other destinations abroad such as Greece, Portugal, Southern Spain and Northern Africa. However, in the future Palma might compete increasingly also with the destinations in their main source markets.

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

(Interview, Fundació Turisme Palma 365)

- Concerning the promotion and further development of destinations similar to Palma, touristic strategies always need to be planned and implemented in the long-term by tourism professionals, independently of the current political debate. Instead, all political parties need to be aligned under the same touristic strategy, implemented by independent tourism professionals.
- The private sector must be involved constantly in the daily tourism business and the tourism strategy. In this manner, the public and private sector collaborate constantly and pursue the same objectives.

Additional comments

List of references and interviews

Interview partners and contributions from:

Representative of *Fundació Turisme Palma 365*

Representative of *Palma XXI*

Representative of Consell de Mallorca, Tourism Department & Representative of the Sustainable Tourism Observatory of Majorca, *Fundació Mallorca Turisme*

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Mallorca, Balearic Islands, Spain

1. General Information about the destination

Case study item	Information	Data source
Destination name	Mallorca	
Destination type	Island	
NUTS 3 Level	ES532 – Mallorca	
Country	Spain	
Region	Balearic Islands	
Tourist area size (km2)	Total island of Majorca: 3635.7 km² Next to its capital Palma, particularly the coast of Majorca is visited by tourists (total length of the coast: approx. 842 km). The following municipalities accounted in 2019 for the highest numbers of hotel beds in Majorca and formed part of the 20 urban and vacation tourism destinations in Spain with the highest number of hotel beds: • Calvià (145 km²; 56 720 hotel beds) • Palma (209 km²; 48 519 hotel beds) • Alcúdia (60 km²; 23 488 hotel beds) • Sant Llorenç des Cardassar (82 km²; 23 417 hotel beds) • Manacor (ca. 260 km²; 18 273 hotel beds) • Capdepera (55 km²; 17 847 hotel beds) Besides, the villages Sóller and Valdemossa (each municipality size approx. 43 km²) located in the mountainous range Serra de Tramuntana are popular tourist areas (size of each municipality approx. 43 km²).	(Exceltur, 2021a, pp. 10–11; IBESTAT, n.d.-e)
Population		
inhabitants in destination	912 171 inhabitants (2020)	(IBESTAT, n.d.-d)
inhabitants in tourist centre/core area	• Calvià (51 710) • Palma (422 587) • Alcúdia (20 819) • Sant Llorenç des Cardassar (8 742) • Manacor (44 527) • Capdepera (12 158)	(IBESTAT, n.d.-d)

	(Numbers of inhabitants of municipalities)	
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	Total GDP contribution in Spain: 14.1% (2019)/5.9% (2020) Number of jobs in travel and tourism: 2 855 700 and 14.4% (2019)/2 547 900 and 13.3% (2020)	**https://wttc.org/Research/Economic-Impact**
Importance of tourism in destination (GDP, employees)	44.8% of GDP and 32% of jobs in the Balearic Islands (numbers of 2014). In a report published by *Brandtour* in 2019, the estimated economic importance of tourism in the Balearic Islands is similar: 48% of Balearic GDP (directly or indirectly) and 31.5% of employment.	(Brandtour, 2019; Exceltur, 2015, p. 5)
tourist arrivals in destination (2015-2019)	2019: 11 874 835 2018: 11 947 382 2017: 11 636 313 2016: 10 920 237 2015: 9 980 480	(AETIB, Conselleria d'Innovació, Recerca i Turisme. Govern de les Illes Balears, 2018, p. 31, 2019, p. 31, 2020, p. 31; Agència de Turisme de les Illes Balears, Conselleria d'Innovació, Recerca i Turisme. Govern de les Illes Balears, 2016, p. 3, 2017, p. 3)*
overnight stays in destination (2015-2019)	International & national overnight stays in regulated accommodation offers: 2019: 50 825 632 2018: 52 066 735 2017: 52 428 937 2016: 51 756 450 2015: 48 358 004	(IBESTAT, n.d.-h)
day visitors, park entrances, cruise arrivals etc.	Arrival of in total 2 218 328 cruise passengers at the ports of Mallorca (Palma, Sóller, Alcúdia and Cala Ratjada) in 2019. Most of the cruise ships dock at the port of Palma.	(AETIB, Conselleria d'Innovació, Recerca i Turisme. Govern de les Illes Balears, 2020, p. 23)
% tourism growth over the last 10 years	Growth of tourist arrivals of 36.2% from 8 718 788 (2009) tourist arrivals to 11 874 835 (2019). Growth of regulated international and national overnight stays of 19.8% (from 42 417 320 in 2009 to 50 825 632 in 2019).	(AETIB, Conselleria d'Innovació, Recerca i Turisme. Govern de les Illes Balears, 2020, p. 31; Conselleria de Turisme. INESTUR – CITTIB, 2009, p. 13)

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available
bed nights*/residents in 2019: 56.7

*The number of bed nights only includes the overnight stays in hotels, touristic apartments and rural accommodation presented by IBESTAT (n.d.-h). Stays in non-regulated accommodation and cruise ship passengers are not included. For a more overall impression, the number of tourists per km^2 and number of tourists per inhabitant can be calculated:

Number of tourists (including tourist arrivals and cruise ship passengers)/resident in 2019: 15.7

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)

bed nights*/km^2 in 2019: 13 980

Number of tourists (including tourist arrivals and cruise ship passengers)/km^2 in 2019: 3 876

**Note: Numbers vary slightly, depending on the source (AETIB or IBESTAT)*

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

The tourism sector of Majorca is based on a sun and beach mass concept since the 1960s. In 2019, approx. 11.9 tourists arrived on the island on which less than 1 million inhabitants live. Tourists arrive temporally and mostly also spatially concentrated during the summer months on the coastal areas and in the capital Palma. As an island, natural resources are limited which makes the destination and its habitants particularly valuable for their overuse. Besides, the island's history of (mass) tourism development, and particularly the former lack of sustainable tourism planning and a prioritisation of a constant quantitative over qualitative tourism growth, have led to a range of challenges for the environment, local infrastructure and the islands' inhabitants. At the same time, since the tourism sector represents the most important source of revenue for the island, and only 13.5% are domestic tourists (2019), the island is highly dependent on the concentrated international tourism demand during the summer.

Additional general remarks

2. Tourism development

Tourism Development

How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic?

Short description of recent development

Before the pandemic: Strong and constant tourism increase (except 2019 with a slight decrease of tourist arrivals of 0,6%). Rapid increase of cruise ship passengers arrivals during the past years of 78% from 1 247 514 cruise ship passengers in 2013 to 2 218 318 in 2019 (AETIB, Conselleria d'Innovació, Recerca i Turisme. Govern de les Illes Balears, 2020, p. 23).

After the pandemic:

- Due to the Covid-19 pandemic the island experienced a drastic decline of tourist arrivals in 2020 of approx. 83% in comparison to 2019 (IBESTAT n.d.-b)). From the second half of March 2020 on no tourists were received due to the strict health regulations and a nationwide lock down.
- In mid-June 2021, a limited number of German visitors were allowed to travel to the island as a pilot project of the tourism reactivation plan of the Balearic Islands and end of June the island reopened for international tourists.
- At beginnings of August 2020 Majorca was again declared as a Corona virus risk zone by the German *Robert Koch Institute.*

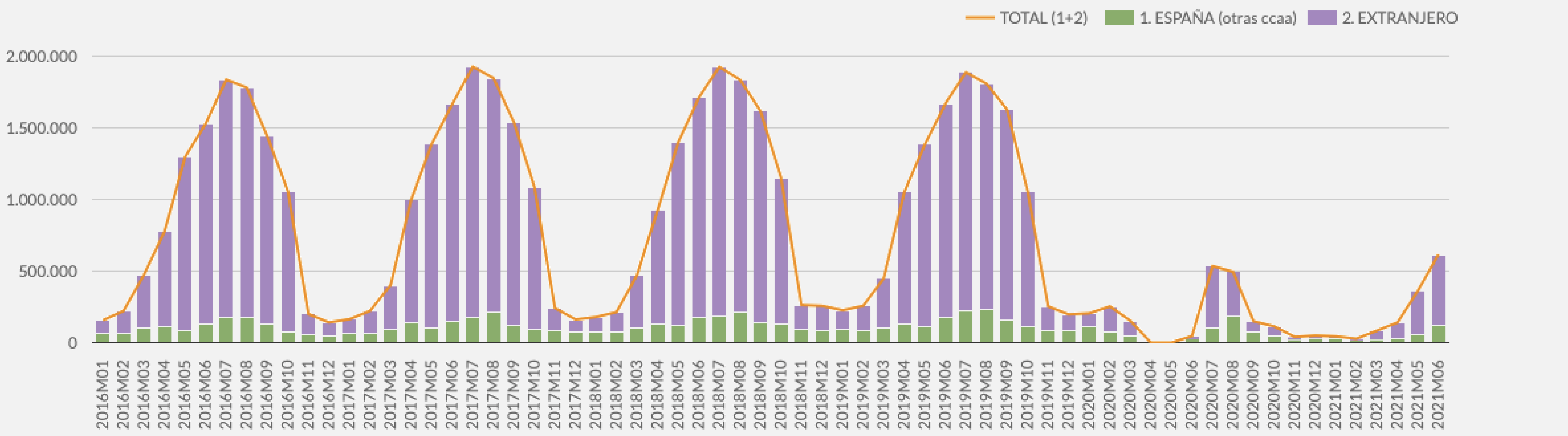

Figure 15: Monthly tourist arrivals in Mallorca (2016 – June 2021) (green: domestic tourists; violet: foreign tourists) (Source: IBESTAT (n.d.-c))

- After a high infection rate in winter of 2020/2021, the health situation improved considerably in spring 2021. As a result, the Balearic Islands were removed from the list of coronavirus risk areas of the Robert Koch Institute in mid-March 2020. According to the Spanish newspaper *El País* the available airplane tickets from Germany to Palma were sold out only a few hours after the update of the list (Bohórquez & Sevillano, 2021). Consequently, airplane companies drastically increased their flight connection to Majorca during the Easter week by up to 466 %.
- In July 2020, about 83% of the Majorcan hotels reopened for the summer season. However, the supply considerably exceeded the international demand, which has led to a "price war" among the hotels and price reductions up to 40%, particularly in hotels located in popular coastal areas (Ruiz Callado, 2021). In July 2021, Spain, including the Balearic Islands, was again designated by the Robert Koch Institute as a risk area, and at the end of July as a high incidence area. The effect of this designation remains at the time of compiling this case study (July 2021) still unclear.
- In 2020 the average stay of length increased notably from 6.6 days (2019) to 7.7 days (2020) (IBESTAT, n.d.-g). Besides, the percentage of domestic tourists increased during the pandemic from approx. 13.3% (2019) to 35% (2020) (IBESTAT, n.d.-b).

Visitor segments (Share and/or numbers)

What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.

As Figure 16 presents, Majorca is particularly popular among Germans (35.1%), residents of the United Kingdom (20.5%), and Nordic Countries (6.1%). 13.5% are national tourists (numbers of 2019). In 2019, most of the tourists of Mallorca were leisure tourists (90.8%) (AETIB, Conselleria d'Innovació, Recerca i Turisme. Govern de les Illes Balears, 2020, p. 32).

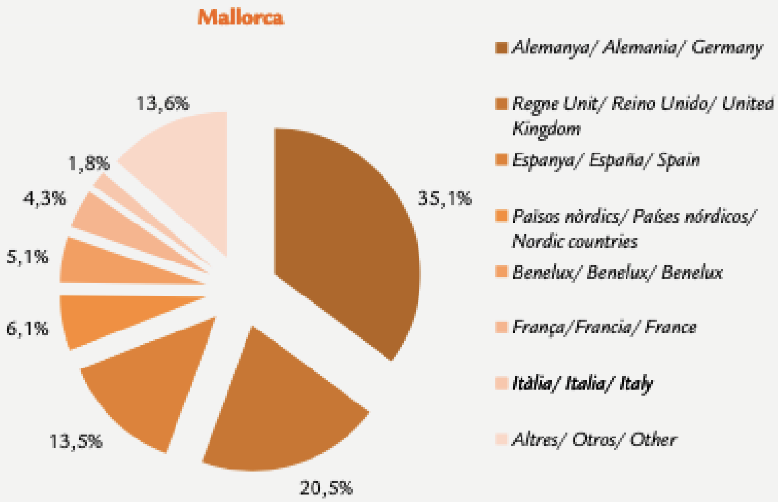

Figure 16: Distribution of tourist arrivals in Majorca according to country of residence (2019) (Source: Agència d'Estratègia Turística de les Illes Balears (2020, p. 32)

41.3% of the visitors booked a package tour for their vacation on Majorca.
Approx. 70% stayed at a hotel or similar type of accommodation, 11% in a rented accommodation and 5% at their own property (AETIB, Conselleria d'Innovació, Recerca i Turisme. Govern de les Illes Balears, 2020, pp. 33–34).
The daily average expenditure of tourists is 150€ and Majorca accounted for 72.8% of the total tourism expenditure of the Balearic Islands.
The average length of stay lasted 6.6 days (IBESTAT, n.d.-g).

Temporal distribution/seasonality

When are the temporal peaks (if any)? How is the seasonal distribution of visitors? Explanation and numbers (if available)

Due to its popularity and establishment as an internationally popular sun and beach destination, the yearly tourism peaks are during the summer months (June until September). According to a report published by *Brandtour*, in 2018 62.58% of the visitors travelled to Majorca between June and September (Brandtour, 2019, p. 5). Consequently, the percentage of available hotel beds and their occupancy rate vary significantly during the year with high peaks in the months of June to September. While in January 2019 only 5.9% of the hotel beds were available and 33% of them occupied, in August 96.8% of the hotel beds were available and of these were 89.7% occupied (AETIB, Conselleria d'Innovació, Recerca i Turisme. Govern de les Illes Balears, 2020, p. 41).

Spatial distribution

What are the tourism hotspots? How is the spatial distribution of visitors? Explanation and numbers (if available)

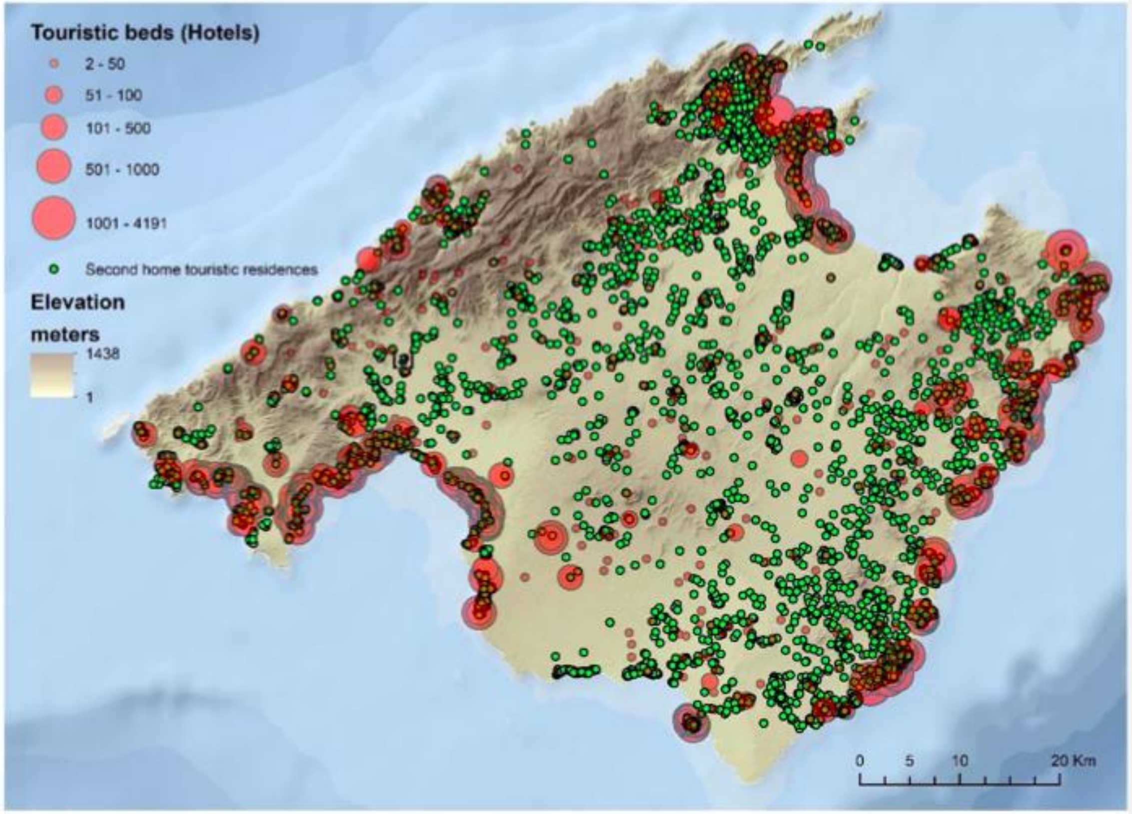

Figure 17: Distribution of hotel equipment on Majorca on topographic basis (Source: Ruiz-Pérez & Seguí-Pons (2020, p. 9 based on Govern de les Illes Balears (2020) and Inside Airbnb (2020))

Since Majorca is mainly visited as a sun and beach destination during the summer season, its main tourism hotspots are located on its coastline, particularly in the municipalities of Palma, Calvià, Alcúdia, Sant Llorenç des Cardassar, Manacor, Capdepera (Exceltur, 2021a, p. 10). The city of Palma is a popular complementary attraction due to the cultural and commercial offer located primarily in its old quarter (*see case study of Palma*). Besides, also the mountainous range *Serra de Tramuntana*, declined a UNESCO World Heritage Site in 2011, and particularly the villages Sóller and Valdemossa, have become popular tourism hotspots.

Due to agrotourism and holiday vacation accommodation offers are also dispersed in the interior of the island (Ruiz-Guerra et al., 2019). In 2019, the Balearic Islands were the leading destination of international tourists using rural accommodation offers in Spain (Moreno-Luna et al., 2021).

Additional tourism figures
Are there any other important numbers/aspects to understand the tourism situation in the destination?
Since the beginning of mass tourism in Majorca in the 1960s, tourism development on the Balearic Islands can be divided into **several tourism booms** with different characteristics and tourism developments (Andreu et al., 2003; Rullan, 1999; Schmitt & Blazquez Salom, 2003): During the **first boom** (1960 until 1973), tourism increased rapidly and was concentrated in selected Majorcan coastal areas and in hotels (Andreu et al., 2003, p. 62). The **second boom** (1975 until 1990) was characterized by a further tourism expansion on the coastline and the rise of apartment vacation, allowing also visitors with smaller budgets to spend their holiday on the island. During the **third boom** (1990 until approx. 2001) Majorca became also a popular destination for residential tourism. Besides, non-regulated tourist accommodation increased and tourism expanded to the island's inland. Andreu et al. (2003) came to the conclusion, that the tourism development of the following years, approximately from 2002 on, characterized by an increased consumption of natural resources accompanied by the regularisation of rural tourism accommodation, can be categorized as a **fourth boom** (Morell, 2019). Morell (2019, p. 308) also speaks of a **fifth boom** starting around 2017, created by peer-to-peer accommodation offers on digital platforms, contributing to a dispersal of tourists into residential neighbourhoods.

3. Tourism management in the destination

Organisation of tourism & stakeholders
How is tourism in the destination organised? Which authorities are responsible for tourism? **Who are the central stakeholders involved in tourism management and development? Is there a monopolisation/dominance of certain businesses? What are the responsibilities of the different stakeholders?**
Tourism is managed at **several governmental levels**, from the Government of the Balearic Islands (GOIB) and the *Agència d'Estratègia Turística de les Illes Balears* (AETIB), the Council of Majorca (Consell de Mallorca) and the *Fundació Mallorca Turisme* to the municipalities of Majorca/the 53 town councils.
Next to the public sector, the **private sector** plays a central role. Particularly international tour operators have a strong influence on the tourism offer of the island. Furthermore, internationally established Balearic hotel chains (e.g., *Barceló Corporación Empresarial*, *Riu*) dominate the accommodation offer. According to Murray (2012 in Hof & Blázquez-Salom, 2015, p. 774) they make up 65.33% of the accommodation in the Balearic Islands.
There is a range of **associations,** advocating for the interests of the tourist industry and certain sub-sectors or closely related sectors: the Hotel Business Federation of Majorca (FEHM)*, HABTUR Balears* (the association of the touristic rental in the housing sector of the Balearic islands), the Conferderation of Business Associations of the Balearic Islands (CAEB)*,* Federation of Vacation Apartments of Majorca (Federación ETV)*, the* Balearic business group for the rental of vehicles with or without drivers (AEVAB)*,* the Balearic business group for travel agencies (AVIBA) *and* the Federation of small and medium-sized enterprises of Majorca (PIMEM).
Another central stakeholder group involved in tourism development are **civic and environmental organizations** which often address the negative impacts of tourism. The oldest environmental organization of Majorca is the *Grup Balear d'Ornitologia i Defensa de la Naturalesa* (GOB), whose main objective is the preservation of the Balearic biodiversity from negative impacts, partly deriving from the high tourism pressure of the islands. *Terraferida*, *Palma XXI* and *Tramuntana XXI* are other civic organization which were founded in the past decade and address tourism development and its impacts.

Tourism organisation(s)
Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?
• The **AETIB** is a public company, which belongs to the regional Ministry of Tourism of the **Balearic Government**. It is responsible for the overall promotion of the Balearic islands and their sustainable tourism management. These two main objectives are presented in the *AETIB Action Plan of 2020* (AETIB, 2020d). Besides, it is responsible for the information portal of the Balearic Islands[9]. • The ***Fundació Mallorca Turisme*** is a public, non-profit organization, integrated in the **Council of Majorca**. In 2018, the GOIB transferred to the organization the responsibility to promote Majorca as a tourism destination. Since then, it is responsible for the strategic orientation of Majorca. Besides, it is in charge of the official tourism portal of Majorca[10]. In addition, it has a Tourism Advisory Council "in which the private sector is present as a strategic point of reference for advice and consultation" (Fundació Mallorca Turisme, n.d.). • The **53 town councils** have a certain decision-making power regarding the interpretation and adoption of (touristic) regulations and partly individually promote their municipality. The municipality of Palma has as the capital region special decision-making power.
The overall mission of the current ***Strategic Tourism Plan of Mallorca 2020-2023****, developed by the Fundació Mallorca Turisme,* consists of "promoting a new image of the destination based on a versatile, sustainable and competitive tourism model" (Fundació Mallorca Turisme, n.d.). Thereby, as stated in its mission statement and central values, the participation of all directly and indirectly involved stakeholders and a diversification of the tourism offer are considered as vital. As a response to the Covid-19 crisis, the *Fundació Mallorca Turisme* (n.d.) developed the *Post COVID-19 reactivation plan,* a specific plan that "addresses the COVID 19 crisis and adjusts to a new scenario marked by the loss of the perception of SAFETY of destinations at a global level. To this end, all necessary actions in the organisational, promotional and physical and digital adaptation of the destination will be considered as instruments for the gradual recovery of tourism activity".
Additional comments: Are there any other important facts to understand the tourism management in the destination?

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers
What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)
Root causes:
• In the 1950s a range of **central changes** have facilitated the development of Majorca as an international sun and beach mass tourism destination (Schmitt, 1999, p. 53; Bardolet, 1992, p. 36), including the lifting of the political and economic embargo against Spain, the economic opening and

9 Offical website: www.illesbalears.travel .

10 Official website: www.infomallorca.net .

easement of travel restrictions for Spain, the introduction of the first charter flights, increased days of paid holiday and the popularity of traveling by car in Western Europe.
- In the following decades, the sun and beach mass tourism concept Majorca today is known for was established, and the island experienced several tourism booms, resulting in **a strong increase of international visitor numbers** while the percentage of domestic visitors quickly decreased.

Resulting effects & destination factors intensifying overtourism:
- In order to meet the sudden and high tourism demand, particularly during the two first tourism booms tourism developed rapidly and **without planning**, which has resulted in massive constructions on the island's coastline (Garcia & Servera, 2003).
- The increasing visitor numbers resulted in a **restructuring of the Majorcan economy** towards a service sector dependent on the tourism sector. Already in the early 1990s, Mallorca was considered to be a mature tourism destination (Nawijn & Mitas, 2012; Peeters et al., 2018, p. 196).
- In addition, the island became popular among **party tourists** (Schmitt, 2007), affecting its image.
- In the 1990s, efforts to rebrand the islands' image towards a destination of **"quality tourism",** including the promotion of luxury segments and residential tourism as well as a decentralization of tourism (Schmitt, 2007, p. 22). Consequently, **further construction** on the island and the proliferation of **new tourism segments**, resulting in new demand in the islands' inland and in the *Serra de Tramuntana* mountain range.
- Due to continuous tourism demand and new tourism segments increase of **foreign real estate investments and housing speculation** (Vives-Miró, 2011). Furhermore, continuous **adaption of the island's infrastructure** to the high tourism demand, including the construction of highways and the expansion of the airport of Palma.
- Vacation on Majorca became more affordable and accessible due to the establishment of Palma as a popular destination of **low-cost carriers**, which have gained a strong market position.

Sudden, unpredictable events: The **geopolitical instabilities in former competitor tourism destinations** such as North Africa and Middle East, resulted in a shift of tourism demand to destinations perceived more secure, including the Balearic Islands (Brandtour, 2019, p. 7).

New trends: The **rise of peer-to-peer accommodation** offers has led to a further dispersal of tourists, contributing to an increase of rental costs and the exodus of local residents, particularly in the city of Palma (Morell, 2019; Yrigoy, 2016). Besides, the Balearic Islands have become the second most visited **cruise ship destination** of Spain in 2019 (Puertos del Estado, 2021, p. 24).

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders? Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

The tourism sector represents the most important source of revenue for the island and thus, implies several positive socio-economic impacts, including the development of jobs, tourism revenue and a general economic prosperity. Besides, the tourism demand on the island has promoted the development and expansion of the island's infrastructure. However, due to the concentration of tourist arrivals during the summer, the destination experiences several temporal, but also constant negative impacts. These impacts have partly already existed for decades, but they have further intensified during the past years.

Impacts on infrastructure and environment:

- **Congestion** at natural sites, beaches and natural parks during summer (Brandtour, 2019, p. 7). An estimated 56% of the Majorcan beaches have exceeded their theoretical capacity (Consell de Mallorca et al., 2020, p. 46).
- **Traffic congestion** during summer. Between 2005 and 2015, traffic has increased by 42% in Mallorca (Ruiz-Pérez & Seguí-Pons, 2020, p. 9).
- **Water scarcity in the summer** is enhanced by tourism and a temporal decoupling of the natural water supply (Gomez et al., 2006). Particularly residential tourism is considered as a water intense segment (Hof & Blázquez-Salom, 2015; Hof & Schmitt, 2011). In the past this has resulted in an overuse and salinisation of groundwater resources (Gomez et al., 2006, p. 446).
- During the summer months, the island experiences high **energy consumption** (Bakhat & Rosselló, 2011) and an **increase of solid waste and waste water**, resulting in an overuse of infrastructure capacities and management difficulties.
- The massive construction on the coastline has led to a **degradation and erosion of the beach-dune system** and to a **visual degradation** in some coastal areas (Garcia & Servera, 2003). Most urban beaches must undergo beach renourishment, resulting in addiction of sand injections and additional economic costs.
- Other environmental impacts are the increase of CO^2 emissions (Andreu et al., 2003) and **air pollution** due to tourism traffic including planes, coaches and rental cars (Brandtour, 2019; Saenz-de-Miera & Rosselló, 2014), which contributes to climate change (Blázquez-Salom et al., 2021).

Impacts on local economy:

- The island is highly **dependent on international tourism demand**, strongly emphasized by Covid-19 pandemic (Blázquez-Salom et al., 2021, p. 20)
- High percentage of **temporary working contracts and frequent job rotation**. This implies severe impacts for the islands' labour market, such as low specialisation, qualification or training as well as poor work-life balances (Brandtour, 2019, p. 6).
- Particularly in Palma (González-Pérez, 2020), but also other popular municipalities such as Calvià and Sóller, the **costs of housing** (rental as well as purchase) and living have increased.
- The rising **cost of living** and poor working conditions contribute to an **intensification of poverty**. In 2019, the Balearic Islands were the Spanish autonomous community with the greatest increase of inequality between rich and poor residents (Farragut, 2019).

Impacts on social environment:

- The **index of human pressure** in Majorca always reaches its maximum in August and has considerably increased during the past two decades (see Figure 17).
- Impacts on the **local culture** can be observed. For example, road signs are partly more orientated on foreign languages (Royle, 2009).
- Many local habitants cannot afford living in popular tourist areas and consequently have to **move to the periphery or island's inland**. These developments shift the pressure from popular tourist areas to other parts of the island. At the same time, the **percentage of foreign residents** increases in popular tourist areas.
- Socio-cultural impacts are particularly visible in the **city centre of Palma** (*see Case Study of Palma*).
- As a result, **discontent** is increasingly pronounced by the local population, which is also manifested in the foundation of civil organizations. In September 2017, the first manifestation directly addressing tourism massification on the Balearic Islands took place in Palma (Bohórquez, 2017).

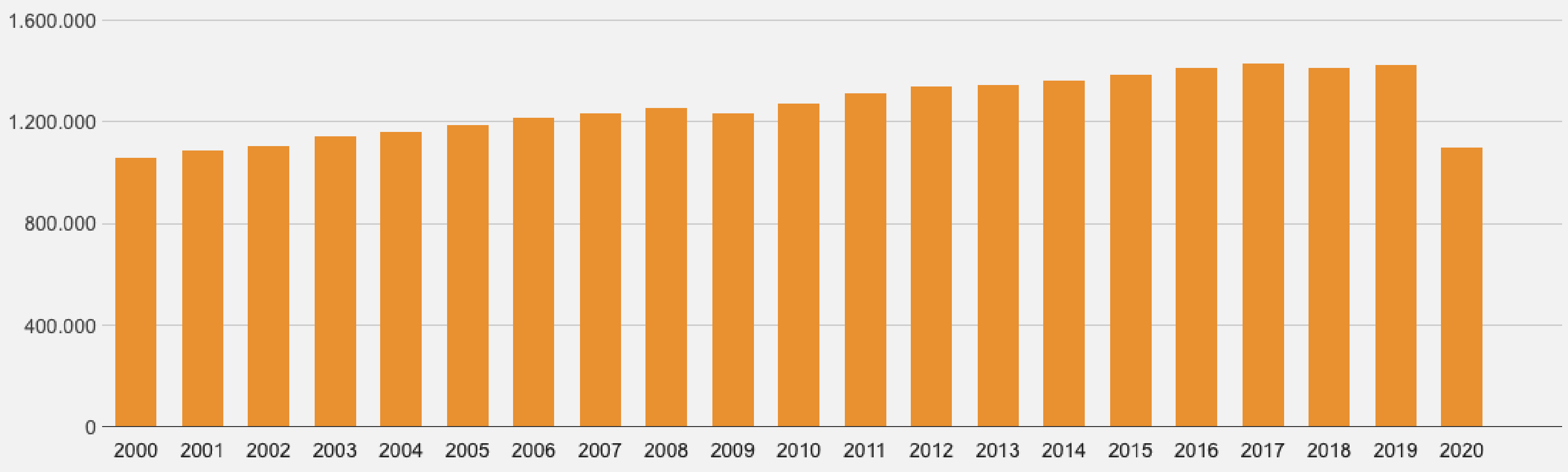

Figure 18: Monthly median Human Pressure Index in August in Majorca in number of persons (Source: IBESTAT (n.d.-c))

Impacts on visitor experience:

- Certain parts of the island, such as the Playa de Palma, are popular among party tourists which partly show an uncivilized behaviour. This also affects the holiday experience of other visitors (Zeit Online/dpa, 2017) and influences the image of the island.
- Particularly environmental and physical-infrastructural impacts such as overcrowding and a high road congestion have impacts on the visitor experience.

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

Most of the **Majorcan residents** (60.2%) are satisfied or very satisfied with tourism (AETIB 2021a) . However, almost a quarter (23.8%) is also dissatisfied or even very dissatisfied, underlining the discontent of parts of the local population.

Crowding and congestion negatively affect the **visitor experience**. Besides, also the uncivilized behaviour of some tourists might impact the experience of other tourists negatively. Surveys indicate, that the satisfaction of tourists with their stay on Majorca has been decreasing (Consell de Mallorca et al., 2020, p. 49). In 2016, 56.6% of the visitors felt that they had been negatively affected by crowding and traffic congestion and 54.2% felt disturbed by an excess of construction and commercialization (AETIB & GOIB, 2017, p. 22).

Local businesses are also partly affected by the uncivilized tourist behaviour (Majorca Daily Bulletin, 2018). In addition, the high dependency on international tourism demand entails risks and challenges for local businesses, particularly during times of crisis, as the Covid-19 pandemic has just shown. Concerning the revenue of the accommodation sector in 2021, employers still expected a loss of turnover of -47% in comparison to 2019 (Exceltur, 2020, p. 27). However, already before the outbreak of the pandemic, a survey conducted by the *Fundació Gadeso* in 2019 outlined that 42.7% of the employees and entrepreneurs of the Majorcan accommodation sector seemed to be "restless and insecure", particularly regarding the evolution of the prices and the price pressure exerted by international tour operators (Fundació Gadeso, 2019, p. 1/58/19). Concerning other tourism subsectors such as gastronomy, transport and touristic commercial services, the level of insecurity was with 48% even higher.

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

As an island, the bed capacities and natural resources are limited, which leads to capacity and infrastructural challenges during the peak season. As a main bottleneck the council of Majorca and the *Fundació Mallorca Turisme,* mentions the air and sea connectivity in the wintertime (Interview; Consell de Mallorca & Sustainable Tourism Observatory of Majorca).

Additional comments on the overtourism situation

Are there any other important aspects to understand the unbalanced tourism situation in the destination?

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

Since 2016, the Balearic government pursues the objective to shift from the dominating traditional sun and beach mass tourism to “a more sustainable, competitive, responsible, and quality tourism” (Brandtour, 2019, p. 7). For the achievement of the rebranding and restructuring of the tourism offer two main measures have been implemented by the AETIB: the Sustainable Tourism Tax and the *Better in Winter* strategy.

Sustainable Tourism Tax:[11]

- Tax imposed on July 1st 2016, varying depending on the season and the type of establishment and its category, including cruise ships.
- it is used for the compensation of environmental tourism impacts and the improvement of nature conversation, recovery and rehabilitation of historic and cultural heritage, the promotion of sustainable tourism, product diversification and measures against seasonality, promotion of scientific research projects, the improvement of employment and training and investment in social renting (AETIB, n.d.-c).

***Better in winter* strategy**:

- Since 2017, the Balearic Islands have been actively promoted as attractive destination outside the summer season for “a greater balance of the tourism activity and improve the competitiveness of the sector by putting in value tourism products based on authenticity” (Brandtour, 2019, p. 7).
- Also on the official promotion website of the Balearic Islands, further information on attractive tourism offers during the low season is published[12]. Besides, a range of videos, promoting the winter tourism offer of the Balearic Islands in different languages were developed.

[11] Official website: www.illessostenibles.travel .
[12] Official link: https://www.illesbalears.travel/erlebnis/de/illesbalears/better-in-winter .

New tourism segments and profiles:

- The following eight main tourism segments of the Balearic Islands have been defined: gastronomic tourism, cultural tourism, active tourism, ecotourism, sport tourism, health and well-being tourism, luxury tourism and MICE (AETIB, 2021b).
- The AETIB actively promotes public as well as private organizations related to these segments in form of a public-private partnerships.

Agenda Balear 2030:

- In January 2020, the Balearic government approved the first European regulation restricting considerably alcohol consumption in a popular tourism destination (GOIB, 2020). It affects the Majorcan tourists areas Arenal and Magaluf as well as one Ibizan tourist area.
- According to the GOIB the regulation was "defended and requested by institutions, social agents, businesses and employers' associations".
- By entering into force, inter alia alcoholic excursions, "balcony hopping" and the sale of alcohol at a flat rate were forbidden.

Plan de Intervención en Ámbitos Turísticos de Mallorca (Plan of Intervention in Tourist Areas of Majorca, PIAT):

- Published by the Council of Majorca in cooperation with the AETIB and the GOIB; entered after its first test phase in 2020 into force.
- Definition of a maximum number of guest beds on the island of Majorca of 430 000 (315 000 in hotels and 115 000 in holiday apartments) and a maximum density of tourists per hectare in urban and rural areas. Besides, registered hotels must have a certain standard of energy efficiency and a low water consumption. The registration of rural hotels is only under strict conditions allowed. In touristic saturated regions, such as the Playa de Palma and Arenal, licenses for guest beds are no longer issued.
- Concerning the vacation rental, the plan includes different regulations for the vacation apartment rental, depending on the degree of tourism development in the respective municipality.

Sustainable Tourism Observatory of Majorca:

- In June 2021, Mallorca jointed the Sustainable Tourism Observatory of the United Nations World Tourism Organization (UNWTO).
- It is managed by the *Fundació Mallorca Turisme* and will be used in order to monitor environmental, social and economic tourism impacts and thus, to facilitate tourism decision-making.
- The data of the observatory will be published open source and used as a central analysis tool for future tourism monitoring and management.

Plan Director Sectorial de Movilidad de Las Illes Balears 2019-2026:

- In May 2019, the *Sectoral Master Plan for Mobility in the Balearic Islands 2019-2026* was approved. The plan defines several objectives regarding the transformation of traffic and transportation on the Balearic Islands.
- Pursuit of a new modal split of mobility, increasing the usage of public transport and other alternative means of transport. The GOIB estimates that with help of the planned measures also the car usage by tourists could be reduced by up to 30% (GOIB, 2019b).
- Other measure taken in the field of mobility include the restriction of access to certain areas such as the beach and the popular lighthouse of Formentor during the summer season (Pollença, 2021). Instead, visitors can use a shuttle bus service, public transport and bicycles.

Abandonment of single plastic usage and promotion of a circular economy:

- *Ley de Residuos y Suelos Contaminados de las Illes Balears* (Waste and Contaminated Soil Law of the Balearic Islands), approved by the GOIB in February 2019. Public administrations, citizens, social entities and private sector companies have been involved in the development of the law using different channels such as a citizen consultation on the web portal of the GOIB and meetings with different sectors, including the tourism industry (Ley 8/2019, de 19 de Febrero, de Residuos y Suelos Contaminados de Las Illes Balears, 2019).

- Prohibition of the usage of single-use plastic and restriction of using other materials such as microplastic (Vincens Rodríguez & Gaya Vilar, 2020). Besides, it includes a stricter regulation on the separation of waste.
- As a reaction to the Covid-19 crisis, the GOIB developed the *Pacto para la reactivación y la transformación económica y social de las Illes Balears* (Pact for the reactivation and economic and social transformation of the Balearic Islands) with 10 fields of actions. One of them consists of the promotion of a circular economy. The *Environmental Technology Park of Mallorca* (TIRME) is concessionaire of the public service of urban waste treatment in Mallorca and has initiated several circular economy projects on the Balearic Islands (Interview; Consell de Mallorca & Sustainable Tourism Observatory of Majorca).

Regulations in the field of environmental protection and conservation from tourism pressure:

- The ***Decreto para la Conservación de la Posidonia Oceánica*** (Decree for the Conservation of Posidonia Oceanica) regulates the activities that may harm the plant and its habitat and promotes conservation measures. The augmenting tourism pressure in combination with demographic pressure in mentioned explicitly as a thread for the species (Decreto 25/2018 de 27 de Julio, Sobre La Conservación de La Posidonia Oceanica En Las Illes Balears, 2018). Consequently, the decree regulates inter alia the anchoring of vessels, including touristic boats.
- The ***Ley 10/2019, de 22 de febrero, de cambio climático y transición energética*** (Law on Climate Change and Energy Transition): Due to the Balearic Islands' high vulnerability to climate change and dependency on external energy sources and fossil fuels, the GOIB decided to reorientate the energy sector towards 35% renewable energy use in 2035 and a total abandonment of fossil fuels in 2050, as well as to reduce energy consumption (by 40% until 2050) and CO² emissions significantly (by 90% until 2050). The tourism sector has been identified as a key sector for addressing climate change and its effects. Central measures include the sensibilization of employees and tourists for the impact of climate change, a sustainable use of resources and the promotion of environmental certification in the tourism sector (Ley 10/2019, de 22 de Febrero, de Cambio Climático y Transición Energética, 2019a, p. 7594).

Innovative aspects

What are unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

- "Smart destinations" is one of the four main factors established in the *Strategic Tourism Plan of Majorca 2020-2023*. The Council of Majorca initiated the project ***Smart Island Mallorca***[13] with the objective of creating a platform which collects and manages information about the island and provide it to its residents and other stakeholders in real-time (Consell de Mallorca, 2021a).
- The project includes several measures related to the topics of tourism, mobility, energy efficiency, resilience and open governmental data which are presented on the official website of the projects. Examples are the establishment of a multi-channel tourism vertical platform, visitor flow analysis tools, intelligent bus stops and a system for the management of the island's traffic flow.
- Also the platform created for the Sustainable Tourism Observatory will be based on new technologies (Interview; Consell de Mallorca & Sustainable Tourism Observatory of Majorca).

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

- The *Strategic Tourism Plan 2020-2023* of Majorca consists of four main factors with are based on 34 strategic lines, broken down into specific actions whose implementation is supervised by the *Fundació Mallorca Turisme*.

[13] Official webpage: https://smart.conselldemallorca.cat/es/.

- In addition, the data obtained throughout the observatory will help to analyse current issues, predict future tourism developments and, based on these steps, develop and monitor the success of short, medium and long-term improvement measures (Interview; Consell de Mallorca & Sustainable Tourism Observatory of Majorca).

Challenges & success factors

What were the central challenges when planning, developing, and implementing the measures?
What were the central success factors when planning, developing, and implementing the measures?

(Representative of the Sustainable Tourism Observatory of Majorca, *Fundació Mallorca Turisme*)

Historically, the private and public sector of Majorca have been working more separately. For implementing the Sustainable Tourism Observatory, a project based on the participation of several public and private stakeholders, it was important to explain the project in detail to all involved stakeholders and to mobilize them to participate actively in the project. At the same time, the Covid-19 pandemic has further stressed the need of reliable, real-time data. Today, the project is based on an agreement of all political parties, the share of data among a variety of stakeholders and represents a common goal of politics and the private sector.

The participation of all involved stakeholders in tourism development was also highly revelvant for for the development of the *Strategic Tourism Plan* (Fundació Mallorca Turisme, n.d.) as well as for developing the *Post Covid-19 Reactivation Plan* (Fundació Mallorca Turisme, n.d.).

Transferability to other destinations with similar characteristics

What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?

(Interview, Consell de Mallorca)

In order to peruse a sustainable tourism management, public-private governance, i.e. a close cooperation between public and private actors and the pursuit of the same objectives, is essential. Besides, since Majorca is an island with highly limited capacities, it is central to ensure that the positive tourism impacts actually stay in the island and result in benefits for local stakeholders.

Additional comments on solution approaches

Are there other important aspects to understand the strategies/measures chosen?

6. Monitoring/indicators

Monitoring of overtourism situation

Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?

The Majorcan Sustainable Tourism Observatory is currently developed as the central tourism monitoring tool of the island. It is managed by the *Fundació Mallorca Turisme* in close cooperation with the public and private sector. By implementing new technologies such as AI the observatory will be able to predict tourism development by 2023 (Interview, Consell de Mallorca & Sustainable Tourism Observatory of Majorca)

Indicators used

What are indicators used for the observation? Which indicators have proven successful?

The Sustainable Tourism Observatory of Majorca will use 22 sets of indicator groups, consisting of indicator groups established through the SDG by the UNWTO as well as indicators especially relevant for Majorca (Interview Consell de Mallorca & Sustainable Tourism Observatory of Majorca):

- Innovation
- Production and sustainable consumption
- Biodiversity and the safeguarding of nature
- Cultural heritage and traditions
- Mobility
- Use and regional planning, tourism development supervision
- Visitor satisfaction and behaviour
- Safety and security and health
- Sports Tourism
- Solid waste management
- Mobility
- Water management, business structure
- Wastewater management
- Health safety and security
- Economic benefits of the destination
- Tourism seasonality
- Employment
- Energy management
- Climate change and tourism destination capacity
- Inclusivity and universal accessibility
- Local satisfaction
- Governance

Specific indicators

Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?

Perception of the residents: In the framework of the Sustainable Tourism Observatory, local satisfaction with tourism will be monitored as one of the 22 indicator groups. Besides, since 2016 every two years a survey on the tourism perceptions of the residents of the Balearic Islands is conducted and published by AETIB (2021a).

Seasonality: The Observatory will also analyse tourism seasonality. In addition, the AETIB (n.d.-a) measures since 2015 the temporal concentration of tourism dependency per island indicating it in an coefficient between 0 and 1, including also its annual change. In Majorca, the temporal concentration was with 0,40 in 2019 under the average of the Balearic islands (0,44 in 2019) the lowest rate of the Balearic Islands and it has been decreasing from 0,43 in 2015 to 0,40. However, in comparison with other popular Spanish regions tourism seasonality is very high. In addition, the Balearic statistic institute

IBESTAT (n.d.-a) measures since 1997 the Daily index of Human Pressure on the Balearic Islands, which allows to compare its development and put it in relation with tourism developments.

Private accommodation: IBESTAT (n.d.-b) facilitates data on the number of tourists staying in non-regulated accommodations such as private accommodation and other non-regulated accommodation. However, non-regulated hotel beds are not included in the official statistics of overnight stays and number of hotel beds presented by IBESTAT. Local administrations estimate that in 2016, before the implementation of the PIAT, 54% of the tourist stays in dwellings were not regulated and that 31% of the non-regulated accommodation offer were in Palma (Consell de Mallorca et al., 2020, p. 75).

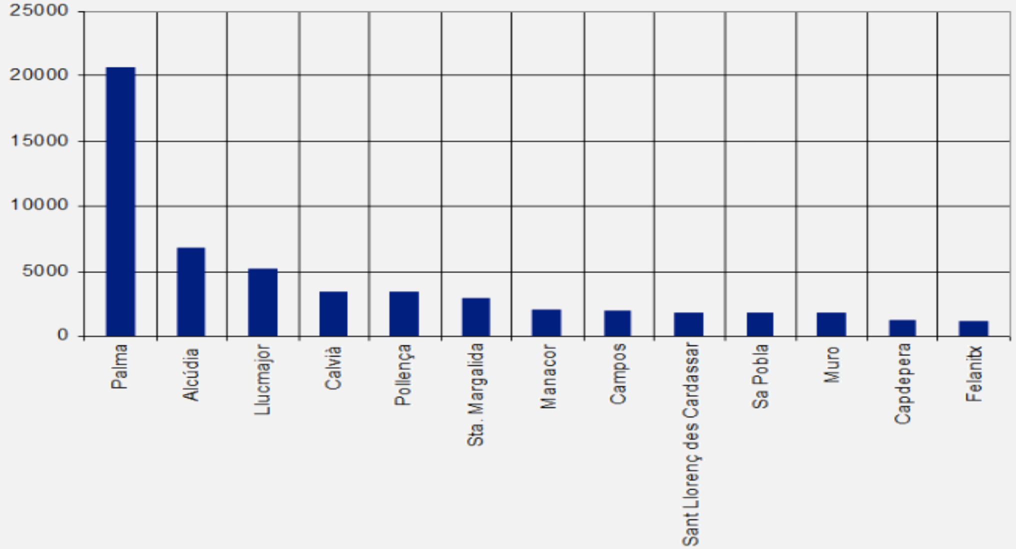

Figure 19: Estimated number of non-regulated hotel beds per municipality in 2016 (source: Consell de Mallorca et al. (2020, p. 76)

Day visitors: The number of cruise tourists and cruise ships is monitored and published by the Port Authority of the Balearic Islands *Ports de Balear* (2021) and regularly presented in the annual tourism reports of the AETIB.

Challenges and success factors of the monitoring

What are the challenges and success factors of the monitoring system/the indicators?

See challenges and success factors mentioned above (close cooperation between private and public sector for the implementation of the new monitoring system)

Additional comments on monitoring/indicators: Are there other important aspects regarding the monitoring?

7. Management of the pandemic

Changes due to the pandemic
What has changed due to the pandemic? How has the pandemic influenced the tourism development?
How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?
(Interview, Consell de Mallorca & Sustainable Tourism Observatory of Majorca, *Fundació Mallorca Turisme*) The crisis has fastened the objectives set by the *Fundació Mallorca Turisme* to reduce mass tourism and pursue instead a sustainable tourism development. Consequently, it has stressed the importance of already planned and implemented measures in order to counter tourism pressure and particularly seasonality. Also among central tourism stakeholders the pandemic has promoted a greater understanding for the importance of sustainability and led to a "wave of change". As a response to the Covid-19 crisis the *Fundació Mallorca Turisme* developed the *Post Covid-19 Reactivation Plan*, "a revision and adaptation of the shortly before developed *Strategic Tourism Plan of Mallorca 2020-2023* to global or local crisis scenarios, such as the current global health crisis" (Fundació Mallorca Turisme, n.d.)[14]. In addition, the campaign *Mallorca Safe Tourism* was introduced. The official website of the campaign[15] provides tourists, tour operators, travel agencies, consultancies and offices of the Spanish national tourist board *Turespaña* relevant information on the Covid-19 situation on the island. Besides, the Council of Majorca has provided, throughout the *Fundació Mallorca Turisme* and in collaboration with the Balearic Government, subsidies to tourism sub-sectors including accommodation businesses, gastronomy services and MICE and event organizers.
Additional comments Are there other important aspects regarding the pandemic?
Also the findings by Blázquez-Salom et al. (2021, p. 21) indicate that stakeholders in Majorca perceive the Covid-19 crisis as an opportunity to "to re-emerge with a more sustainable model at a social, economic, and environmental level that is not based on the growth paradigm".

8. Outlook & Additional Comments

Expected future changes
What are the expected changes in the future tourism development? What are the plans for post-covid tourism?
There are four strategic factors presented in the *Strategic Tourism Plan 2020-2023* and the *Post-Covid Reactivation Plan* that will support future tourism planning and promotion actions for Majorca (Fundació Mallorca Turisme, n.d.): (1) Consolidation: Positioning Majorca with a "new and updated image" consolidating the prestige and professionalism of all involved stakeholders. (2) Innovation: Diversification and improvement of the Majorcan tourism, introducing new tourism segments and targeting new markets of interests. (3) Sustainability: Implementation of further measures enhancing a responsible tourism development of the island, based on cultural, social and environmental sustainability criteria. (4) Smart Destination: Introduction of new processes, tools and promotional strategies responding to the new tourism demand and current tourism developments.
Risks and uncertainties

[14] Original in Spanish: "El principal objetivo de este programa de redefinición es, por tanto, la revisión y adaptación del actual Plan Estratégico de Turismo de Mallorca a escenarios de crisis globales o locales, como es el caso la actual situación de crisis sanitaria global".
[15] Offical website: https://mallorcasafetourism.com/ .

What are the most relevant risks and uncertainties currently?

(Interview, Consell de Mallorca)

The current and future security and travel restrictions applied in the main source markets represent the biggest current challenge, since they directly influence the travel demand and behaviour of the source markets.

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

(Interview, Consell de Mallorca)

- It is important to collect Big Data for taking political touristic decisions as well as setting future strategies.
- In order to implement the strategies successfully, the respective objectives must be measurable and regularly updated.
- Besides, it is highly important to collaborate with the local community and the private sector.

Additional comments

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Representative of Tourism Director, Consell de Mallorca & Representative of the Sustainable Tourism Observatory of Majorca, *Fundació Mallorca Turisme*

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Malta

1. General Information about the destination

Case study item	Information	Data source
Destination name	Malta	
Destination type	Island	
NUTS 3 Level		
Country	Malta	
Region	Malta	
Tourist area size (km2)	316km2	
Population		
inhabitants in destination	504’062 (2019)	
inhabitants in tourist centre/core area	504’062 (2019)	
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports **Importance of tourism in destination (GDP, employees)**	Total tourism expenditure (2019): EUR 2.2 billion Tourist expenditure per capita (2019): EUR 807 Tourist expenditure per capita (2018): EUR 809 Tourist expenditure per capita (2017): EUR 856 Employment in accommodation (2018 yearly average): 7,532 full time; 6,651 part time. The contribution of tourism to Malta’s GDP in 2018 was 12,8% m	https://www.mta.com.mt/en/file.aspx?f=32328
tourist arrivals in destination (2015-2019)	Inbound tourism to Malta (incl. overnight cruise passengers) 2017: 2,314,596 2018: 2,633,919 2019: 2,771,888 Inbound tourists:	https://www.mta.com.mt/en/file.aspx?f=32328

	2017: 2,273,837 2018: 2,598,690 2019: 2,753,239	
overnight stays in destination (2015-2019)	Nights spent at tourist accommodation establishments 2015: 373 242 2016: 348 753 2017: 396 167 2018: 429 040 2019: 474 950	https://ec.europa.eu/eurostat/databrowser/view/tour_occ_ninat/default/table?lang=en
day visitors, park entrances, cruise arrivals etc.	Average length of stay: 2017: 7.3 2018: 7.1 2019: 7 Total cruise passengers: 2017:670,135 2018:632,739 2019:765,696	https://www.mta.com.mt/en/file.aspx?f=34248
% tourism growth over the last 10 years	The number of tourists doubled from 2009 (1.33 million) to 2019 (2.75 million)	https://www.independent.com.mt/articles/2020-02-05/local-news/Growth-of-one-million-tourists-when-compared-to-2015-Tourism-Minister-6736219313

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available

The tourism intensity (in 2019) was 94.

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)

The tourism density (in 2019) was 1503.

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

Malta is a small, densely populated island and very popular tourism destination as well as one of the few destinations welcoming tourists all year long. Besides the inherently limited space on the islands, the main challenges are linked to energy and water consumption, waste management as well as traffic congestion.

2. Tourism development

Tourism Development
How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic? Short description of recent development
Tourism in Malta "is like tourism on steroids" (Malta Tourism Authority representatives, 07.2021). Over the last 10 years, there has been a strong, steady tourism growth which only stopped because of the Covid-19 pandemic. The growth pattern would have mostly likely continued without the pandemic. While several years might be needed to recover, tourism Maltese authorities and other key public actors are now facing the dilemma of whether to return to a pre-Covid situation. "Do we want tourism for development or development for tourism?" A shift towards more a sustainable growth and practices is envisaged (Malta Tourism Authority representatives, 07.2021).
Visitor segments (Share and/or numbers)
What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.
In 2019, Malta received 2.7 million tourists. The main purpose of visit is holiday, sun and cultural activities being the prime motivation of nearly half of the visitors. Although this share has been slightly decreasing (-1,1% between 2017 and 2019), visiting family/friends is the second reason of visit. Third, business and professional trips have been on the rise between 2017 and 2019 (+4,9%)[16]. Besides sun and culture, Malta also attracts visitors interested in water activities (e.g. scuba diving), wellness and education (English learning as a foreign language) (Malta Tourism Authority representatives, 07.2021). Although rather balanced, the number of female tourists increased to a greater extent (+6,7% between 2017 and 2019) compared to male tourists (+5,2%) over the same period. Tourists mostly belong to the 25-44 age group, followed by the 45-64 age group. While still inferior in absolute numbers, the number of younger tourists (age group 0-24) has been steadily increasing (+14.6% between 2017 and 2019)[17]. This is reportedly linked to the increased use of social media (Malta Tourism Authority representatives, 07.2021). Due to historical ties and possibly language reasons, the largest share of tourists comes from the United Kingdom (649,624 tourists in 2019). The second place goes to Italian visitors (392,955, in 2019), followed by French tourists (239,140, in 2019). Although they do represent a comparatively small share of tourists (in absolute numbers), the highest increase of tourists is from Hungary (+34,2% between 2017 and 2019). Overall, most tourists to Malta are from the EU market. The availability of direct flights from neighbouring countries also increases the volume for short haul markets. Outside of the EU and the UK, the US and the Australian markets have been growing. This may be linked to the important Maltese diaspora living in these countries. The eased provision of the dual nationality to children of Maltese emigrants also fostered the attractiveness of the country. Lastly,

[16] https://www.mta.com.mt/en/file.aspx?f=34248
[17] https://www.mta.com.mt/en/file.aspx?f=34248

initial steps have been undertaken to penetrate the Chinese market. However, this would reportedly need at least 15 years for these efforts to work (Malta Tourism Authority representatives, 07.2021).

Temporal distribution/seasonality

When are the temporal peaks (if any)? How is the seasonal distribution of visitors?
Explanation and numbers (if available)

Malta is one of the very few destinations which "does not close" (Malta Tourism Authority representatives, 07.2021), i.e. **tourist inflows are all year long**. An analysis of inbound tourism data over the last sixty years revealed that tourism seasonality did not evolve, the visitor distribution remains the same throughout the year with a peak over the summer period (July to mid-August). What did change however is the overall volume of tourists. **A critical mass of tourists is still achieved, outside of the peak season, allowing touristic activities to keep on functioning all year long.**
As such, in Malta, overtourism is not about the sheer volume of tourists during the peak season but rather about the temporal spread over the year. There is no touristic season per se as tourists keep coming in throughout the year.

Due to the **insular character of the country**, incoming tourists are mostly traveling by air (98,1% in 2019, compared to 1,9% traveling by sea[18]). The seasonal distribution is therefore entirely dependent on airlines. This accordingly impacts the destination's capacity to manage seasonal growth (Malta Tourism Authority representatives, 07.2021).

Spatial distribution

What are the tourism hotspots? How is the spatial distribution of visitors?
Explanation and numbers (if available)

The types of tourism **hotspots are very diverse on the Islands**. They range from prehistoric temples (e.g Hagar Qim and Mnajdra), urban sites such as Valletta's St. John's Cathedral and picturesque fishing villages, natural landscapes, beaches and viewpoints (e.g the Azure Window, Golden Bay, the Blue Lagoon Bay, Mellieha Bay). The capital city of Valletta has been attracting an increasing number of tourists as a result of investments made by public authorities to develop touristic activities (Malta Tourism Authority representatives, 07.2021).
Tourism has largely spread over the islands. Social media and a generalized access to the Internet have contributed to making relatively unknown areas extremely popular. The development of Airbnb has similarly contributed to the territorial spread of tourism, even to residential areas (Malta Tourism Authority representatives, 07.2021).

[18] https://www.mta.com.mt/en/file.aspx?f=34248

3. Tourism management in the destination

Organisation of tourism & stakeholders

How is tourism in the destination organised? Which authorities are responsible for tourism?
Who are the central stakeholders involved in tourism management and development? Is there a monopolisation/dominance of certain businesses? What are the responsibilities of the different stakeholders?

Malta has a Ministry for Tourism and Consumer Protection, which almost entirely deals with tourism issues. The Malta Tourism Authority (MTA), founded in 1999, aims at advancing the economic and social activity of tourism in the national interest, by working with all stakeholders to develop a sustainable industry for current and future generations. The MTA has a diverse role, but one which in essence is all about creating and fostering relationships. The MTA is the tourism industry's regulator and motivator, its business partner, the country's brand promoter, and is here to form, maintain and manage meaningful partnerships with all tourism stakeholders. Primarily, this means attracting visitors to the Islands, but also working closely alongside the private sector partners. Importantly, the MTA is also here to help strengthen the industry's human resources, ensure the highest standards and quality of the Islands' tourism product, and foster relations with local and international media[19].
Given the importance of tourism in Malta's economy, most other Ministries are also dealing with tourism related issues (e.g. transports, education...etc.). Lobby groups are also quite influential, e.g. the Malta Hotel Association, the English Language School, the Gozo Tourism Association...etc (Malta Tourism Authority representatives, 07.2021).

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

The MTA is currently finalising the "Malta Tourism Strategy 2021-2030"[20]. The strategy is steered by the Ministry for Tourism and based on two critical pillars for the tourism sector to move forward:
1. A recovery path following the disruptions imposed by COVID-19; and
2. A way forward for the sector with revamped guiding principles to reflect a new framework.

A recurring theme in this strategy is an emphasis of quantity versus quality. The vision of the Ministry is to attract tourists offering a higher economic value who will, in turn, leave a better financial return in Malta. This profile of tourist would only be attracted to Malta if the entire quality of the tourism value chain is improved and the strategy addresses the service delivery, human resources requirements, accommodation mix and connectivity while addressing socio-economic factors such as sustainable development and climate change.

For the years 2021 to 2030, the Ministry shortlisted three strategic development options for the tourism sector:

- Recover from the losses incurred as a result of COVID-19 while still being feasible and sustainable.
- Rethink and reevaluate previous ways of working, with a view to stakeholders being more socially and economically conscious.

[19] https://www.mta.com.mt/en/role-and-functions
[20] https://issuu.com/visitmalta/docs/mta_presentations_-_leslie?fr=sYmE4MTI4NTQ2MTQ

- Revitalise processes aimed at giving new life to Maltese tourism with the intention of elevating it to a high socio-economic level based on stronger principles of sustainability.

At the time of the interview (July 2021) the Strategy was not yet approved by the Cabinet. The vote is scheduled for the end of the summer 2021 (Malta Tourism Authority representatives, 07.2021).

Additional comments:

Are there any other important facts to understand the tourism management in the destination?

One of the unique aspects about tourism growth and tourism management in Malta is linked to the dependence on airlines. This hinders the ability of Maltese authorities to better manage tourism flows.

Moreover, as tourism has been the financial driver over a decade, it is hard to shift mindsets, and convince, e.g. politicians that not all tourism is good. Malta is also a cash rich economy which attracts investors looking into land property investments. As a result, this increases the pressure on and value of available land on the islands (Malta Tourism Authority representatives, 07.2021).

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers

What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)

Until 2006, tourism on Malta was principally driven by large tour operators. Since then, this model has largely shrunk as low-cost carrier business models (e.g. Ryanair) has soared. Tourism is volume quickly arose as a result. Thanks to low-cost airlines, Malta could reach the necessary critical mass of tourists all year long ("the machine was working on its own"). Each year brought a new record of tourists visits and the suddenly skyrocketing profitability of tourism activities led to increased investments destined to fostering the development of the sector (Malta Tourism Authority representatives, 07.2021).

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders?

Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

The Maltese population is aware of the benefits of tourism. Even as the volumes kept on rising, the population still considered the advantages of tourism as exceeding the disadvantages. Overtourism cannot be examined in isolation. The rise of tourism had a wide array of impacts. As the economy was expanding, large numbers of foreign workers arrived to palliate the substantial need for workforce (e.g. in the construction sector). First, immigrants from the Balkans arrived followed by non-European citizens (e.g. from India, Philippines). A huge volume of humanity settling in Malta accompanied the arrival of tourists. As a result, several consequences could be felt. For example, rental costs started to increase and an increased pressure was put on transport and traffic management.

A lot of people thought that tourism growth in Malta was endless. This idealised idea or dream of an endless tourism growth was also echoed by the World Trade Organisation as indicates the interviewees (Malta Tourism Authority representatives, 07.2021).

Stakeholders affected
Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)
As mentioned, the increasing number of tourists had an impact on the local population as touristic areas expanded to residential areas. Moreover, the building of infrastructure for tourism purposes (e.g. small holidays flats) impacted the rental market and the ability of the local population to find suitable flats liveable on a yearly basis (Malta Tourism Authority representatives, 07.2021).
Capacities & bottlenecks
What are the central capacity challenges and main bottlenecks?
Limited geographic space is one of the most challenging aspects linked to tourism growth and management. Malta is a country with the population density of a city. In relation, infrastructure limitations are also high, for instance in terms of power generation as 100% of the fuel is imported (Malta is now moving towards gas). Fifteen percent of the power is dedicated to seawater desalination as fresh water is scarce. Sewage and waste treatment is another key challenge. Road networks have been developed and, as a result, the number of cars increased, in particular since the bus networks are very inefficient. This creates **issues in terms of pollution and impacts the quality of life**. Overall, Malta is a small place where negative impacts are felt very quickly. As such, Malta can be seen in many regards as an experimentation ground (Malta Tourism Authority representatives, 07.2021).

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism
What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved? **What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?**
While the volumes of tourists kept rising, this tourism growth was not considered as an issue and could have continued if the Covid-19 pandemic did not happen. "There were no overwhelming complains about overtourism but the party was cut short by Covid". However, the pandemic is considered as a catalyst for change, a momentum on which to capitalize, as seen in the principles and engagements enshrined in the strategy for 2021-2030 (Malta Tourism Authority representatives, 07.2021).
Innovative aspects
What are unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?
The strategy includes key performance indicators, which should enable a more informed decision-making. The strategy took into consideration practices and ideas developed and implemented in other similar regions/islands (e.g. Baleares, Croatia). Looking at other ways to manage tourism flows is important, it requires a change of mindset to go beyond the introspective way of thinking often linked to the insularity. The idea of creating a "Malta Tourism Observatory" is also being discussed. This observatory would be funded by the MTA and involve representatives from all types of tourism stakeholders operating in Malta (Malta Tourism Authority representatives, 07.2021).

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

The set of milestones and KPIs included in the strategy will provide on up-to-date status on the situation. The Malta Tourism Observatory would be supervising the monitoring in order to ensure the impartiality of the process (Malta Tourism Authority representatives, 07.2021).

Challenges & success factors

What were the central challenges when planning, developing, and implementing the measures?
What were the central success factors when planning, developing, and implementing the measures?

The uninterrupted growth of the tourism in Malta, the associated economic benefits only stopped because of the pandemic. An entire system abruptly stopped. While now the situation, arguably, is returning to a relative normality, **the tourism industry as well as politicians are eager to return to a pre-Covid boom.** It is difficult to explain why discipline and control over tourism growth is necessary, especially to stakeholders which have benefited so much and for so long from the frenzy expansion of tourism activities.

Furthermore, **the sanitary crisis will leave marks in many regards and the way out is still unpredictable**. The world's economy has been affected and it will require some time to recover. Also, restrictions are still being applied, e.g. Russian tourists are not allowed to travel to Malta. All in all, the short-term and maybe medium-term future of tourism is very difficult to foresee (Malta Tourism Authority representatives, 07.2021).

Transferability to other destinations with similar characteristics

What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?

It is important to communicate with all stakeholders (tourism industry representatives, politicians...etc.) in order to make sure that people understand the reasons and needs for putting a brake on an uncontrolled tourism growth. **Focusing on and sharing experiences addressing problems can be useful when looking at similar territories** (Malta Tourism Authority representatives, 07.2021)**.**

6. Monitoring/indicators

Monitoring of overtourism situation
Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?
For decades, Malta has been gathering qualitative and quantitative tourism related data. The MTA is for instance carrying out and analyzing several surveys, e.g. tourists expenditure, satisfaction surveys. Maltese authorities are also measuring the impact of tourism using the tourism satellite account (which adheres to the European system of accounts). Other sources of information are also tapped on, such as for instance the hotels' performance and satisfaction rates. The MTA is also considering looking into big data to refine the information on tourism spatial distribution (based on mobile phones tracking). The MTA includes an inhouse research team of 7 people. This team has been analyzing, comparing and publishing data and reports on the situation and evolution of tourism in Malta. This inhouse knowledge and expertise is essential for the understanding and monitoring of the tourism situation and development (Malta Tourism Authority representatives, 07.2021).
Indicators used
What are indicators used for the observation? Which indicators have proven successful?
In line with the information previously indicated information, the interviewee emphasized on the fact that a mix of quantitative and qualitative indicators is necessary to obtain a more comprehensive of the phenomena and tourism developments.
Specific indicators
Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?
As described previously, the indicators used for the analysis of the tourism situation is made a mix of qualitative and quantitative indicators gathered through the tourism satellite account, numbers provided by actors of the tourism economy and satisfaction rates. These indicators are deemed suitable to assess the tourism situation (Malta Tourism Authority representatives, 07.2021).
Challenges and success factors of the monitoring
What are the challenges and success factors of the monitoring system/the indicators?
The research team working at the MTA has a long-standing experience and built an expertise which is acknowledged. The data and analyses presented are reliable and respected. Researcher have to reflect the reality of the situation on the ground, analyzing a wide array of different data, and there is always room for improvement and interpretation. Moreover, there may be a gap between the set up or update of monitoring systems and instruments and the reality on the ground (Malta Tourism Authority representatives, 07.2021).

7. Management of the pandemic

Changes due to the pandemic
What has changed due to the pandemic? How has the pandemic influenced the tourism development? **How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?**
"The pandemic brought the party to an end; the pain was that we went from full to empty." Tourism's impacts are extremely ubiquitous and so are the consequences linked to the stop of tourism activities. Short-term compensatory payments were made available to employees of the tourism sector, a substantial number of foreign employees (turned unemployed) also left the country. The Strategy came exactly at the right time. The role of tourism in Malta is pivotal to the economy and this will likely not change. However, the Strategy may contribute to take Malta onto another tourism development direction (Malta Tourism Authority representatives, 07.2021).
Additional comments Are there other important aspects regarding the pandemic?
The constant and continuing uncertainty. (Malta Tourism Authority representatives, 07.2021).

8. Outlook & Additional Comments

Expected future changes
What are the expected changes in the future tourism development? What are the plans for post-covid tourism?
As embedded in the strategy, Maltese authorities are intended to put a greater focus on quality. Indeed, the satisfaction rate has seen a slow decline over the last few years and the aim is to address this issue. Malta cannot compete in terms of price but intends to provide tourists "more value for money". The interviewees insisted on differentiating quality and luxury as quality infers improvements to a wide range of issues while ensuring accessibility to the many (Malta Tourism Authority representatives, 07.2021).
Risks and uncertainties
What are the most relevant risks and uncertainties currently?
Climate change and its impacts are risks which need to be better addressed. Water, energy, pollution, environmental degradation… man-made activities, especially linked to tourism, which are jeopardizing the future are countless. (Malta Tourism Authority representatives, 07.2021).
General recommendations
What are general recommendations that you'd like to share for destinations with similar challenges?
"We need to learn more from each other". Discussing and sharing experience with regards to best practices and innovative ideas is necessary but not sufficient. "We need to be discussing problems as well" (Malta Tourism Authority representatives, 07.2021).

List of references and interviews

Interviews: two representatives from the Malta Tourism Authority

References:

National Tourism Policy (2015-2020) https://tourism.gov.mt/en/Documents/FINALBOOKLETexport9.pdf

Malta Tourism Strategy 2021-2030 https://issuu.com/visitmalta/docs/maltatourismstrategy_2030_v7

Malta doubles its tourism intake over a span of ten years (https://www.independent.com.mt/articles/2020-02-05/local-news/Growth-of-one-million-tourists-when-compared-to-2015-Tourism-Minister-6736219313)

Tourism in Malta Facts and Figures 2019 https://www.mta.com.mt/en/file.aspx?f=32328

Burren and Cliffs of Moher UNESCO Global Geopark

1. General Information about the destination

Case study item	Information	Data source
Destination name	Burren and Cliffs of Moher UNESCO Global Geopark	https://www.burrengeopark.ie/
Destination type	Rural	
NUTS 3 Level	Mid-West Region (IE051)	NUTS2016
Country	Ireland	
Region	Southern (IE05)	NUTS2 at NUTS2016
Tourist area size (km2)	530 km²	https://www.burrengeopark.ie/
Population		
inhabitants in destination	The Geopark contains 14 inhabited areas totalling about 6 648 inhabitants (Ballyvaughan, Corofin, Ennistymon, Gort, Kilfenora, Lahinch, Lisdoonvarna).	https://data.cso.ie/
inhabitants in tourist centre/core area	the key point of interest: No inhabitants - the Cliffs Centre, - Doolin Pier - Aillwee Cave - Caherconnell - Doolin cave	
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	2019: 4,2% total contribution of Travel & Tourism to GDP 2019: 6,0% of total employment 2020: 1,2% total contribution of Travel & Tourism to GDP 2020: 6,0% of total employment	**https://wttc.org/Research/Economic-Impact**
Importance of tourism in destination (GDP, employees)		

<table>
<tr><td>tourist arrivals in destination (2015-2019)</td><td>No data available for the destination perimeter</td><td></td></tr>
<tr><td>overnight stays in destination (2015-2019)</td><td>No data available for the destination perimeter</td><td></td></tr>
<tr><td>day visitors, park entrances, cruise arrivals etc.</td><td>
<table>
<tr><th></th><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr>
<tr><td>Cliffs of Moher</td><td>1,251,574</td><td>1,427,166</td><td>1,531,824</td><td>1,580,010</td><td>1,605,131</td></tr>
<tr><td>Doolin Pier April to October inclusive</td><td>62,000 (estimate only)</td><td>131,000</td><td>128,000</td><td>209,000</td><td>223,000</td></tr>
<tr><td>Aillwee Cave</td><td>143,006</td><td>143,503</td><td>149,706</td><td>137,606</td><td>119,157</td></tr>
<tr><td>Caherconnell</td><td>29,000</td><td>33,500</td><td>42,500</td><td>38,000</td><td>37,500</td></tr>
<tr><td>Doolin Cave</td><td>30,785</td><td>31,213</td><td>32,484</td><td>35,084</td><td>34,653</td></tr>
</table>
</td><td>Manager of the Burren and Cliffs of Moher UNESCO Global Geopark</td></tr>
<tr><td>% tourism growth over the last 10 years</td><td>The overall growth has been exponential in the last 10 years.</td><td></td></tr>
</table>

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available

The data is not available to calculate this indicator.

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)

The data is not available to calculate this indicator.

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

Key challenges tied to the incoming tourists are related to **the concentration of tourists among selected points of interest**, necessitating some dispersal and tighter traffic and visitor management. The growth of tourists in the last decade has been substantial and has the potential to disturb the ecosystem and disrupt local community life. Dispersal is not the only solution as approximately **60% of the region is designated Special Areas of Conservation with associated legislation and development for visitor absorption is restricted**. The majority of the other visitor centres and attractions can absorb more visitors. In the geographic areas that can absorb increased visitor numbers, **further planning and investment is required** for physical infrastructure such as cycling lanes, park and ride systems, public transport, public toilets, and for visitor management through education/awareness campaigns and digital booking systems. (County Clare, Representative of the Cliffs of Moher Visitor Experience & Representative of the Burren and Cliffs of Moher UNESCO Global Geopark, 2021)

Additional general remarks

UNESCO Global Geoparks are internationally recognised places with unique geology, landscapes, history and culture. Geoparks are managed with a focus on education, conservation, sustainable tourism and community engagement. Geopark status is a UNESCO designation and is revalidated every 4 years (Burren and Cliffs of Moher UNESCO Global Geopark, 2021). The Burren and Cliffs of Moher UNESCO Global Geopark is managed by Clare County Council with support from the Geological Survey of Ireland, working in partnerships with local communities, tourism businesses and organisations and government agencies (Burren and Cliffs of Moher UNESCO Global Geopark, 2021). Recently, a new tourism department has been set up within the Local Authority and a number of strategies are developed to address the previously cited issues (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience).

2. Tourism development

Tourism Development

How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic?
Short description of recent development

The site's **unique landscapes and its protected areas attracts tourist since the 1970's and** there is a long tradition of educational tourism from universities in botany, geology, archaeology etc., already implying a need of balance between tourism and conservation. Shannon International Airport lead to easy access to the destination and naturally lead to longer stays, the destination benefitted from the overnight tourism on arrival and before departure. However, a decrease in air access from Shannon International Airport and change in type of tourism was observed since the 2000s when the **development of motorways made the site easily accessible for day trips from cities** such as Dublin, Galway etc. The destination is in between two cities in neighbouring counties with a range of accommodation options and night-time economy, it has been highlighted that Clare County does not have the range of accommodation or capacity for visitors to the area. The combined effect led to shorter stays and increased day trips. **Private coach companies developed cheap day trip experiences people were able to come more easily by road which brought a lot of traffic and parking issues at peak times**. Failte Ireland launched the Wild Atlantic Way (WAW) in 2014 and this quickly became a popular visitor experience with an international profile. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

The Cliffs of Moher visitors' numbers increased, and it became the **second most visited fee-paying attraction of Ireland,** making it also a point of international tourism interest. The exponential increase in tourism to the WAW and Cliffs has had an impact on the region as a whole. The Local Authority, in partnership with tourism and conservation agencies, set up a visitor management and environmental protection programme in 2007, called Burren Connect, and this push for a sustainable tourism model was further enhanced by EU funding under the LIFE programme from 2012 to 2017. With the application for the Geopark label in the 2000's and the **UNESCO Global Geopark designation in 2015,** the importance of developing a sustainable tourism grew further. Some enhancement of infrastructure, a network of tourism businesses committed to sustainability, a Code of Practice in Sustainable Tourism, a site monitoring system and a focus on developing **the Geopark as a sustainable destination** with a broader range of ecotourism experiences emerged from this period of investment. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Visitor segments (Share and/or numbers)

What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.

The visitors are mostly international tourists (around 59% according to Fáilte Ireland), here for a leisure holiday or visitor friends and relatives. The visitors are also mainly couples between 25 and 35 years old. Pre-pandemic day trips to one or two identified locations in the area were characteristic. **This form of tourism however does not generate revenue in the area as the average spend by international overnight visitors in the county is the second lowest in Ireland** due to the facts outlined above. (Fáilte Ireland, 2020)
The pandemic brought more domestic tourist, coming to explore and tending to visit more than the usual popular attractions than before. Their expectations also raised towards more local products, activities and they are willing to pay for it. This is of huge support for local enterprises and give them the confidence to develop and invest in such things. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Temporal distribution/seasonality

When are the temporal peaks (if any)? How is the seasonal distribution of visitors? Explanation and numbers (if available)

The temporal peak is in summer during the July/August months
The temporal distribution wished for would be between May and October

Spatial distribution

What are the tourism hotspots? How is the spatial distribution of visitors? Explanation and numbers (if available)

The County Clare attracts around 1 million visitors per year, 59% of them being international tourists. The main tourism hotspot is at the Cliffs of Moher. They are the second top fee-paying attraction of Ireland. They attracted 1,6 million visitors in 2018, representing a +4% increase compared to the previous year. The increase of visitors at the Cliffs of Moher has been steady since 2015 with an increase of +14% between 2015 and 2016. The following year (2017) this number increase of 7% again. High number of these visitors are day trip which brings a lot of traffic in the area. (Fáilte Ireland, 2020)
Post-pandemic the spatial distribution has changed and the Cliffs of Moher has not reached capacity but capacity issues have emerged in other areas, beaches and in Doolin Pier where there is access to the Aran Islands.
Most of the other visitor centres in the Geopark have the capacity to absorb increased visitor numbers. See next item. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Additional tourism figures

Are there any other important numbers/aspects to understand the tourism situation in the destination?

Aillwee Cave, Caherconnell and Doolin Cave and other visitor experiences and attractions have the capacity to increase visitor numbers across the day months and year. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

AILLWEE CAVE	2015	2016	2017	2018	2019
Annual Visitor Numbers	143,006	143,503	149,706	137,606	119,157
Opening times (eg. March – October inclusive)	January to December incl.	January to December incl.	January to December incl.	January to December incl.	January to December incl.
Peak months	June, July, August, weekends in December.	June, July, August, weekends in December.	June, July, August, weekends in December.	June, July, August, weekends in December	June, July, August, weekends in December.
At capacity	as above	as above	as above	as above	as above
Under capacity	Jan – May; Sept - November	Jan – May; Sept - November	Jan -May; Sept - November	Jan -May; Sept - November	Jan – May; Sept - November
Over capacity	never	never	never	never	never

CAHERCONNELL	2015	2016	2017	2018	2019
Annual Visitor Numbers	29k	33.5k	42.5k	38k	37.5k
Opening times (eg. March – October inclusive)	March-October inclusive	March-October inclusive	March-October inclusive	March-October inclusive	March-October inclusive
Peak months	July/August	July/August	July/August	July/August	July/August
At capacity	n/a	n/a	n/a	n/a	n/a
Under capacity	All year	All year	All year	All year	All year
Over capacity	n/a	n/a	n/a	n/a	n/a

DOOLIN CAVE	2015	2016	2017	2018	2019
Annual Visitor Numbers	30,785	31,213	32,484	35,084	34,653
Opening times (eg. March – October inclusive)	Feb- Nov.	Feb-Nov.	Feb. – Nov.	Feb.- Dec.	All year
Peak months	July/Aug	July/Aug	July/Aug	July/Aug	July/Aug
At capacity	July/Aug, week-days	July/Aug , week days	July/Aug ,week days	July/Aug , week days	July/Aug, week days
Under capacity	rest of year	rest of year	rest of year	rest of year	rest of year
Over capacity	w/ends July/August	w/ends July/August	w/ends July/August	w/ends July/August	w/ends July/August

3. Tourism management in the destination

Organisation of tourism & stakeholders
How is tourism in the destination organised? Which authorities are responsible for tourism? Who are the central stakeholders involved in tourism management and development? Is there a monopolisation/dominance of certain businesses? What are the responsibilities of the different stakeholders?
Both the Geopark and the Cliffs of Moher Visitor Experience are managed by the Local Authority, Clare County Council. **The Clare County Council** has recently created a new Tourism Department and has just launched a County Tourism Strategy and Action Plan. This plan aims to place sustainable tourism at its core and will be supported by the Global Sustainable Tourism Councils Destination Criteria. **Failte Ireland** (national domestic tourism development agency) provides national policy, regional tourism experiences development, funding programmes and training to tourism enterprises and has funded the development of a Visitor Experience Development Plan (VEDP) for the Burren and Cliffs of Moher. **The Burren Ecotourism Network** is an association of local tourism enterprises who have undertaken the Geopark Code of Practice in Sustainable Tourism and is acting as a lobby group, voicing the needs of the local enterprises and helping raise awareness both for professionals and tourists on commercial and conservation issues. **North Clare Strategic Planning Group** is a recently formed community forum which represents the interest of communities in the destination and is feeding into the various tourism strategies being developed at the moment. The Cliffs of Moher Visitor Experience, which is by far the most dominant tourism business in the Geopark, is currently developing a strategic plan in conjunction with Failte Ireland that incorporates not only site and experience enhancement for the visitor but also visitor management strategies that incorporate the geographic areas and communities most impacted by the tourism numbers to the site. There is also a Strategic Plan in development for Doolin village and its pier which provides boat services to the Aran Islands, and sea tours of the Cliffs of Moher. **The current Covid and post pandemic situation is deemed as an opportunity for the continued development of sustainable tourism** as wished by the Geopark. Indeed, the recent arrival of the Irish Green Party in the government coalition, especially as Ministers of the Department for Transport and the Department for Tourism, will enhance the opportunity to get funding for transport and traffic management initiatives, such as 'Park and Ride' for example. The development and increased **adopting of technology solutions including digital booking systems and site monitoring systems are becoming key to visitor management strategies** to influence consumer behaviour. Finally, and at the root of such changes, there is **a broader understanding and appreciation of sustainable tourism in the population**. People now understand the importance of mindful visiting and are ready to make some effort towards it. Active conservation of the destination's landscape, nature and culture can be considered as a Unique Selling Proposition today.

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

The County Council is the main planning, development and recently, tourism, organisation in the county of Clare. All tourism infrastructural planning must adhere to the objectives and legislative requirements as listed in the County Development Plan, which is a statutory instrument. Burren and Cliffs of Moher Geopark is monitored by the county's strategic documentation. This strategy is anchored in the Country Clare Tourism Strategy 2030, the County Clare Tourism Action Plan 2021-2023, and the County Development Plan 2017-2023.

Failte Ireland has produced a series of Visitor Experience Development Plans (VEDP) for various regions along the Wild Atlantic Way, including the Burren and Cliffs of Moher.

The objective followed by these strategic documents is mainly to extend the stay of visitors and maintain them in the area of the Geopark to increase the revenue generated. There are also environmental considerations and indicators attached to these plans.

Concrete actions for the Burren and Cliffs of Moher area are described in the VEDP 2020:

1. Develop and implement an Integrated Traffic and Transport Strategy for the Burren and Cliffs of Moher.
2. Upgrade 2km of the Cliff Walk (1km either side of the Cliffs of Moher Visitor Centre) through a partnership with landowners and National Parks to develop a management plan and future funding model that supports the land owners and allows for reinvestment and a sustainable walking infrastructure.
3. Develop a winter Burren Music, Dance & Story Trail connecting visitors with music, dance, stories and traditions of the place – people and villages.
4. Create a 'Wellness the Wild Atlantic Way' programme and dedicated section on the Fáilte Ireland website that looks at the broader definition of 'wellness' including connection, time in nature, and the need to sleep well, as well as the traditional, relaxation, healthy food and exercise elements.
5. Develop the Burren Discovery Trail to assist in dispersing independent travellers eastward to the Burren Lowlands and provide interpretive content to interpret the landscape and reveal the underlying stories.
6. Support farmers keen to diversify their business to include tourism with a business support programme and guidance on insurance and planning requirements and investment in sustainable tourism experiences.
7. Be a Custodian for a day – join the Geopark to experience what is involved in managing a Global Geopark.
8. Facilitate workshop(s) to assist in further developing and promoting a series of cultural events that encourage year-round visitation through dedicated timely funding.
9. Encourage the establishment of new eco-friendly, responsible adventure experiences such as new cycling experiences along the green roads including mountain-biking and the 'edge' experience.

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers

What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)

The fact that 90% of all air travel to Ireland arrives in Dublin and sea access is in the east of the country and air carriers discontinuing arrivals to Shannon Airport. The increased accessibility by road to the area, coupled with the development of the offer from private coach companies in Dublin, Galway etc drove the growth of coach traffic to an intense, highly seasonal day-trip tourism. The peak times for traffic are between 11am and 5pm.
The effective marketing of the Wild Atlantic Way coastal route and the Cliffs of Moher Visitor Experience iconic natural attraction. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders?
Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

Pre-pandemic, the most prominent impacts were a high **coach traffic** density in high season with lack in infrastructure, especially in terms of parking and toilets.
The **environmental impact is also real with littering and environmental "destructions" happening (flower and stone picking in protected areas).** The visitor experience can also be damaged by the greater number of visitors, especially for the destination's target groups that are "Great Escapers" for example.
A **negative reaction in the community to coach tourism from traffic congestion issues and a very low economic return.** A lack of parking, refuse and toilet capacity at increasingly popular natural sites in SAC's, such as the Burren National Park, particularly post pandemic, is also causing congestion and sanitary issues that cause concern within local communities. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

Stakeholders mainly affected by unbalanced are the local population (see above) and the visitors of popular locations such as the Cliffs of Moher. The strength of the Geopark being landscape, crowed natural sites lessen the visitor experience.

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

Central capacity challenges appear mostly around visitor numbers, traffic management, infrastructure and public amenities. Traffic overload due to tourism is especially seen on the roads along the coast, on the main motorway junctions towards cities, and around the Burren National Park and at the popular walking trail heads. Boiled down the most needed infrastructures are better public transport options, park and ride, some increased parking places, site management, refuse collection and toilets. Pre pandemic, these services were concentrated at popular sites such as the Cliffs of Moher and other points of interest, however, the growth of domestic tourism due to the "staycation" (vacation at home due to the pandemic) broadened the perimeter where such amenities are needed. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

The County Council/Cliffs of Moher are **in the process of developing a visitor experience and management strategy** for the Cliffs of Moher and surrounding hinterland in consultation with local community groups and were the initiator of this measure.
The County Council are in the process of developing a visitor management plan for Doolin Pier and Village in consultation with the local community and businesses.
Initial meetings between the County Council and the National Parks and Wildlife Service (NPWS), the managing authority for the Burren National Park, have been undertaken to progress a visitor management plan.
A Traffic Management Plan for the Geopark is underway and is currently in the data collection and observation phase. This is an initiative of the VEDP and includes Clare County Council engineers, visitor centre managers and community interests.
A number of digital solutions have also been developed… please see section below.

Innovative aspects

What are unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

Online booking and pre-booking solutions have been implemented and fast-tracked with the pandemic which helps to monitor visitors flows.
Measures were also taken at the Cliffs of Moher site to better manage couches arrivals:

- Dynamic prices were implemented with reduced prices out of peak hours,
- Package bookings and joint tickets to other fee-paying attractions were made possible
- Mandatory overnight offering in the package in the Co. Clare.
- No license for day tour operator is given unless they engaged in the two previously cited measures.
- Increased opening hours
- Capping of number of visitors by setting capacity.
- Marketing to influence customer behaviour for longer stays, purchasing local and supporting the local economy.
- Group tour contracts including cancellation policies.

These measures have proven to be efficient as a 20% shift to off-peak visits have been observed in 2 years. It is therefore considered to apply them to other sites. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

An online Guide Training Programme is under development, this focuses on awareness raising, Leave no Trace and sustainable tourism ethos for local and incoming guides to pass on to their customers.
Data collection, environmental impact and visitor observation studies are being undertaken at a number of popular sites (Fanore Dunes and Poulnabrone) in the Geopark and are recorded using the online monitoring system.
A Geopark Code of Practice in Sustainable Tourism was developed and is managed and funded by the Geopark. This is an online Code that the Buren Ecotourism Network agrees to adhere to and encourages a wide range of sustainable tourism practices.
The Burren Ecotourism Network have launched a number of on-line videos promoting their conservation values, their adoption of the Geopark Code of Practice and Leave No Trace. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

The impact of measures taken by the Cliffs of Moher are deemed to be good as a 20% shift to off-peak visits have been observed in 2 years. The reinforced implementation of booking systems was also stressed as particularly helpful to monitor flows by the interviewees but also allowing to inform and educate visitors ahead of their visits. This is also used to manage capacity and to disperse numbers throughout the day.

Many of the strategies are under development and the indicators have yet to be agreed. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Challenges & success factors

What were the central challenges when planning, developing, and implementing the measures?
What were the central success factors when planning, developing, and implementing the measures?

The EU Life project, with its emphasis on tourism and conservation, and the partnership of tourism and conservation agencies and local businesses and communities, enabled regular dialog between key stakeholders on the conservation of the area and the necessity to manage tourism. The LIFE project led to the development of **the Geopark Code of Practice and facilitated much engagement and discussion between local tourism enterprises**. (Interview,)
The criteria for the UNESCO Global Geopark designation also emphasise sustainable development in tourism. The increasing awareness on Climate Change and Global Warming and the increase of "staycations" due to the pandemic also helped focus the County Council on the increasing need to manage tourism. Local businesses can only do so much, the actual infrastructural and visitor management measures need to come from national government policy and funding and local government implementation. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Having the local community on board engaging in sustainable tourism is a factor of success, collaboration and education seem to be key to develop sustainable tourism. A challenge however is to maintain the interest and continue to bring added value to the members of the community and maintain their engagement in the conservation of site. This is even more true, because such changes imply high investment costs for enterprises and therefore more funding is needed. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience, Burren Ecotourism Network)

The pandemic also revealed the need for tourism to become a more attractive career option. A big challenge that faces tourism businesses now is attracting and retaining staff. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience, Burren Ecotourism Network)

Transferability to other destinations with similar characteristics

What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?

Making a digital transition with an increase use of booking/pre-booking/websites but also e-commerce and product diversification is highly recommended (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience) as it helps making capacity management and time/space restrictions more acceptable. High awareness and education on the conservation and cultural value of the area are also seen as important assets. They help create a sense of community and identity which helps highly to engage people in conservation and collaboration.

National policy on tourism strategy needs to include visitor management and the capacity of the environment and host communities, and to provide funding for local authority implementation of infrastructural and public transport solutions and also funding the development of management capacities.

There needs to **be an overall approach and direct linkages between tourism, sustainable regional development, rural regeneration, climate change, public transport and mobility strategies.**

The interviewee from the BEN also explained **the importance of the creation of tangibles such as a recipe book for example or video content on the area and its people to maintain the interest.**

Additional comments on solution approaches
Are there other important aspects to understand the strategies/measures chosen?

The goal followed by the destination when implementing these solutions is to tackle the saturation of infrastructure due to unbalanced tourism but also to extend the duration of the visitors stay to increase the average spend of visitors.

6. Monitoring/indicators

Monitoring of overtourism situation

Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?

At County level there is a Tourism Taskforce that monitors the County Tourism Strategy. However, it’s current focus is in managing the commercial impacts of the pandemic on tourism.

At the Cliffs of Moher Visitor Experience, besides a monitoring through booking systems, Key Performance Indicators are applied across all departments that underpin sustainable tourism practice.

The Geopark management team are **currently testing a monitoring system** to monitor sites on a number of sites and shall help the management of people and their environmental impacts on site. The system is very flexible and can be adapted to suit each site's environmental and visitor experience issues.

Current planning for the development of County Council managed tourism sites in the county now includes **environmental and visitor management experts on the planning teams**. This provides wider environmental, capacity and visitor impact planning and monitoring from the earliest stages of planning and development.

The planning legislation requires a rigorous Environmental Impact Assessment of proposals located within designated areas.

All Council managed tourism development strategies and projects now undergo a wide community consultation process, where all stakeholders are encouraged and facilitated to engage with and shape the projects. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Indicators used

What are indicators used for the observation? Which indicators have proven successful?

The main indicators currently used are visitor numbers and revenue; mainly commercial.

However, the Burren and Cliffs of Moher VEDP has introduced environmental indicators which include a range of indicators, the VICE model addressing impacts on the Visitor, Industry, Community and Environment. The environmental indicators include biodiversity, population and health, soil, water, air, infrastructure, cultural heritage and landscape. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Specific indicators

Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?

No specific indicator or data is currently collected to observe the seasonality, number of day visitors, private accommodations and the perception of the residents. However, public consultation and a collaboration with all stakeholders involved at strategic level is implemented.

The Burren and Cliffs of Moher VEDP has introduced environmental indicators and the Council is currently researching the adoption of the GSTC Destination Criteria to the County Tourism Strategy. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Challenges and success factors of the monitoring
What are the challenges and success factors of the monitoring system/the indicators?
Community and Environmental monitoring are being introduced and require a change of approach towards tourism development. The change towards digitalisation and effective booking systems and integration is costly, this has been identified at national level and new public funding schemes are being put in place. The pandemic is giving more time and incentives to fast track the change. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)
Additional comments on monitoring/indicators: Are there other important aspects regarding the monitoring?
A shift of mindset is deemed still necessary at national policy level by the interviewees: success shall not only equal high visitors' numbers but higher revenue in the area, for the area, and better organised, funded and implemented visitor and environmental management approaches. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

7. Management of the pandemic

Changes due to the pandemic
What has changed due to the pandemic? How has the pandemic influenced the tourism development? **How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?**
The new draft for strategy of the destination was finalised just before the outbreak of the pandemic (early 2020). However, it was decided to keep the strategy as it is: "The operating context may have changed and the growth that we anticipated short-term may have evaporated, but our values and aspirations have not". **It is too early to say how the pandemic has influenced tourism development and strategy for overtourism as the concept of overtourism is new and is not widely accepted**. Overtourism has not been formally adopted by the national tourism agency as national predictions for visitor numbers was to continue to grow numbers up to 2025 pre pandemic. However, **it is accepted that better visitor management needs to be put in place and investment into developing new visitor attractions and experiences to meet the evolving and more sophisticated demands of visitors** and to absorb growth. Ireland is an island and depends on air access, the airline industry has major challenges and the issue of managing huge volumes will not present until there is recovery of international travel. In 2020 coach tourism was -99% as international tourists were not travelling to Ireland. By August coach/group tour activity was -97%. Some coach companies will not survive the crisis and may result in more car rental for international visitors and those who may not wish to travel as part of a group. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)
Additional comments Are there other important aspects regarding the pandemic?
The cost of doing business had risen, the cost to the consumer has increased, tourism staff have moved to sectors with more steady employment and there are skills shortages. **Tourists are looking for authentic experiences**, want to contribute and support local business, food producers, craft designers and cottage industries and are happy to pay a little more for this. (Fáilte Ireland, 2020 and Representative of the Cliffs of Moher Visitor Experience & Representative of the Burren and Cliffs of Moher UNESCO Global Geopark, 2021)

Tourists are seeking more outdoor experiences, are gravitating towards coastal and lake land areas and forest parks and all types of public amenities. Tourists are open to new types of accommodations e.g. glamping tents and sleeping pods, self-catering. Tourists want to connect with local people and in the main are more educated and want to act responsibly, they are carrying less cash and paying by card. The emerging tourist pace is slower, early indicators are that visitors are staying for longer, planning their visits to guarantee entry and avoid disappointment. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

Building memories in the experience economy is important for family and friends as they emerge after lockdowns. There is limited supply with local food producers as many businesses have limited supply to maintain a life balance, there are opportunities emerging from this demand. Tourism sector will require state support in to 2022. The night-time economy and events and festivals have been badly affected, this has had an equal and knock on our traditional music and dance culture. (Interview; Burren and Cliffs of Moher UNESCO Global Geopark and Cliffs of Moher Visitor Experience)

8. Outlook & Additional Comments

Expected future changes

What are the expected changes in the future tourism development? What are the plans for post-covid tourism?

The strategy elaborated in 2020 is assessed as still relevant though shifting priorities in the action plan. It extend stays, increase domestic tourism and focus on local business and produce, it is unclear when 2019 levels will return and it will be more in the medium term as opposed to short term. (County Clare. 2021)

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

The threats described in the SWOT Analysis coming with Tourism Strategy 2030 concern mostly: bus traffic as the ability to control bus travel patterns is limited; risks concerning biodiversity loss due to the growing number of visitors and natural cliff erosion; recovery of air access, difficulties to create new accesses to local areas; increased costs of doing business; increase in VAT: declining housing stock for tourism workers, skilled staff who have left the industry, lack of public funding and investment. The Brexit is also raised as threat and reasons for uncertainties. (County Clare. 2021)

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

The general recommendation made by the interviewees were to: engage all stakeholders at strategic planning of new tourism product offerings and experiences and in overall management strategies, invest in digitalisation to help measure tourism numbers, demand management, setting limits/capacity on key attractions, dynamic pricing, increased opening hours, invest in education and training of locals, enterprises and visitors in sustainable practices and Leave No Trace, and ensure ongoing collaboration with all stakeholders involved.

Additional comments

Emphasise that at national and local government level there needs to be an overall approach and direct linkages between tourism, sustainable regional development, rural regeneration, climate change, public transport and mobility strategies.

List of references and interviews

Interviewee:

Representative of the Burren Ecotourism Network (on the 18.08.21)
Representative of the Burren and Cliffs of Moher UNESCO Global Geopark (19.08.21)
Representative of the Cliffs of Moher Visitor Experience (19.08.21)

References:

County Clare (2021). Guiding our Way to a Vibrant New Future in Tourism-County Clare Tourism Strategy 2030. https://www.yumpu.com/en/document/read/65325108/county-clare-tourism-strategy-2030
Failte Ireland (2020). The Burren and Cliffs of Moher – Visitor Experience Development Plan. Final Version January 2020
Burren and Cliffs of Moher UNESCO Global Geopark (2012): https://www.burrengeopark.ie/sustainable-tourism/the-organisation/

Parc naturel régional des Monts d’Ardèche

1. General Information about the destination

Case study item	Information	Data source
Destination name	Parc naturel régional des Monts d’Ardèche	https://www.parc-monts-ardeche.fr/
Destination type	Rural	
NUTS 3 Level	FRK22 (139 municipalities) and FRK13(8 municipalities)	NUTS 2021 https://ec.europa.eu/eurostat/web/nuts/background https://www.parc-monts-ardeche.fr/role-et-fonctionnement-du-parc/le-parc-naturel-des-monts-dardeche/historique/#
Country	France	
Region	Auvergne-Rhône-Alpes (FRK)	NUTS 2021 https://ec.europa.eu/eurostat/web/nuts/background
Tourist area size (km2)	2 280 km²	https://www.parc-monts-ardeche.fr/role-et-fonctionnement-du-parc/le-parc-naturel-des-monts-dardeche/historique/#
Population		
inhabitants in destination	The Park contains 147 municipalities adding up to 78,600 inhabitants.	https://www.parc-monts-ardeche.fr/role-et-fonctionnement-du-parc/le-parc-naturel-des-monts-dardeche/historique/#
inhabitants in tourist centre/core area	The Cascade of Beaumicou in the municipality of Vernon (less than 250 inhabitants). The other core areas are natural sites.	
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	2019: 8,5% total contribution of Travel & Tourism to GDP 2019: 9,5% of total employment 2020: 4,7% of the total GDP contribution 2020: 8,9% of total employment	https://wttc.org/Research/Economic-Impact

Importance of tourism in destination (GDP, employees)	Number of employees at Monts d'Ardèche Regional Natural Park in 2020: 39	https://www.parc-monts-ardeche.fr/wp-content/uploads/organigramme-2020.pdf
tourist arrivals in destination (2015-2019)	These numbers cannot be provided (the perimeter of the destination not being a statistical scale) and is not directly assessed by the destination.	
overnight stays in destination (2015-2019)	2016: 6,390,000 (broad based-consumer survey) 2019: 7,807,000 (Flux Vision Tourisme) 2020: 6,837,000 (Flux Vision Tourisme)	Numbers of overnight stays for 2017/2018 are not available as the tool "Flux Vision Tourisme" was not already perfected. Representative of the Monts d'Ardèche Regional Natural Park, 2021
day visitors, park entrances, cruise arrivals etc.	Numbers of crossing at the Ray-Pic (3rd most visited natural site of the Park) 2018: 61,000 2019: 63,000 2020: 91,000	Only one counter installed at the Ray-Pic (3rd most visited natural site of the Park) is relevant for the analysis. The other counters were installed during 2020 so no numbers are available yet. Representative of the Monts d'Ardèche Regional Natural Park, 2021
% tourism growth over the last 10 years	These numbers cannot be provided (the perimeter of the destination not being a statistical scale) and is not directly assessed by the destination.	

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available

7,807,000/78,600=99,3

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)

7,807,000/2,280=3,424

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

Key challenges tied to the incoming tourists are related to the concentration of tourists among selected points of interest, necessitating dispersal. A concentration on the months of July and August is also observed. A fear of a denaturation of the touristic experience was also there. An opinion study made in 2020 showed no signs of such a perception by visitors. Overcrowded sites are difficult to spot through a measure of visitors as sites mostly concerned are small villages were inhabitants are easily overrun by tourists.

Additional general remarks

The Regional Natural Parks were created in 1967 by decree with objective of protecting and promote the broad, inhabited rural spaces of France. All territories with predominantly rural landscapes but fragile cultural, natural and patrimony heritage. The RNP is organized around a collaborative sustainable project based on the protection and promotion of the natural and cultural heritage. The heritage considered for labelling have to include

several remarkable elements recognized at national/international level.
As of August 2021, 56 territories are classified RNP by decree and can use this label.
Each Park project has to engaged around a Charter whose coherence and quality is also determining for the classification as a RNP. This charter is first elaborated by the Region and then revised each 15 years by the “syndicat mixte” (joint association). Accordingly, the classification is put at stake each 15 years.

2. Tourism development

Tourism Development
How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic? **Short description of recent development**
There is an overall accentuation of the concentration of tourists in time and space in this destination (especially sites in the south of the park around mid-july and mid-august). Concentration phenomenon is experienced locally and at different tolerance thresholds depending of the sites’ size and structure. Not all points of interest are at top capacity through the peak season.
Visitor segments (Share and/or numbers)
What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.
According to (Representative of the Monts d’Ardèche Regional Natural Park, Representative of the Ardèche Tourism Development Agency, 2021) usual visitors were used to rural areas and were widely accepted by the population (the tourism economy is really important and visible in this area and therefore well integrated by the inhabitants). However, since the pandemic and the international restrictions the population changed a little with more visitors not used to the norms of rural areas which lead to a certain exasperation of the local population (Representative of the Monts d’Ardèche Regional Natural Park, 2021). The proportions of international visitors in 2019 was of 22% with a majority of Netherlands visitors, followed by Belgian, German, Swiss and British visitors.

Temporal distribution/seasonality
When are the temporal peaks (if any)? How is the seasonal distribution of visitors? **Explanation and numbers (if available)**
Low season: February-March, June, last half of October. Season beginning: April (mostly long week-ends due to public holidays) High season: July-August

Spatial distribution
What are the tourism hotspots? How is the spatial distribution of visitors? **Explanation and numbers (if available)**
Massif du Mézenc; Vallée de la Drobie; Vallée de la Beaume; Vallée du Chassezac Cascade de Beaumicou ; Dolce Via (bike track) (Representative of the Monts d'Ardèche Regional Natural Park, Representative of the Ardèche Tourism Development Agency, 2021)
Additional tourism figures
Are there any other important numbers/aspects to understand the tourism situation in the destination?
The Gorges de l'Ardèche, Grottes Chauvet and other remarkable sites from the département Ardèche are not included in the perimeter of the Monts d'Ardèche RNP. Looking at recognized tourism guides such as the "Routard", only 2 out of the 10 recommendations of sites to visit in the Ardèche department are in the Monts d'Ardèche RNP area. Also to note 9 out of 21 "villages de caractère" ("picturesque villages") are situated in the Monts d'Ardèche RNP area, the most famous being Balazuc being outside of the RNP perimeter.

3. Tourism management in the destination

Organisation of tourism & stakeholders
How is tourism in the destination organised? Which authorities are responsible for tourism? **Who are the central stakeholders involved in tourism management and development? What are the responsibilities of the different stakeholders?**
Tourism management occurs at three scales in France (the Region, the départments and locally at municipal or communal levels). The **Region directly finances the destination**, giving relatively few guidelines and promoting the Region via their tourism agency. The **départements help to understand the impacts of tourism** on the economy by analysing the tendencies of frequentation at the department level, often through their own tourism agency. In the case of the Monts d'Ardèche Regional Natural Park, the **Ardèche Tourism Development Agency helps identify strongly visited sites and develop a more focused analysis** on popular/particular points such as the Monts Gerbier for example. The Agency is composed of both elected representatives and tourism professionals and is involved in both communication and development strategies. According to the different interviews conducted, the Ardèche Tourism Development Agency seems to the key institution when it comes to tourist monitoring. The municipality communities and the PNR des Monts d'Ardèche can develop their own strategies promoting certain sites. These scales are often limited by budgets and personal capacities. (Representative of the Ardèche Tourism Development Agency, 2021) The tourism strategy from the Monts d'Ardèche Regional Natural Park is elaborated by representatives from the three scales described above, plus each municipalities involved. The Region Auvergne-Rhône-Alpes (108 votes), from both départements (Ardèche (38 votes) et Haute-Loire (2 votes)) and the 148 municipalities (148 votes) and their 10 municipality communities (18 votes). The principle of Regional Natural Parks relying on a deep societal acceptation of the project, a consultation of the population and economical actors is made each 14 years. (Monts d'Ardèche RNP, 2013). **Each tourism management scale is independent**, and none can dictate or directly influence the strategies elaborate by the other institutions.

Tourism organisation(s)
Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?
The destination's tourism strategy "**Charte du Parc des Monts d'Ardèche**" was established in 2013 for the period 2013-2025. The Charta is establishing a tourism strategy based on the value of artisanal, cultural and landscape heritage of the park. The overall aim is to maintain and encourage the tourism sector in the destination, with a shift toward sustainable tourism helping to maintain the heritage. To make this shift happen, the Park proposes to accompany tourism professionals towards a sustainable offer and make them visible as such through labelling (e.g. brand "Parc naturel regional" or "European Charter for Sustainable Tourism"). **The Park also promotes the development of touristic activities in less known areas** of the park and a diversification and higher control of the touristic offer on highly popular sites (through the development of hiking trails for example). Goal is to scatter tourists throughout the park with an offer compatible with the landscape and the other economic sectors (e.g. agriculture, local craft). **A scientific council is also attached to the destination** to support the committee in its decisions and informs on the environment, economic and social issues of the territory. Its role is also to communicate and disseminate the results of their research to visitors. The Charta is renewed each 15 year and is a binding contract for all engaged parties. The Charta must be accepted by the French Federation of Regional Natural Park to be allowed to use the brand. (Monts d'Ardèche RNP, 2013).

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers
What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)
A **growing need for natural spaces** seems to be the main source of growing tourism. The unbalanced characteristic of the touristic spread also seems to be due to more **popular landscapes** in the south of the park. (Representative of the Monts d'Ardèche Regional Natural Park, Representative of the Ardèche Tourism Development Agency 2021)
Impacts
What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders? **Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?**

The most prominent impact of unbalanced tourism in the destination is the growing resentment of the local population towards tourism. This is especially true in small villages/small places were **locals get easily outnumbered** as for example in Vernon a village from less than 250 inhabitants hosting a cascade. This problem however is quite new and began to raise around 3 years ago according to the department (Representative of the Monts d'Ardèche Regional Natural Park, 2021).
The impacts on the environment are also seen (**problems of trampling, water quality**) but their highly concentrated nature, outside the breeding period seems to be well absorbed by the environment which can quickly recover afterwards. (Representative of the Ardèche Tourism Development Agency, 2021).

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

Even when highly benefiting from tourism through a great amount of jobs, the local population seem to be the most affected stakeholder. (Representative of the Monts d'Ardèche Regional Natural Park, Representative of the Ardèche Tourism Development Agency 2021)

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

Capacity problems and bottlenecks at a few popular sites only particularly at cascades or natural pools and at Mont Gerbier. (Representative of the Monts d'Ardèche Regional Natural Park, Representative of the Ardèche Tourism Development Agency 2021)

Additional comments on the overtourism situation

Are there any other important aspects to understand the unbalanced tourism situation in the destination?

The destination is made of several small-scale sites and villages which imply that the capacity of those places quickly attains thresholds that are difficult to monitor with entrance numbers as the visited sites are public areas (village places, landscapes…). (Representative of the Ardèche Tourism Development Agency & Representative of the Observatory of the tourism economy for Ardèche Tourism Development Agency, 2021)

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

Since 2020, several strategies are implemented in the park. First and foremost, **no communication is made on sites subject about overcrowding** during the summer to try and redirect tourists towards less crowded places. At departmental level a map of **monitored bathing areas** was developed in order to hold wild bathing and preserve more private bathing places from tourists for example. **Sites where unbalanced tourism is most problematic were partially closed to campervan** (Representative of the Monts d'Ardèche Regional Natural Park, Representative of the Ardèche Tourism Development

Agency 2021). Quality management measures to implement sustainable tourism activities are achieved via the use of labels and branding. The most iconic label used by the Monts d'Ardèche RNP is the brand "Valeurs Parc Naturel Régional" which can also be used for products and services. In 2020 98 hosting companies, 12 tour guides, 4 mineral specialists, 20 producers and 26 houses and museums were engaged with the brand. (Monts d'Ardèche RNP, 2021) The label "Villages de caractère" (Picturesque Villages) is marking the preservation of an architectural heritage.

Innovative aspects

What are the unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

Visitors and tourist numbers at the destination are monitored both by the park and the Ardèche department. The monitoring is made through:

- Data gathering via locally placed sensors (at gateway of hiking trail or to vantage points…)
- statistics gathered by key tourism businesses (hotels, museums, the Park's House…),
- statistics are also gathered by the Ardèche department via the "Flux Vision Tourisme" tool to measure visitor flows.

The Flux Vision Tourisme tool was implemented to better **assess the number of visitors and sites' frequentation** via mobile phone signals. A rather precise idea of volumes and visitors' segments is gathered by monitoring the big data emitted by people's mobile phones on a defined zone, on a daily basis. This tool was reported to be helpful **to estimate the daily/nightly number of residents and visitors on a zone and determine their origin** (at country level for international visitors and at department level for national visitors). This allows a more accurate estimation of actual peaks, including residents, and non-tourist present on site. Zone sizes can also be adapted. One of the more focused points of this tool was directed on the Mont Gerbier which is one of the PNR sites mostly affected by unbalanced tourism and allows to complete the counting made on the hiking trail leading to its summit (this one mostly measuring tourists using the trail and not tourist or locals coming through other paths or involved in other activities on this site). This tool can also be used to track the mobility of visitors during the day and the reality of their spread and concentration (e.g. maybe the concentration is high at night but not particularly disturbing, or maybe tourists gather on some sites at specific hours). (Representative of the Observatory of the tourism economy for Ardèche Tourism Development Agency, 2021 and Ardèche Tourism Development Agency, 2020)

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

No clear measurement of the effectiveness of the strategies and measure can be done for the moment, as they were implemented last year. The issue being quite new for the destination, it still is difficult to tell if the non-communication strategy worked in terms of frequentations. As few influences can be taken on social media communication from visitors, the limit of this strategy is still unknown.
The effectiveness of the use of big data to deal against unbalanced tourism in the Monts d'Ardèche Regional Natural Park is deemed interesting for broad sites as the Mont Gerbier. However, foreseeing small places/villages at risk of unbalanced tourism is still difficult with this tool as no threshold can be applied. (Representative of the Monts d'Ardèche Regional Natural Park, Representative of the Ardèche Tourism Development Agency & Representative of the Observatory of the tourism economy for Ardèche Tourism Development Agency 2021)

Challenges & success factors
What were the central challenges when planning, developing, and implementing the measures? **What were the central success factors when planning, developing, and implementing the measures?**
A challenge on the measurement of unbalanced tourism in the PNR des Monts d'Ardèche is that it happens on small-scale sites meaning that it is rather a question of ratio tourist/local than a question of absolute number. Therefore, most of the sites suffering of unbalanced tourism are detected when complaints rise. An anticipation of it is still difficult. (Representative of the Monts d'Ardèche Regional Natural Park, Representative of the Ardèche Tourism Development Agency & Representative of the Observatory of the tourism economy for Ardèche Tourism Development Agency 2021)
Transferability to other destinations with similar characteristics
What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?
The Flux Vision Tourism Tool used by the departmental tourism development agency in the destination was developed by the French telecommunication enterprise Orange and necessitates the processing of big data steaming from the network. The tool seems particularly adapted to observe sites whose territories do not coincide with a pre-existing scale (such as natural sites for example). (Representative of the Observatory of the tourism economy for Ardèche Tourism Development Agency, 2021 and Ardèche Tourism Development Agency, 2020)
Additional comments on solution approaches Are there other important aspects to understand the strategies/measures chosen?

6. Monitoring/indicators

Monitoring of overtourism situation
Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?
The monitoring of visitor numbers and origins in the destinations made by a combination of data gathered by the départements and the destination itself. At Park level those are rather estimations. The broadest monitoring happens on the departmental scale and is made by the departmental Tourism Development Agency, working with the "Flux Vision Tourisme" tool and the additional data collected by the sites themselves. The destination on the other side compiles the data steaming from pedestrian counters placed on the entrance of some sites and thanks to the counting made at the different Houses from the Park. Further estimations are made by the team of the Park compiling and pondering the data from both departments (Ardèche and Haute-Loire) as the perimeter of the park cannot be materialized with barriers. (Representative of the Monts d'Ardèche Regional Natural Park, 2021)

A direct monitoring of visitors and tourists flows on site is however difficult to implement for the destination due to its broad perimeter. (Representative of the Observatory of the tourism economy for Ardèche Tourism Development Agency, 2021 and Ardèche Tourism Development Agency, 2020)

Indicators used

What are indicators used for the observation? Which indicators have proven successful?

The mobile phone signals give the most accurate information as they can distinguish between residents and tourists:

- A resident is someone who spent at least 22 nights in the zone of observation during the last 56 days,
- A tourist did not and is not regularly observed in the zone,
- An excursionist is someone present at least 2 hours on the observed zone, who did not sleep on the zone the previous night and will sleep in this zone the night of the excursion and is present less than 5 times in the zone during the last 15 days.
- The origins of mobile phones owner are determined through the billing address or of the origin of the SIM card.

A statistical adjustment is made according to Orange's market share and the mobile phone equipment's ratio. (Ardèche Tourism Development Agency, 2020)

Specific indicators

Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?

The tracking of mobile phone signals seems to be rich in relevant information (origin, type of tourism, movements throughout the day) however the tool is not implemented on the full perimeter of the park. (Representative of the Observatory of the tourism economy for Ardèche Tourism Development Agency, 2021 and Ardèche Tourism Development Agency, 2020)

Challenges and success factors of the monitoring

What are the challenges and success factors of the monitoring system/the indicators?

This tool requires the existence of the service by a mobile phone provider and a capacity for the destination to provide for it in terms of analysis and price.

7. Management of the pandemic

Changes due to the pandemic

What has changed due to the pandemic? How has the pandemic influenced the tourism development?
How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?

The pandemic induced a further concentration of tourists in the summer months with losses on the seasons wings due to lockdown. (Ardèche Tourism Development Agency, 2020)

8. Outlook & Additional Comments

Expected future changes
What are the expected changes in the future tourism development? What are the plans for post-covid tourism?
A new tourism strategy is to be drafted this year however the recent change in majority at the departmental council needs is slowing things down as new directives might be given to the ADT. The interviewees could not answer this question. (Representative of the Ardèche Tourism Development Agency & Representative of the Observatory of the tourism economy for Ardèche Tourism Development Agency, 2021)
Risks and uncertainties
What are the most relevant risks and uncertainties currently?
The most relevant risk concerning unbalanced tourism are rising use conflicts between tourists and inhabitants and uncertainties are maintained on the potential places at risks of unbalanced tourism.
General recommendations
What are general recommendations that you'd like to share for destinations with similar challenges?
Rural sites are more likely to suffer from unbalanced tourism at low threshold and therefore difficult to spot through an only quantitative monitoring of visitors. Particular attention should be given to complaints made by inhabitants to spot those places.

List of references and interviews

Interviews:

Representative of the Monts d'Ardèche Regional Natural Park (on the 02.07.21)
Representative of the Ardèche Tourism Development Agency (on the 21.07.21)
Representative of the Observatory of the tourism economy for Ardèche Tourism Development Agency (on the 21.07.21)

References:

Ardèche Guide (2021). Villages de caractère en Ardèche: https://www.ardeche-guide.com/villages-de-caractere-en-ardeche
Environmental Code, Titel III, Chapter III: The Regional Natural Parks. (as valid the 31.08.21): https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000006074220/LEGISCTA000006159241/#LEGISCTA000006159241
Monts d'Ardèche Regional Natural Park (2020). Panorama 2020: https://www.parc-monts-ardeche.fr/wp-content/uploads/bat-210222-pnrma-panorama-a4.pdf
Parcs naturels régionaux de France (2021). Comprendre les parcs. https://www.parcs-naturels-regionaux.fr/les-parcs/comprendre-les-parcs
Routard (2021). Ardèche, nos 10 coups de cœur: https://www.routard.com/reportages-de-voyage/cid138960-ardeche-nos-10-coups-de-coeur.html
History of the Monts d'Ardèche Regional Natural Park (2019): https://www.parc-monts-ardeche.fr/role-et-fonctionnement-du-parc/le-parc-naturel-des-monts-dardeche/historique/
Monts d'Ardèche Regional Natural Park Charta (2013): https://www.parc-monts-ardeche.fr/wp-content/uploads/charte-du-parc-2013-2029.pdf
Ardèche Tourism Development Agency (2020). Assessment of the 2020 season: http://pro.ardeche-guide.com/bilan-de-la-saison-2020

Plitvice Lakes

1. General Information about the destination

Case study item	Information	Data source
Destination name	Plitvice Lake	
Destination type	Rural	
NUTS 3 Level	HR032 Lika-Senj County	
Country	Croatia	
Region	Lika-Senj County of the Adriatic region of Croatia	
Tourist area size (km2)	The surface area of the park of Plitvice Lake totals 296 km², this includes the whole Plitvice Lake catchment area. The aquatic surface area covers 1% of this total, 81% are forest areas, grasslands account for 15%, and approximately 3% has been substantially changed due to anthropogenic impacts (Plitvice Lakes National Park Public Institution, 2019).	Plitvice Lakes National Park Public Institution, 2019
Population	According to the 2011, and most recent, census, in the total four municipalities (Plitvice Lakes, Rakovica, Vrhovine and Saborsko) that include the territory of the park, there are 8,773 inhabitants (Plitvice Lakes National Park Public Institution, 2019). In the more narrow area surrounding the Plitvice Lakes (two municipalities Plitvička Jezera and Saborsko) there approximately 21 settlements. The settlements are scattered with several smaller and mutually remote villages/towns, characteristic of mountain areas. The main settlements within the national park are Plitvička Jezera with the villages Mukinje, Jezerce, Plitvica, Poljanak, Rastovača, Babin Potok as well as a number of others directly on the park periphery. (Lindenmann, et al., 2011)	Plitvice Lakes National Park Public Institution (2019) Lindenmann, K., Rajković, Ž. and Škunca, O. (2011)

In the more narrow Park area there are 1,411 inhabitants living across these 21 settlements. Of this population, the two largest settlements, and 6 mid-sized settlements account for 87% of this population. The remaining 13% of inhabitants occupy the smaller settlements in the area (PLNPPI, 2019). More specifically there are a total of 1018 registered housing units in the Park area, while only 480 of them are permanently inhabited, 336 units are inhabited only occasionally; and 66 units are used as vacation properties, and 136 units are abandoned.

An additional 1,636 inhabitants live in settlements the wider administrative area which includes the park and nearby settlements.

For a visual representation please see the map below.

Figure 20: Population Plitvice Map

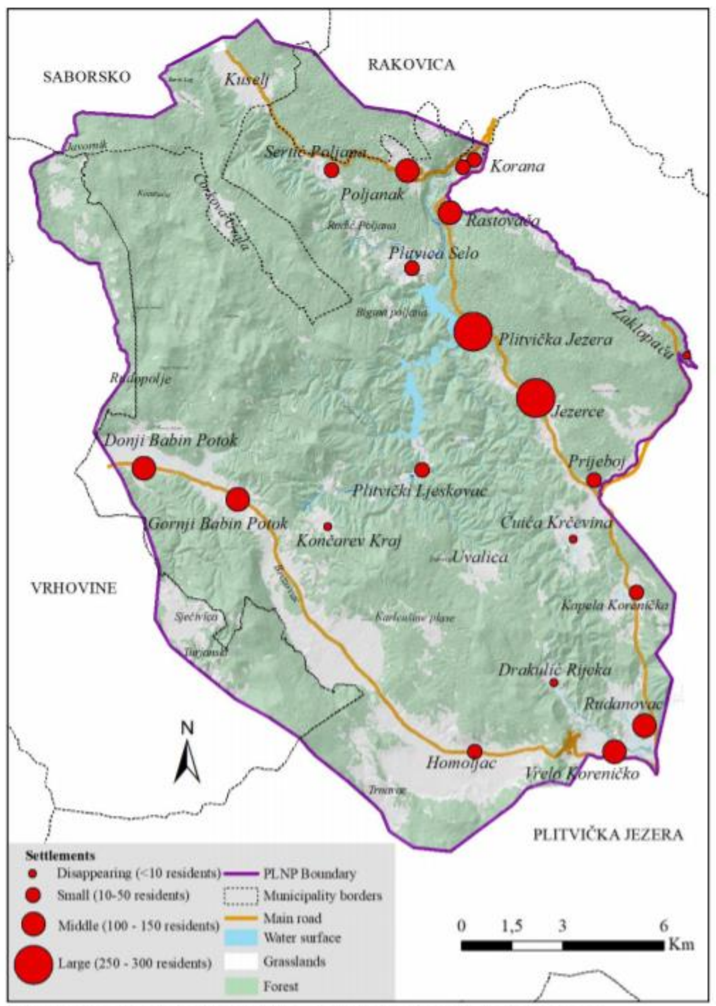


Figure 3. Settlements in the territory of Plitvice Lakes National Park according to the 2011 Census.

Source: Plitvice Lakes National Park Public Institution, 2019

	Being rural, despite positive tourism trends, the population in the four municipalities in the territory where the Plitvice national park is located have had a steady reduction in population from 1931 to 2011, according to the most recent census data.	
inhabitants in destination	2,047 individuals live within what is considered the destination itself. This number is divided into inhabitants of the park itself, and those of the wider administrative area, but who do not live directly in the park. More specifically, 1.636 inhabitants live within the administrative area of the park, but are not located directly in the park, while 1,411 inhabitants are living in the park area, according to the 2011 census.	Plitvice Lakes National Park Public Institution (2019)
inhabitants in tourist centre/ core area	There are 1,411 inhabitants living in the park area, according to the last available census in 2011.	Plitvice Lakes National Park Public Institution (2019)
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	Total contribution of travel in tourism to GDP: 24.4% of total economy in 2019, and 10.2% of total economy in 2020, a reduction of 61.9%. Total contribution of Travel & Tourism to Employment: 377.2 jobs in 2019 accounting for 22.2% of employment, and 318.3 jobs in 2020 accounting for 19% of employment, repressing a reduction of 15.6% Total travel and tourism jobs amount to 334MN, or 1 in 10 jobs in 2019; in 2020 this is 272MN and 1 in 11 jobs.	**https://wttc.org/Research/Economic-Impact**
Importance of tourism in destination (GDP, employees)		

tourist arrivals in destination (2015-2019)	**2019**: 345 625 **2018**: 336 431 **2017**: 308 146 **2016**: 245 700 **2015**: 228 062 *As a note, the values above vary from those provided below which are available from the touristic municipality report for Plitvice Lake. Both have been provided, but likely the national statistics are the more verified source.* **2015**: 164,786 (local visitors from Croatia not included) **2016**: 179,491 plus 9.612 from within Croatia **2017**: 79.236 plus 4.698 (for the period 01/01/2017 to 30/06/2017)	DZS HR Annual statistical report for 2015,2016,2017,2018,2019 Report on the touristic group municipality Plitvice Lake, 2017 Report on the touristic group municipality Plitvice Lake, 2016 Report on the touristic group municipality Plitvice Lake, 2015
overnight stays in destination (2015-2019)	**2019**: 485 699 **2018**: 468 475 **2017**: 430 676 **2016**: 340 943 **2015**: 306 245 *As a note, the values above vary from those provided below which are available from the touristic municipality report for Plitvice Lake. Both have been provided, but likely the national statistics are the more verified source.* **2015**: 221,630 (local visitors from Croatia not included) **2016** 249,848 plus 14.091 from within Croatia **2017**: 105.050 plus 6.984 from within Croatia (for the period 01/01/2017 to 30/06/2017)	DZS HR Annual statistical report for 2015,2016,2017,2018,2019 Report on the touristic group municipality Plitvice Lake, 2017 Report on the touristic group municipality Plitvice Lake, 2016

		Report on the touristic group municipality Plitvice Lake, 2015
day visitors, park entrances, cruise arrivals etc.	The national park Plitvicka Jezera in the first six month period of 2017 welcomed 588 366 visitors, representing a 31% increase in comparison to the same period in 2016 (450 603 visitors).	Report on the touristic group municipality Plitvice Lake, 2017
% tourism growth over the last 10 years	Prior to the pandemic, tourism growth from 2010 had been a steady 3%-5% annually.	According to interview findings

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

Tourism represents a **physical management challenges** because the destination is a national park, and biological resource, with a local population living both within the boundaries of the national park, and outside.

Impact from tourism is multifold, and listed below:

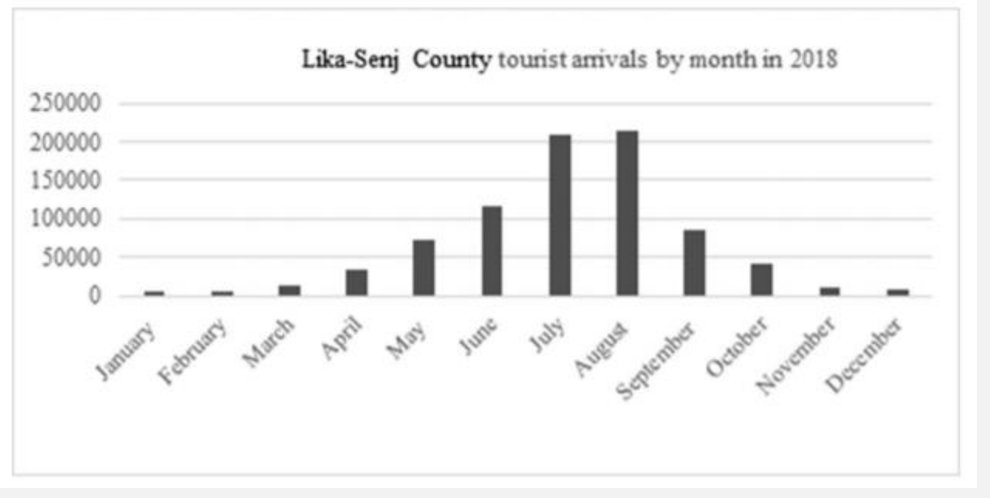
- Physical use of national park can cause **degradation of local flora and fauna**, as well as natural resources, and requires landscape management and preservation. The park has the capacity to handle tourism, however, **overpopulation during peak times** of the year can cause strain.
- Accommodation and infrastructure development for increasing visitor numbers can cause land-use strain. For the most part, housing availability for visitors is not seen as an issue, as new either individual rooms and suites, or hotels, are being developed in the region in pace with tourism demand. However, some construction can be considered as a strain on land-use. This is particularly the case within the park, and near the park borders, where land-use plans strictly manage the size and type of infrastructure that can be developed, however pressure from private enterprises to allow hotel development is substantial.
- Public infrastructure, particularly **water, can be problematic the during peak visitation times in the summer**. To date, there have not been any reported overt water shortages, but the strain on the waterways is reported. However, any systematic infrastructural improvements are quite expensive, and difficult to justify as all other remaining months the waterways are easily able to service local populations and tourists alike.

2. Tourism development

Tourism Development
How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic? **Short description of recent development**
Tourism growth from 2010 to 2019 had a steady annual increase of 3-5%, and overall positive tourism trends were observed both in the national park, and in the local area. This included increased development of tourism infrastructure, availability of rooms, revenue from tourism, and spending and disposable incomes by local populations. Due to the pandemic isolation measures, the closing of borders for entry into the country, and rapidly changing in border measures in the EU resulting in reluctance of entering the country, tourism has been significantly negatively impacted. The previous year, tourism in Plitvice lake was 25% of that in 2019, and financially about 20% of previous income. This has affected the tourism industry by affecting small entrepreneurs, as well as larger private partners investing in larger hotels etc. In addition to this, effects have been felt in the local food processing industry as consumption has decreased.
Visitor segments (Share and/or numbers)
What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.
The main countries of origin for range slightly from year to year, but include Japan, Korea, Germany Italy, France, the US and Taiwan, China. The motivations for the visit are exploring the national park, and recreational tourism. Both overnight stays and day visits are popular at Plitvice Lakes. For example, in 2015, there were 83.934 day visits, in comparison to 112.034 overnight stays (Report on the touristic group municipality Plitvice Lake, 2015). In 2016 this number was significantly larger, totaling (189.103 day visits and 263.939 overnight stays (Report on the touristic group municipality Plitvice Lake, 2016).
Temporal distribution/seasonality
When are the temporal peaks (if any)? How is the seasonal distribution of visitors? **Explanation and numbers (if available)**

Despite the national park being an attractive location offering tourism activities year-round, the peak months are June, July and August. Other popular months have been in October and November, in the recent years prior to the pandemic.

Figure 21: Tourist Arrivals in the Lika-Senj county by month



Source: Anita Bušljeta Tonković, 2019

Spatial distribution

What are the tourism hotspots? How is the spatial distribution of visitors?
Explanation and numbers (if available)

In a zoomed-out perspective, the largest hotspot for visitations is the Plitvice Lake municipality with respect to the NUTS-3 region under investigation are Plitvice Lakes, Novalja, and Senj municipalities.

At a finer granulation, on a settlement and tourist location-based level, visits to the national park are a main tourist hotspot. In the first six months of 2017, the park saw a total of 588 366 visitors, a 31% increase from the previous year.

In terms of tourist accommodations, the main accommodations are the hotels 'Jezero' (Lake), 'Plitvice', 'Bellevue' and 'Macola', these hotels have 996 beds. Other accommodations include 140 camp sites, 78 bed and breakfast rooms, 56 student rooms, 54 beds in the 'falling lakes' hostel, 50 beds in the 'Lana House' hostel, 51 beds in the 'Pastoral Centre', and 3,266 beds in private accommodations (237 apartments and 995 rooms). These accommodations are distributed across 24 settlements, and numbers had increased by 575 beds from the previous year. (Report on the touristic group municipality Plitvice Lake, 2017)

In 2016, the main hotels hotels 'Jezero' (Lake), 'Plitvice', 'Bellevue' had 117990 overnight visitors. The hotel Macola had 38863 overnight visitors for the same period. Private accommodations accounted for 156476 overnight visitors. (Report on the touristic group municipality Plitvice Lake, 2016)

Tourism accommodations range from private apartments, to hostels, and beds in private houses (Report on the touristic group municipality Plitvice Lake, 2016).

3. Tourism management in the destination

Organisation of tourism & stakeholders

How is tourism in the destination organised? Which authorities are responsible for tourism?
Who are the central stakeholders involved in tourism management and development? Is there a monopolisation/dominance of certain businesses? What are the responsibilities of the different stakeholders?

Plitvice Lake National Park operates as a public institution, as is the case in many of the protected areas in Croatia. In this regard, the governance system of the National Park itself is the responsibility of the national Ministry of the Environment and Energy (Vurnek et al., 2018). Plitvice Park specifically is managed by the Plitvice Lakes National Park Institution (PLNPPI). The PLNPPI manages the National Park and the areas of the Natural 200 ecological network, including the protected areas in the National Park itself. And, as mentioned the Republic of Croatia is the PLNPPI founder, and all rights and duties are taken on behalf of the Republic of Croatia, by the Ministry of Environment and Energy (PLNPPI, 2019). The PPNI is managed by a Governing Board, headed by the Minister, and consisting of five members. The figure below demonstrates the organisational structure of the PPNI.

The Tourist Board of the Municipality of Plitvice Lakes has additional tourism related responsibilities in Plitvice Lake. The tourism board is responsible for managing visitors, collection of certain tourism related data, promotion of tourism in the area, and coordination of tourism management measures. The Ministry of Tourism and Sport has and overarching role as well.

In addition, being a UNESCO Natural Heritage site, UNESCO guidelines are implemented in coordination with the PLNPPI.

Additional information on the roles and responsibilities of the Plitvice Lakes National Park Public Institution (PLNPPI) are provided in the excerpt below.

> "In accordance with the Nature Conservation Act, the Public Institution shall perform activities pertaining to conservation, maintenance and promotion of a protected area with the aim of protecting and maintaining the authenticity of nature and of ensuring the undisturbed progress of natural processes and the sustainable use of natural resources, and shall exercise control of the implementation of nature conservation conditions and measures in the area of its management; the Public Institution also participates in data collection with the aim of nature conservation status monitoring. In addition to these tasks, the Plitvice Lakes National Park Public Institution also performs other activities determined by its Charter, such as: reception, provision of information, guidance and transport of visitors using own means of

transport; HORECA (Hotel/Restaurant/Café) and tourism activities; wholesaling and retailing within its area of activity; promotion of production of autochthonous cultural products (ethnological treasure); promotion of development of traditional HORECA offer (rural tourism); management of facilities; promotional activities (advertising and publicity) and market research; professional fire brigade activity within economic activities; etc. The Public Institution is managed by the Governing Board, which consists of five members appointed and dismissed by the Minister." (Plitvice Lakes National Park Public Institution, 2019)

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

The institutions are those mentioned in the text above.

The Tourist Board of the Municipality of Plitvice Lake. This board is ultimately organised through the ministry of tourism. The roles and responsibilities and mandate of the Tourism Board is primarily in managing, promoting, and monitoring tourism availability and visitors.

The Plitvice Lakes National Park Public Institution (PPLNI) has a mandate to protect the environmental integrity and ensure management of the national park. The public institution is governed by the Republic of Croatia and managed through the Ministry of Environment and Energetics. The Plitvice Lakes National Park Public Institution has released a park management plan, which focuses on five themes, sub-themes and detailed monitoring and evaluation criteria and targets. In the recent plan (Plitvice Lakes National Park Management Plan 2019 – 2028), the third theme deals with Visitor Management, particularly in the field of sustainable visitor management. The main points of the management plan are included below:

- Park management is planned through five main themes that include prepared status evaluations of key characteristics, as well as defined general objectives and activities grouped around sub-themes.
- In total, there are 561 activities,2 grouped in 5 themes, i.e., 17 sub-themes
- The foreseen costs of all activities within the ten-year Plan implementation period amount to 1,630,846.000 HRK
- The specific objectives and their indicators have been defined for the 10- year period as foreseen implementation period of the Plan, so the duration aspect is not specifically emphasized in the manner in which the objectives are formulated.
- The plan is developed in more detail, and implemented through Annual Programs of National Park Protection, Conservation, Promotion and Use (hereinafter: Annual Programs). Both of these documents are reached by the Governing Board of the Public Institution, with the consent of the Ministry of Environment and Energy (MEE).
- The developed action plans also enable monitoring of the degree of implementation of planned activities and their effectiveness in the achievement of objectives, which is the foundation of adaptable management.
- The adaptation of management itself is ensured through Annual Programs that can amend parts of action plans with required detail or new activities; planned activities can be adapted or even eliminated altogether, but always in a manner that continues to contribute to the achievement of objectives defined by the Management Plan, and with appropriately elaborated and founded reasons for such changes

(Plitvice Lakes National Park Public Institution, 2019)

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers
What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)
The main route causes and drivers has been an increased interest in recreational tourism, and nature tourism, which has resulted in a steady increase of visitors to Plitvice, and the Plitvice National Park, over the past ten years prior to the pandemic. This has resulted in large crowds arriving during the peak tourist months (June, July, August). An additional trend has been the extension of the tourist season into October and November, as well as in January and February, however the number of arrivals during these months does not present an issue of overtourism, as numbers continue to be quite manageable. The main route causes and drivers can be considered to be: • Large **influx of tourists during** peak summer months. • Increased **interest in nature tourism** and adventure tourism. • Continued trend for **visitors arriving during summer vacation**, creating crowds during peak months. • Trends before the pandemic were **large group arrivals** to the national park itself via busses between the hours of 11 and 14, which cause large strain on the resources in the park. A measure that was introduced was a cap on park entrances during these hours, and increased coordination with tourist organisations to encourage booking appropriate slots to decrease any waiting time to enter the park. • Another trend prior to the pandemic has been an **extension of the touristic season into the fall** (Sept and Oct), as well as an increase in visitor numbers during late January and February. • **Natural resources in National Park being vulnerable** to overtourism • **Capacity limitations** in park itself, including on the lakes for such things as boat tours. • Capacity limitations on **municipal waterways** in the settlements during the peak seasons.

Impacts
What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders? **Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?**
Environmental: - The high proportion of visitors during the summer months had caused a **large strain on the natural and physical resources** in the park. Crowds had developed at the park entrance, as well as within the park at the boat entrance docks, this caused wear and tear of the natural landscapes particularly in those areas bottlenecked

- Plitvice Lakes national park is a **significant biodiversity resource**, with numerous species of flora and fauna, resulting in it being included as a UNESCO Natural Heritage site. Therefore, **the park is vulnerable to overtourism**, as large crowds can affect both plants and animals and the ability of park staff to maintain and preserve biological diversity.

Visitor Experience:

- Previously high visitors in the summer months caused **crowds had developed at the park entrance, as well as within the park** at the boat entrance docks. The boat tours on the lakes within the national park are limited due to the capacity of each boat capping at 100 individuals. This physical capacity limitation resulted in crowds at the boat docks, decrease in the quality of the experience for visitors

Infrastructural:

- **Municipal water infrastructure** has also been seen as a potential issue in the peak months for tourism. The availability of **accommodations and guest beds have not been an issue** even during peak months. The local economy is highly based in tourism and new developments are being constructed and opened regularly.
- In so far as perception of the local population toward tourism, this increase in **the attractiveness of the tourist industry to investors has created competition in this sector**. Residents that formerly had their accommodations fully booked are finding themselves outcompeted and required to make increasing investments in renovations and marketing to remain competitive.

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

Negative effects:

Visitors are affected due to reduced visitor experience.

Local populations can be affected from potential expenses of improving water infrastructure.

Residents providing private accommodations, and small bed and breakfast and small hotel owners can be affected by increased competition in the industry and therefore increasing requirements for investments in renovations and marketing.

Positive effects:

Tourism is an important part of the local economy and increases in tourism have been linked to observed increased spending and investments among local populations.

According to interview findings, the neighbouring agricultural and animal husbandry industries have been positively impacted due to increased demand. As a note, however, there is not clear evidence of this in the literatures results.

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

- Park entrance, boat entrance, and the simple bottleneck that the park is a protected natural resource that cannot biologically handle large numbers of visitors at one time without being threatened by degradation.

- Municipal water infrastructure, and freshwater availability. The local areas can still compensate for all visitors during peak motths without any water shortages, however, as numbers increase this costly infrastructure risks becoming additional strained.

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

The strategies applied and initiators are as follows:

- Introducing a **cap on park entrances at peak hours (11h-14h)** during summer months. This has been initiated by the PPLNI and implemented in coordination witht the DMO, businesses, park officials and tourism agencies.
- **Increasing the cost of admission** to Plitvice Lakes National Park during the summer season (June-August) as a means of incentivising pre-season and post-season visits. This was introduced in 2019. Outside the main tourist season, tickets are now almost three times cheaper.
- **Limiting the number of visitors** to the Plitvice Lakes National Park and restrict entrance to the purchasing of tickets online at least a day in advance (24 hours). Tickets are released at **1000 entries per hour**, and in this way the volumes of visitors entering the National Park is controlled. This was implemented in response to an appeal from UNESCO to introduce more sustainable measures for managing the National Park. This request was targeted asked that park administration to pay more attention to the protection of the National Park itself and less on the commercialisation of the park, consumerism and tourism. At the request of UNESCO, the competent Ministry issued measures and instructions, and the same was carried out by the National Park Governing Board of the PLNPPI, the director and the heads of services.
- In 2017, **protests organised by the veteran population** on the Park's bridge over the Great Waterfall aimed at establishing **more order and control in the settlements** that where uncontrolled previously which resulted in developments and apartments being built in and around the Park, in the areas that hold natural value, this has been partly influenced by the decisions and actions of the competent ministries.

Innovative aspects

What are unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

The ticket payment system in the National Park is an innovation. New software has been introduced to ensure better visitor control and management of the Park. Now, ticket purchase is performed online. Tickets for park entry can be bought/booked a month, two, or three in advance. As a result, fewer crowds are created at critical points in the park. In particular at the docks where the ship is boarded, and at the stations where the panoramic train runs are boarded. These activities are included in the ticket price.

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

The effectiveness of this strategy is measured according to the numbers of visitors entering the park, and frequency of delays at park entrance due to poor coordination. The Plitvice Lake Tourism Board closely monitors tourist arrivals, number of accommodations, capacity, financial indicators, etc, in order to strategise and coordinate tourism management

In addition to this, the effectiveness of the overall preservation strategy of biodiversity in the Park is monitored via the Plitvice Lakes National Park Public Institution, through their newly developed Plitvice Lakes National Park Management Plan 2019 – 2028. This plan has a monitoring framework that covers 5 themes, each with subthemes and indicators. The third of the five overarching themes addresses 'Visitor Management' and is monitored using the following indicators:

Visitor Use Management Indicators for Plitvice National Park 2018-2028	
Sub-theme CA. VISITOR USE MANAGEMENT SYSTEM CA.	
Diverse visitation programs throughout the Park area imbued with the offer of the local population; code of conduct established and infrastructure adapted to conserve the ecosystem and original beauty of landscapes by directing the visitors and enabling safe visit and presentation of Park values, as well as unforgettable experience of beauty and values of conserved nature.	
Indicators	• Visitor use does not threaten Park values nor the quality of target experience for visitors; i.e. visitor use impacts are maintained within acceptability boundaries determined by standards, as a result of active management, in zones of all ROS classes in the Park area • Number and diversity of programs throughout the Park area is adjusted to the needs of presentation of values, interests and possibilities of visitors, and management of visitation dynamics • Visitor infrastructure is safe for visitors, adjusted to the needs of conserving the outstanding universal value and other values of the Park, while enabling the desired experience • Number of local hospitality and tourism service providers included in the Park offer (traditional farms, crafts, etc.) is growing • Share of visitors with the highest level of satisfaction in connection with all aspects of the visit • Share of visitors staying in the Park longer than one day is growing, as well as average length of visitor stay • Visitation revenue is stable or growing
Sub-theme CB. HOTELS, CAMPING SITES, RESTAURANTS AND SHOPS CB.	
By managing HORECA (hotels, camping sites, restaurants) and shops in a sustainable manner, through recognizable quality of facilities, services and offer founded upon tradition and originality of the area, the Public Institution is ensuring harmonization of these activities with conservation needs and prerequisites for sustainability and development of the local community, while presenting Park values and ensuring additional revenue for their conservation.	
Indicators	• All HORECA facilities of the Public Institution are renovated in accordance with the highest architectural and environmental criteria and conservation of outstanding universal value (OUV) • Quality of accommodation per facility is profiled in accordance with expectations of target visitor markets

	• HORECA of the Public Institution is ecocertified, and its ecological footprint is decreasing • Volume of content in HORECA facilities used to present Park values is growing (food offer, exhibitions, events, decoration and equipment of facilities, etc.) • Growing number and value of procured local products provided to visitors through HORECA offer of the Park • Number of employees and productivity per employee are stable or growing • Length of operating season and average length of stay in hotels and camping sites of the Public Institution are growing • Highest level of visitor satisfaction in connection with the quality of services and offer • HORECA revenue per facility is stable or growing • All existing shops and souvenir shops are renovated in accordance with the highest architectural and environmental criteria and conservation of outstanding universal value • Growing number of products presenting Park values in shops and souvenir shops • Value and share of local products in shop and souvenir shop turnover are growing • Offer is profiled per facility • Highest level of visitor satisfaction in connection with the quality of services and offer • Consumption in souvenir shops per visitor is growing • Revenue per facility from shops and souvenir shops is stable or growing
Sub-theme CC. INTERPRETATION AND EDUCATIO	
CC. Through various interpretation amenities and educational programs, visitors deepen and enrich their experience of unique Park values, realizing the importance of their conservation, and are inspired and motivated to contribute to nature conservation through their own behavior	
Indicators	• Number and diversity of interpretation amenities and educational programs are growing • Interpretation amenities in space are harmonized with the needs of established visitation programs • Total number of participants of educational programs is growing • Support of visitors to the conservation of Park values is growing • Highest level of visitor satisfaction in connection with interpretation and education amenities and programs
Sub-theme CD. MARKETING	
CD. The Park is the first sustainable destination in Croatia; a model for other protected areas and tourist destinations in the region, where conserved nature, cultural heritage and local community are intertwined in a sustainable manner.	
Indicators	• Sustainability of the Park is certified through obtaining and maintaining relevant globally recognizable certificates at the level of business operations of the Institution, individual HORECA facilities, the destination and partners within the destination • Park offer is harmonized with the preferences of target markets • Share of direct sales and sales via partners sharing the same values in the total sales of the Park is growing • Internal and external information and communication channels are established and used regularly • Share of Croatian visitors in Park visitation is growing

- Share of visitors from international primary target markets is growing
- Inclusion of the local population and Park staff in marketing activities of the Public Institution is growing
- Growing number of certified partners within the destination in Park offer
- Share of visitors staying in the destination longer than one day is growing, as well as average length of visitor stay
- Length of operating season and average length of stay in the destination are growing

Source: Adapted from the Plitvice Lakes National Park Management Plan 2019 – 2028 (PLNPPI, 2019)

Challenges & success factors

What were the central challenges when planning, developing, and implementing the measures?
What were the central success factors when planning, developing, and implementing the measures?

It was a challenge for the administration of the National Park to accept the new measures in such a short period of time as well for the tourist agencies and everyone whose business were involved with Plitvice Lakes National Park.
Today, however, everything is functioning very well and there are no more crowds in the Park.

Transferability to other destinations with similar characteristics

What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?

Coordination and agreement between all parties is an important aspect of implementing such measures. It can sometimes be difficult to gain the same level of agreement and interest between all stakeholders, however, once such measures are implemented and all parties learn make the necessary adjustments, positive impacts are felt.

6. Monitoring/indicators

Monitoring of overtourism situation
Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?
See section 5, impact management

Indicators used
What are indicators used for the observation? Which indicators have proven successful?
See section 5, impact management

Specific indicators
Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?
See section 5, impact management

Challenges and success factors of the monitoring
What are the challenges and success factors of the monitoring system/the indicators?
See section 5, impact management

7. Management of the pandemic

Changes due to the pandemic
What has changed due to the pandemic? How has the pandemic influenced the tourism development? **How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?**
As a result of the pandemic tourism numbers have decreased significantly. This has impacted the wide economy of the region, as so much of it was linked to the tourism sector. While pressure on the national park has decreased in many ways, other issues related to a reduction in GDP have surfaced.

8. Outlook & Additional Comments

Expected future changes

What are the expected changes in the future tourism development? What are the plans for post-covid tourism?

It is difficult to comment on the future tourism development post pandemic. Likely numbers would return to those before the pandemic, and likely even increase in the following years. It is further expected that off-season visits are due to increase at a faster rate than summer visits, however, the intensity of summer visits are also expected to increase over time. Therefore continued attention to the carrying capacity

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

The level of risks and uncertainties is moderate. Currently, the tourism management plan appears to be effective in so far as decreasing wait times, lines, and over-use of the natural landscape. This plan can manage the degree of tourism that was present before the pandemic. In addition to this, accommodations are adequate for pre-pandemic visitor structures.
On the other hand, some tension is expressed in the waterways, and their ability to accommodate an increase in tourists above what was present before the pandemic, or a large-number of year round tourists.
The local communities are quite reliant on tourism, and benefit economically from tourism. Therefore, while overtourism is problematic, the loss of tourism during COVID has also presented risks and uncertainties in terms of domestic incomes and local economic development.

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

Monitoring of tourism, and forming working groups to discuss tourism issues, is very important in creating pragmatic and effective tourism management strategies. In addition, strong landscape planning, zoning, and action plans for biodiversity, tourism, and local development are important on the local level.

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Interview
Representative of the Touristic group of the Plitvice Lake Municipality.

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Bled

1. General Information about the destination

Case study item	Information	Data source
Destination name	Bled	
Destination type	Mountain	
NUTS 3 Level	SI042	
Country	Slovenia	
Region	Gorenjska	
Tourist area size (km2)	72 km2 (municipality Bled)	(Statistical Office of the Republic of Slovenia, 2021a)
Population		
inhabitants in destination	Bled: 7’850 (2019) population density is 110.9 inhabitants/km2 (higher than the average of Slovenia (103.6 inhabitants/km2))	(Statistical Office of the Republic of Slovenia, 2021a) (Občina Bled, 2021)
inhabitants in tourist centre/core area	n/a	
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	GDP contribution of tourism in Slovenia: – 10.6 % of total GDP (2019) – 6.5% of total GDP (2020) Employment in tourism in Slovenia: – 11.0 % of total employment (2019) – 10.6% of total employment (2020)	(WTTC, 2021)
Importance of tourism in destination (GDP, employees)	Tourism contributes 30% of GDP and 40% of all employment in Bled.	(Občina Bled, 2021)
tourist arrivals in destination (2015-2019)	Increase of 61% from 2015 (315’928) to 2019 (509’247) in Bled	(Statistical Office of the Republic of Slovenia, 2021b)
overnight stays in destination (2015-2019)	Increase of 66% from 2015 (684’015) to 2019 (1’132’574) in Bled	(Statistical Office of the Republic of Slovenia, 2021b)
day visitors, park entrances, cruise arrivals etc.	n/a	

% tourism growth over the last 10 years	**Arrivals** 149% increase from 2009 (204’837) to 2019 (509’247) **Overnights** 125% increase from 2009 (503’724) to 2019 (1’132’574)	(Statistical Office of the Republic of Slovenia, 2021b)

Tourist intensity in 2019 (overnights/resident for the tourist area) 144
Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section) 15730

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

Bled is located in the north-western region of Slovenia and **one of the most internationally recognizable icons of Slovenia** and Slovenian tourism The municipality of Bled is part of the Gorenjska region and the UNESCO Julian Alps Biosphere Reserve. Bled is a part of Alpine Slovenia, one of the four tourist “macro destinations” in Slovenia, as defined by Strategy for the Sustainable Growth of Slovenian Tourism 2017-2021. In the last ten years, the destination of Bled has experienced a doubling of accommodation capacity and visitor numbers. As of August 2019, there were 10,671 beds in the municipality, which is equivalent to 1.1 beds/inhabitant and almost double since 2008. The previous tourism development plan has foreseen a capacity increase to 6’000 beds which was exceeded by 45%. **Growth was most intense in the private segment accommodation** that penetrate the market through easy bookable online services like Airbnb. The proximate location to the capital Ljubljana makes Bled an attractive day-trip destination. The attractiveness of Bled has been recognised in various travel and lifestyle magazines (National Geographic Traveller, Lonely Planet, Food & Travel etc.) and also **social media platforms like Instagram have further boosted the popularity of Bled** (e.g. #bled (over 600’000 posts, #lakebled (over 300’000 posts)). This fast and substantial tourism growth led to temporal and geographical congested hotspots that exceeded the critical threshold and led to a series of different negative consequences (ranging from environmental issues, **local community alienation, increase cost of living** etc.). (Občina Bled, 2021)

2. Tourism development

Tourism Development

How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic?

Short description of recent development

Tourism in Bled has been constantly growing before the pandemic, especially arrivals from international markets. The pandemic has led to a decrease of 60% in overnight stays in 2020 compared to 2019. However, a small stagnation of growth was already evident before the pandemic (-1.7% in overnight stays compared to 2018) whereas neighbouring destinations like the Julian Alps were still growing +6.5%.

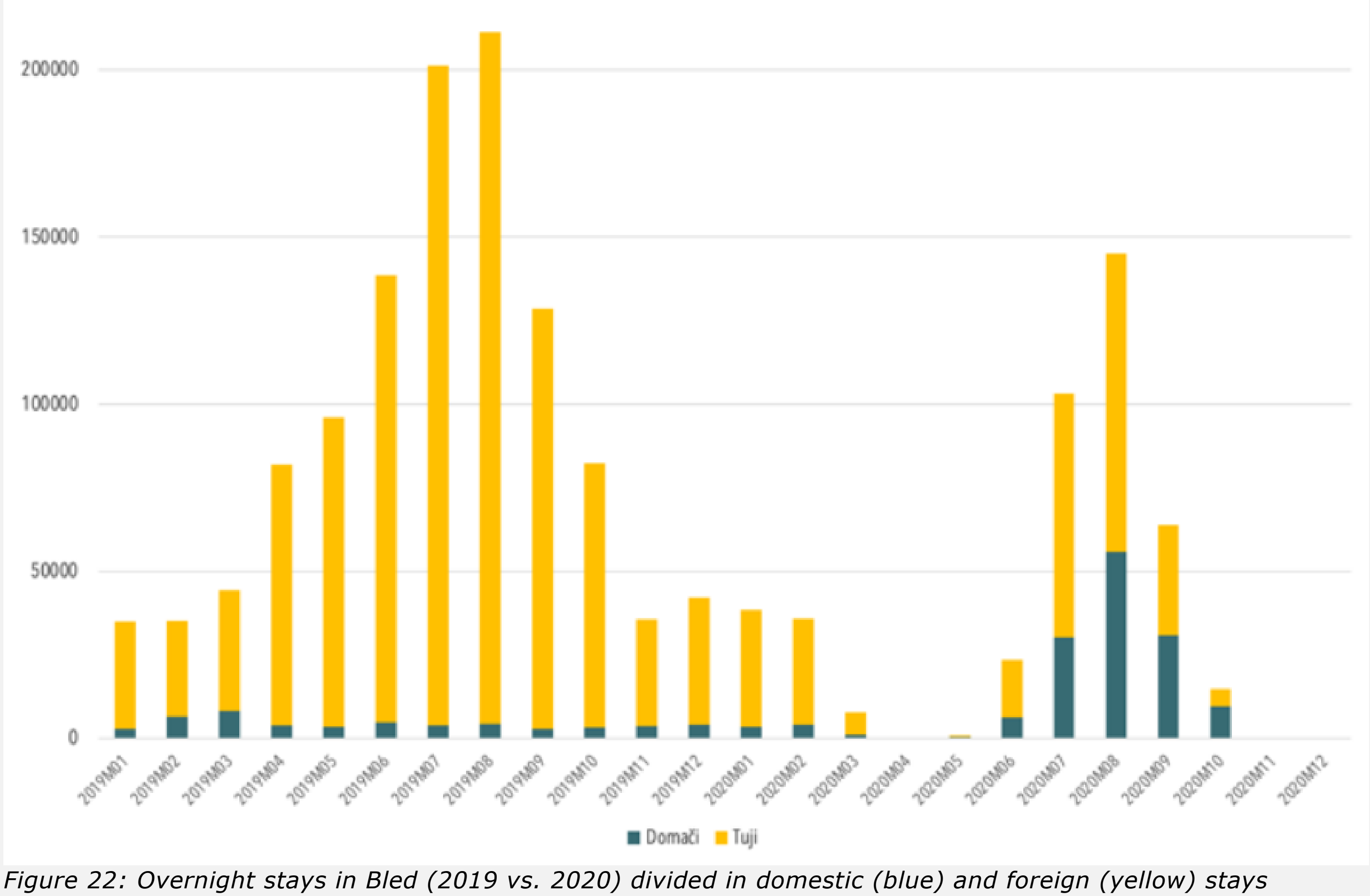

Figure 22: Overnight stays in Bled (2019 vs. 2020) divided in domestic (blue) and foreign (yellow) stays

Visitor segments (Share and/or numbers)
What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.
95% of overnight stays in the destinations were generated by foreigners. In general, oversea markets make up 33% of international arrivals and 24% of international overnights (overnights: 12% Asian guests/arrivals: 20% Asian guests). (Občina Bled, 2021)

Temporal distribution/seasonality
When are the temporal peaks (if any)? How is the seasonal distribution of visitors? Explanation and numbers (if available)
There is a seasonal peak of tourism activity during the summer months. In 2019 60% of all overnight stays were recorded in just 4 months (June-September).

Spatial distribution
What are the tourism hotspots? How is the spatial distribution of visitors? Explanation and numbers (if available)
There are different tourism hotspots in the Bled destination and the neighbouring Julian Alps where the Triglav National Park (the only national park in Slovenia) is located. There is also the famous Vintgar Gorge and the Lake Bohinj. Especially during high season (June-September) these hotspot experience high tourism densities that lead to various negative impacts. As described in section 5, there are already several complementing measures in place/planning to reduce pressure from these sights and reach a better geographical and temporal visitor distribution. The most famous hotspots in Bled are: - Lake Bled with Bled island on which is a medieval pilgrimage church - Ojstrica (panoramic viewpoint) - Bled Castle on a cliff above the lake - Vintgar Gorge - Triglav National Park in the Julian Alps (including popular Lake Bohinj) - Villas, parks and churches around the lake

3. Tourism management in the destination

Organisation of tourism & stakeholders

How is tourism in the destination organised? Which authorities are responsible for tourism?
Who are the central stakeholders involved in tourism management and development? Is there a monopolisation/dominance of certain businesses? What are the responsibilities of the different stakeholders?

Central Stakeholders in tourism management & development:

- **Turizem Bled (local DMO):** They are mandated with destination development and marketing. The development and promotion of tourism in Bled is based on sustainable and responsible principles, where quality, independence from seasons and added value for the local environment are considered an advantage over volume growth and traditional quantitative indicators (arrivals, overnight stays).
- **Občina Bled (local municipality):** The Municipality of Bled is using the moment of strong consensus in the local community, the opportunities in the foreign business environment and the green political commitments in the Slovenian and European frameworks for an even more decisive and systematic approach to introduce sustainable transformation in all areas with a focus on sustainable tourism development. The recently published sustainable development strategy of the Bled municipality clearer addresses the challenges from unbalanced tourism growth and proposes broad-based measures to reduce the negative impacts on the local community and environment. The alignment between the sustainable development plans of the local DMO and the local political authority is high and allows to efficiently push the matter forward.
- **Turistično društvo Bled (Bled Tourist Association):** The association currently counts around 800 members. They monitor the state of walking paths and the environment and are in charge of running the tourist information center in Bled in agreement with Turizem Bled. For these activities they receive i.a. funds from the municipality. Further they also carry out the nationwide yearly campaign "My country – beautiful and hospitable" where they organize projects like a public promenade cleaning. (Turistično Društvo Bled, 2019)

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

The central tourism organization is the local DMO, Turizem Bled. Their main tasks include the development, planning and management of tourism activities. Their main strategic document is the tourism strategy *Bled Tourism Sustainable Development Strategy 2018-2025* where sustainability takes a main strategic focus. Furthermore, they are certified since 2018 as a Green Destination Gold Level by the national sustainability initiative the Green Scheme of Slovenian Tourism.

Additionally, to the tourism strategy, the development strategy of the Bled municipality (*Sustainable Development Strategy of the Municipality of Bled 2030*) is also central and in the case of Bled these to strategic documents are well aligned and take each other into consideration. Both have a clear focus of sustainable development and follow similar strategic goals.

Additional comments:
Are there any other important facts to understand the tourism management in the destination?

Bled is a member of the Alpine Pearls group since 2011, the objective of which is to promote sustainable mobility

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers

What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)

- Bled is surrounded by a beautiful natural alpine landscape. Bled is at the directly located at the waterfront of the picturesque lake Bled with its iconic island (with church) in the middle
- It is considered a "must see" destination in Slovenia
- It is in proximity (ca. 50km) to the capital Ljubljana and ideally located for day trips

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders?
Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

- Ecological impacts, especially on Lake Bled (deteriorated water quality due to surge in swimming, fishing and boating, and rapid development of the lake shoreline etc.) (Lake Bled's Ecosystem, 2019)
- Increased dependency on tourism (especially on Asian markets) (Občina Bled, 2021)
- Pressure on local infrastructure (e.g. sewage system, road infrastructure)
- Reduced quality of life for local residents (e.g. traffic, increased cost of living) (Občina Bled, 2021)
- Reduced attractiveness of the tourism experience

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

The main affected stakeholders are the local population and the environment. But also the visitors are affected as the quality of the tourism experience has decreased due to crowding issues.

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

Traffic is an important capacity challenge that is currently being addressed with various measures under the umbrella "Green Mobility". But also the different hotspots experience capacity challenges during high season.

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

There are two important strategic documents that implement measures addressing the overtourism situation in Bled. First, in 2018 the *Strategy for the Sustainable Development of Bled Tourism 2018 – 2025* was adopted. Second, these aspects were also included into the newly revised *Sustainable Development Strategy of the Municipality of Bled 2030.* At the time of the creation of the tourism strategy the outlook of tourism growth was rather stagnating and the pandemic non-existent. Thus, the current turn of events, led to a detailed strategic goal regarding sustainable tourism development (especially in terms of "restarting/rethinking" tourism) in the municipal sustainable development strategy that could be considered an amendment to the existing tourism strategy. Further, the challenges of fast-growing tourism activity accelerated the paradigm shifts from marketing to management of destination management organizations. (Občina Bled, 2021)

- **Strategy for sustainable development of Bled tourism 2018 – 2025 (Turizem Bled, 2018):**
    - Better seasonal distribution (create experiences and promote Bled year around to decrease pressure from June-September)
    - Converting perception from "I must see" to "I must experience" to increase length of stay
    - Raising service quality (e.g. evaluations, awareness creation, workshop kindness or innovation held by Turizem Bled)

- **Sustainable Development Strategy of the Municipality of Bled 2030 (Občina Bled, 2021):**
  The renewal sustainable development strategy was elaborated in a participative process that addressed their needs and resulted in a comprehensive document. It was published in March 2021. As described in the context of the strategy, the current demographic trend (declining and ageing population) and the tourism pressures on local community/infrastructure and on the environment were important drivers to this strategic document.
  Past achievements of the previous strategy that relate to the negative impacts from overtourism were
    - *Traffic*: systematic removal of car traffic from the Lake Bled basin through the construction of bypass roads and remote parking lots, introduction of electromobility and seasonal public transport
    - *Waste management (Zero-Waste Bled)*: The municipality is leading in Slovenia regarding their waste management and on the ambitious way to become a zero-waste municipality. The goal is i.a. to have a tourism industry without disposable plastics and accelerate the transition to a circular economy in general. With the motto "Bled is the image of paradise and we would like to preserve it" a broad

Information campaign with videos, map with tap water/fountain locations, implementation of an electric boat for cleaning the lake surface, which removes organic waste such as leaves as well as man-made pollutants was launched (Lake Bled's Ecosystem, 2019).

- *Ecology*: upgrades to local sewage system

These achievements will further be strengthened. The new strategy foresees the following three strategic projects (out of 10) that directly address the challenges from overtourism:

- *Rehabilitation and sustainable management of Lake Bled*: establishing a coordination body for lake management (incl. carrying capacity evaluations), ecological restoration, landscaping and green areas, strengthening management and control of bathing and boating, reduction and removal of motorized traffic along the lake, awareness/communication
- *Management of pressures on the environment, climate, natural resources and the ambience of Bled:* more systematic monitoring of the state of the environment, coordinated and balanced spatial development through better inter-municipal cooperation and preparation of a common expert bases for spatial planning (especially regarding tourism in Bled-Radovljica-Gorje-Jesenice), upgrading and digitization of waste management towards a Zero-Waste Municipality (at the household level as well as in tourism and other industries)
- *Integrated mobility management and governance:* reduction of motorized traffic and diversion from protected areas of the lake and settlements to relief roads and promote soft forms of mobility. Cooperation with the largest traffic generators (hotels, points of interest in the municipality and the area of influence) and partners (Tourism Bled, Slovenian Railways, bus carriers, new providers of alternative forms of mobility) planned and actively (re) directed traffic in the high season and built individual elements of mobility system. Establish a 'park and drive' car park network, upgrading the infrastructure for e-bikes and e-vehicles, digital support. Further, a new cycle path between Bled and Bohinj will also contribute to the reduction of motor traffic establishing safer cycling connections between the neighbouring municipalities
- *Sustainable and quality transformation of tourism:*
    - **Governance**: formal transformation of the DMO *Turizem Bled* into a public institution to strengthen destination management functions support this transition with appropriate human and financial support for development activities.
    - **Seasonality**: seasonal adjustment with emphasis on the development of competitive winter products, deconcentration or redirection of visits at the level of the municipality and the region, the municipality will tackle the key challenge of influencing uncoordinated investments in the expansion of tourism accommodation. integration of discounts and products for local citizens into the Bled card
    - **Repositioning**: from a "must see" destination (organized groups on a short stop in the framework of multi – day tours in the Alpine or Central European space), to a "must experience" destination where you come on holiday (relaxation, activities, exploring the wider region – longer stay). This is achieved by a focus on achieving higher quality (vision: 5-star boutique experiences) throughout the value chain and strengthening the offer of outdoor activities (e.g. cycling, hiking, themed trails) and culture (e.g. investment in culture is another strategic project of the overall strategy) to strengthen off-season months (e.g. "Bled in Winter" concept). This also entails a re-focus of markets and segments to move away from oversea dependency to more local source markets and use a lifestyle segmentation approach to marketing. Create a socially responsible marketing (which addresses more socially active and responsible consumer)

- **Management of geographical and temporal tourist flows**: planned carrying capacity study, specific management as done in the Vintgar Gorge in 2020 (shuttle bus, pre-purchase of entry tickets to the gorge (10€) with regulated capacity, designated parking, redesigning of hiking path to one-way directions to reduce crowding, new signage)
- **Green Destination**: special promotion of providers with environmental certificates, implementation of the Bled Joint Green Commitment, strengthen communication about responsible tourist behaviour (e.g. special leaflet/video that encourages visitors to act and live sustainably during their stay in Bled)
- **Coexistence and inclusion of locals***:* "Ask me, I'm local" initiative, regular annual surveys of the attitude and satisfaction of locals with tourism

Further measures that promote sustainable tourism in Bled:

- **Green Scheme of Slovenian Tourism (GSST)**
  Bled has qualified for the Slovenia Green Destination (Gold) Label, the second highest distinction. The neighboring destination Bohinj in the Julian Alps carries as the only destination in Slovenia even the highest, Platinum Label.
- **Green mobility:**
  - information website for visitors and locals with everything regarding mobility https://map.e-bled.si/
  - Bled Green Ways bike rental system
  - Hop-on Hop-off bus (available in July and August to explore wider surroundings of Bled)
  - construction of the cycling route connecting Bled to Bohinj
  - Parking signage: system which informs users already by the main road about the availability of parking spaces and at the same time directs traffic to parking areas outside downtown Bled based on this information
  - new measures taken to withdraw traffic from the lake bowl (road block of the road going through Zaka)
  - Julian Alps Card
- Cooperation with Julian Alps on joint development and marketing activities (e.g. recently opened Juliana trail, encircling the Triglav National park, to ease the pressure on the mount Triglav itself, joint ski pass, cycling trails) (Schuh et al., 2020)

- **Different small initiatives:**
  - Public Lido Grajsko kopališče Bled has developed organic vegan sun cream in 2019, available free of charge for the lido users and aims to reduce the negative human impact, bathers are making to the lake water. The sun cream does not contain artificial oils and nanoparticles. Furthermore, the lido is awarded the Blue Flag eco-label (dealing with Water Quality, Environmental Education and Information, Environmental Management, and Safety).

Innovative aspects
What are unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?
- Strong alignment between the municipal and tourism development towards more sustainability. - Transformation of the local DMO from a private institution to a public one to better fulfil the mandate of destination development.
Impact measurement
Do you measure the effectiveness of the strategies/measures implemented? How?
Within the scope of the green destination certification the destination has to be regularly recertified (every three years) and all 100 criteria of the certification are assessed on a regular basis. Further, the different sustainability strategies have defined a set of measures and also smart goals that will be monitored.
Challenges & success factors
What were the central challenges when planning, developing, and implementing the measures? **What were the central success factors when planning, developing, and implementing the measures?**
Success factors: - High level of consensus among residents on a sustainable development path plus other global and national trends/efforts support sustainable transition (e.g. Slovenian Development Strategy 2030, 2017–2021 Strategy for the Sustainable Growth of Slovenian Tourism, Green Scheme of Slovenian Tourism) **Challenges:** - Certain environmental challenges cannot be solved by local government, thus the municipality of Bled has asked national government for support in dealing with environmental issues (e.g. adoption of new lake protection law)
Transferability to other destinations with similar characteristics
What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?
The case of Bled illustrates the importance of a holistic approach to overtourism challenges. It addresses this sustainability challenge from different angles and provides a wide range of solution approaches ranging from infrastructure projects, ecological measures, capacity caps, awareness creation, strategic positioning and product development to local community inclusion initiatives. The two important players in tourism management (the local DMO and the municipality) align their strategic documents and reinforce each other.

6. Monitoring/indicators

Monitoring of overtourism situation
Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?
Monitoring is mainly based on the Green Destination Standards (GSTC accredited) which is part of the national sustainability initiative Green Scheme of Slovenian Tourism initiated by the Slovenian Tourist Board STO (national DMO). The designated green coordinator of the local DMO (Turizem Bled) is in charge of the monitoring. However, the recently published strategy of the municipalities indicates in various section the goal to implement better monitoring systems and evaluate carrying capacities. Thus, there is definitely an acknowledgment for the need of a sound database to evaluate the success of the different measures and base future decisions on.

Indicators used
What are indicators used for the observation? Which indicators have proven successful?
No details available on this aspect

Specific indicators
Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?
No details available on this aspect

Challenges and success factors of the monitoring
What are the challenges and success factors of the monitoring system/the indicators?
No details available on this aspect

Additional comments on monitoring/indicators: Are there other important aspects regarding the monitoring?

7. Management of the pandemic

Changes due to the pandemic

What has changed due to the pandemic? How has the pandemic influenced the tourism development?
How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?

The pandemic has showed the importance of a resilient tourism industry. In the recently published sustainable development strategy of the municipality the pandemic has been described as a catalyst to further push a sustainable transition in tourism. The comprehensive survey among the local population and various stakeholders in preparation for the strategy confirmed the willingness of the different stakeholders to follow through this path more consistently. The aim is to reduce dependency on Asian and other overseas markets and reposition the destination from "must see" which has a rather short stay connotation to "must experience" which tries to attract visitors that spend a longer period of time in the destination and engage in a broader set of activities.

8. Outlook & Additional Comments

Expected future changes

What are the expected changes in the future tourism development? What are the plans for post-covid tourism?

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

Long expected recovery of tourism after c-19 due to dependency on Asian markets could lead to a potential rise in unemployment

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

Sustainability challenges like overtourism are complex and often go beyond the traditional marketing mandate of tourism organisations. Tourism is a cross-sectoral industry and cannot be evaluated, planned and managed in isolation. The case shows how active cooperation and alignment between tourism organisations and local political authorities can positively push this agenda forward.

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Dolomites

1. General Information about the destination

Case study item	Information	Data source
Destination name	Dolomites Region Three Peaks (Drei Zinnen/Tre Cime di Lavaredo)	
Destination type	Mountain	
NUTS 3 Level	ITH1 – Bolzano-Bozen ITH3 – Veneto	
Country	Italy	
Region	The case study region is part of the provinces Belluno and Bolzano	
Tourist area size (km2)	2.071 km² (Pustertal – Val Pusteria)	
Population		
inhabitants in destination	Braies: 674 Three Peaks: no inhabitants Pustertal – Val Pusteria: 83'747	(Dolomiti UNESCO, 2020)
inhabitants in tourist centre/ core area	Not applicable (inhabited mountain area)	
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	GDP contribution of tourism in Italy: – 13.1% of total GDP (2019) – 7% of total GDP (2020) Employment in tourism in Italy: – 15% of total employment (2019) – 13.8% of total employment (2020)	(WTTC, 2021)
Importance of tourism in destination (GDP, employees)	GDP contribution of tourism in South Tyrol: – 8.2% of total GDP (2019)	(de Rachewiltz et al., 2019)
tourist arrivals in destination (2015-2019)	from 434'000 (2015) to 531'000 (2019) --> increase of 22.4% (Numbers for the region: Three Peaks Dolomites)	(ASTAT, 2021)

overnight stays in destination (2015-2019)	1’959’000 (2015) to 2’249’000 (2019) --> increase of 15% (Numbers for the region: Three Peaks Dolomites)	(ASTAT, 2021)
day visitors, park entrances, cruise arrivals etc.	Lake Braies: 1.6 million per year (up to 17’400 visitors per day) Three Peaks: up to 13’400 visitors on peak days	(Dolomiti UNESCO, 2020)
% tourism growth over the last 10 years	**Pustertal – Val Pusteria**: Arrivals 2009: 1’620’584 Arrivals 2019: 2’247’110 --> 39% increase Overnights 2009: 8’761’045 Overnights 2019: 10’431’438 --> 19% increase	(ASTAT, 2021)

Tourist intensity in 2019 (overnights/resident for the tourist area)

125

Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)

5037

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

The site of the Dolomites entails a mountain range in the northern Italian Alps through the provinces of South Tyrol/Südtirol, Trento and Belluno with a total of **18 peaks which rise to above 3,000 metres** and cover 141,903 ha. There are seven tourism regions within the Dolomites (Three Peaks, Alta Badia, Val Gardena, Seiser Alm, Eggental, Villnösstal, San Vigilio). 95 % of the **Dolomites fall within a protected area**, such as a national park and nature parks (Südtirol, 2021). **In 2009 the Dolomites were listed by UNESCO as a World Heritage Site** and nine systems are making up the UNESCO Dolomites (see Figure 23).

The focus of this case study is on the northern region. The Sesto-Cadini Dolomites are in the far north-eastern part of the Dolomites, featuring peaks of more than 2,000 metres above huge rocky high plateaus. Situated in this area are the triple peaks of Tre Cime di Lavaredo, one of the most well-known and iconic chains of the Dolomites. Thus, north-eastern part of the Dolomites was chosen as within this system there are some of the most popular areas in the Dolomite Region with excessive visitor pressures such as the Lake Braies (Pragser Wildsee/Lago di Braies) and the Three Peaks (Drei Zinnen/Tre Cime di Lavaredo). The general overcrowding, queues and noise have an impact on the environment, and affect the quality of the visits and the quality of life of local people.

2. Tourism development

Tourism Development

How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic?

Short description of recent development

After continuous growth in the last years, the tourism and accommodation sector was heavily affected by Covid-19 crisis. Even though overnight stays slowly increased again during the summer 2020 season, the overall value added created by tourism still lies well below pre-crisis levels. However, during the crisis the experience in nature was popular and therefore, the reduction in tourist numbers in different hotspots of the Dolomites were not as extreme as for example city destinations have experienced the impact from the pandemic.

Visitor segments (Share and/or numbers)

What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? Characteristics, share of international visitors etc.

Main source markets in South Tyrol are Germany, Austria, Switzerland, and Italy

- In 2019 the main visitor segments (arrivals) in the Three Peaks Dolomites region were Italians (59.5), Germans (22.2%), Austrians (3.5%) and Swiss (2.4%). The Italians make up a larger percentage than in other regions in South Tyrol (on average only 33.5% of arrivals are from Italy)
- The average length of stay in South Tyrol amounts to 4.4 days, a number that has steadily decreased over the last few decades (de Rachewiltz et al., 2019)
- According to a study by the University Ca’ Foscari Venezia in 2018, 26% of visitors were day visitors and 74% overnight tourists

Temporal distribution/seasonality

When are the temporal peaks (if any)? How is the seasonal distribution of visitors?

Explanation and numbers (if available)

- There are peak seasons in summer and winter, when the weather is ideal for the practice of outdoor activities such as hiking, mountain biking, and skiing.
- Summer season (May – October) is stronger than the winter season and contributes a little over 60% to yearly tourist arrivals and the month August is the strongest in terms of overnight stays (32% of summer overnight stays fall into August)

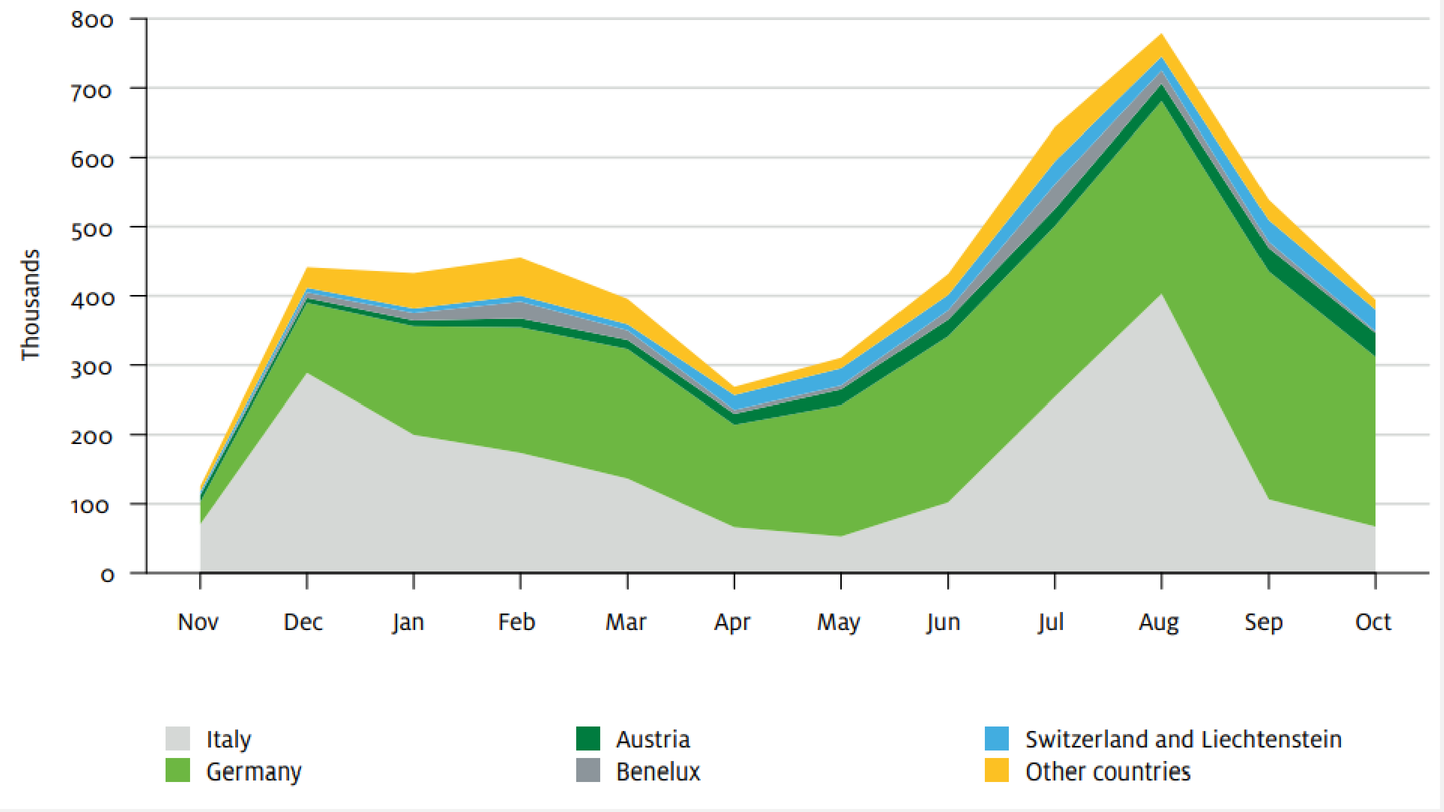

Figure 23: Tourist Arrivals in South Tyrol, 2008 – 2019, monthly averages (de Rachewiltz et al., 2020)

Spatial distribution

What are the tourism hotspots? How is the spatial distribution of visitors?
Explanation and numbers (if available)

Within the Dolomites there are different tourism hotspots. This case study focuses on the two most prominent one: Lake Braies (Pragser Wildsee/Lago di Braies) and Three Peaks (Drei Zinnen/Tre Cime di Lavaredo). Furthermore, as the impacts of these two hotspots are rather severe but the implementation of concrete measures are difficult due to local economic interests, the UNESCO Foundation commissioned a study with the Department of Economics of the Ca' Foscari University of Venice to establish a scientific basis on the overtourism situation the two hotspots *Lake di Braies* and the *Three Peaks* have been studied as pilot areas to better understand visitor flows and carrying capacities. Following first results have been shared:

Lake di Braies: *"…the number of visitors in June-September 2018 far exceeded the carrying capacity of the site, with peak days of over 17,400 people per day, and visitor density of up to 188 people per hectare. […] If the Lake Braies area is considered as a natural park, the limit recommended by the World Tourism Organisation is 1,500-2,500 visitors per day, or 4,500-6,000 visitors per day if regarded as a hiking area."*

Three Peaks: *"…the data indicated peak visitor numbers of over 13,400 people per day. A possible wake-up call is that visitors' assessment of the quality of their experience is becoming less positive, especially on days when the sites are overcrowded. […] if considered as a natural park, the recommended limit in terms of natural carrying capacity is 2,700-3,000 people per day, and 7,000-7,500 people per day if regarded as a hiking area."*

The study is currently being finalized and should be publicly available at the end of 2021.

3. Tourism management in the destination

Organisation of tourism & stakeholders

How is tourism in the destination organised? Which authorities are responsible for tourism?
Who are the central stakeholders involved in tourism management and development? Is there a monopolisation/dominance of certain businesses? What are the responsibilities of the different stakeholders?

<u>IDM Südtirol/Alto Adige</u> (Regional Destination Management Organisation) (IDM = Innovation, Development and Marketing)
IDM manages since 2004 the Umbrella brand "South Tyrol" IDM South Tyrol actively promotes South Tyrol as a tourist destination in eleven European markets by means of both targeted promotional campaigns and public relations and co-marketing activities. IDM also defines strategies and measures aimed at continuously strengthening the destination. With data analysis, market research and new digital strategies, IDM is looking to the future of tourism and guiding South Tyrol towards the latest trends.
In 2017 South Tyrol issued a strategy for 2030 that contains several trends and measures relevant for tourism development. The strategy, Zukunft Tourismus Südtirol 2030 (Pechlaner et al., 2017), consists of 20 deployment plans: almost half of them relate to sustainability issues. These cover topics

related to environmental sustainability (e.g. transport, cross-sectoral relationships to enhance the consumption of regional products, de-seasonalization) and social issues (e.g. quality of employment in tourism, quality of life for local communities).

3 Zinnen Dolomites (local DMO)
Local tourism organisation responsible for destination marketing.

UNESCO Foundation
The provincial and regional authorities of five Italian provinces (Belluno, Bolzano, Pordenone, Trento, Udine) and two regions (Friuli Venezia Giulia and Veneto) charged with managing the Dolomites World Heritage Site made a commitment to UNESCO by setting up the Fondazione Dolomiti – Dolomiten – Dolomites – Dolomitis UNESCO.

The main mandate of the foundation is to ensure the effective, coordinated management of the Dolomite property. The Foundation is the single point of contact with the Italian Ministry for the Environment and with the UNESCO World Heritage Site Committee and its job is to encourage communication and collaboration between the local authorities that manage and administer, according to their individual regulatory frameworks, the territory recognised by UNESCO as a World Heritage Site.

While the provincial and regional authorities each retain their own administrative and governmental powers according to current legislation, the Foundation plays a fundamental role in coordinating and harmonising management policies for the Dolomite property, with the aim of devising a common strategy. Since 2016 there is an Overall Management Strategy in place based on the principle of networked management on specific themes relevant to the property, such as its geological heritage, landscape heritage, protected areas, the promotion of sustainable tourism, socio-economic development, mobility, education and scientific research. Every six years the UNESCO World Heritage Centre monitors the state of conservation and the management of the site, calling on a team of experts from IUCN (The International Union for Conservation of Nature). (UNESCO, n.d.)

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

In general, the Dolomites region is rather disaggregated as it falls into the jurisdiction of 2 regions and five provinces and many more municipalities. The main responsibility to initiate measures is generally at the level of the municipality and the local tourism/marketing organisations (principal of subsidiarity). The UNESCO foundation has a role to guide and advise suitable development but the interests that guide local decision-making is diverse. (L. Patuzzi, personal communication, July 22, 2021)

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers

What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (root causes, new trends, result, destination factors etc.)

- The Lake di Braies has been the filming location of 'Un passo dal cielo', an Italian television series which appeared for the first time on the Italian television in 2011. This popular series was and still is a big driver for Italian tourists to visit the region.
- High "instagramability" of the hot spots Three Peaks and Lago di Braies (#trecimedilavaredo: ~200K posts, #dreizinnen: 104K posts, #lagodibraies: ~380K posts, #pragserwildsee: ~100K posts) (Cagnina et al., 2019)

Impacts

What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders?

Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?

- Overcrowding
- Traffic jams
- Noise
- high prices
- inadequate infrastructure in peak seasons
- a lack of services and job opportunities in shoulder seasons

Stakeholders affected

Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)

Nature (e.g. environmental impacts, water usage), local community (e.g. traffic jams, air quality)

Capacities & bottlenecks

What are the central capacity challenges and main bottlenecks?

In South Tyrol, 85.5% of incoming tourists enter the region by means of private transport and 55.7% use these means to travel around during their vacation. This leads to a high pressure on the local road infrastructure capacities, which are often overstretched during peak summer days and weeks with negative consequences not only for the tourists (e.g. waiting time) but also considerable challenges for the local community (e.g. getting to work on time due to traffic jams, passing through of ambulances in medical emergencies) (de Rachewiltz et al., 2020)

Additional comments on the overtourism situation

Are there any other important aspects to understand the unbalanced tourism situation in the destination?

As in many other destinations with unbalanced tourism growth a conflict of interests between local stakeholders can be observed. A main trade-off of measure that could control the situation would be a loss of economic value creation (at least in the short term). Thus, local political authorities that would have the regulatory power to initiate changes have been hesitant as the tourism industry is an important contributor to the local economy and local entrepreneurs try to fight against further capacity or expansion restrictions. (L. Patuzzi, personal communication, July 22, 2021)

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism

What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved?
What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?

There are several ongoing initiatives that have a sustainable tourism transformation as goal. The UNESCO foundation has commissioned a study to scientifically underpin their attempts to better protect the heritage site by managing/restricting visitor flows in hotspot location. Based on these rather pressing results the need for action from political actors has become more evident. Therefore, the province of South Tyrol, the municipality of Braies and IDM elaborated the *Plan Prags* (for the first time in 2019). This is an initiative that directly tries to regulate overtourism via the access restrictions to the Lake Braies in combination with further green mobility advances.

- **<u>Scientific Study: Sustainable Management of Visitor Flows</u>**: The hotspots Lake Braies and Three Peaks were selected as pilot areas. Limiting their load capacity has been the central theme of the study by the UNESCO Dolomites Foundation and the Department of Economics of the Ca' Foscari University of Venice. The researchers examined data from 2018 – 2020 in relation to the pilot areas, and big data (anonymized and aggregated data from mobile phones and social media) derived from Vodafone Analytics, TripAdvisor, ISTAT and Bank of Italy. Combining these sources with a series of interviews, they were able to assess the impact of annual visitor flow in the two areas, evaluate their respective carrying capacities (in environmental, social and economic terms). In 2018 all these estimated carrying capacities (natural and social) have been surpassed and the necessity of measures to be taken has been emphasized. Importance of a scientific basis (e.g. visitor flows) is underlined for effective measures and also as a wake-up call to do more to ensure a sustainable development. (UNESCO, 2020) This study has initiated the important process of monitoring.

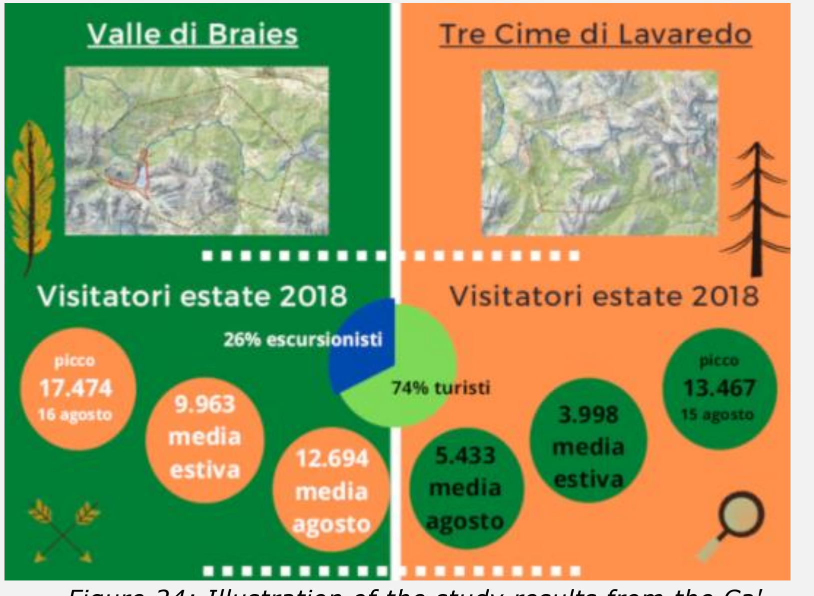

Figure 24: Illustration of the study results from the Ca' Foscari University of Venice (2020)

- **<u>Plan Prags 2020 – Expansion of sustainable mobility options and access restriction of cars to the Lake Braies:</u>** The Province of South Tyrol, the Municipality of Braies and IDM elaborated a collaborative plan to expand the offer of environmentally friendly transport in the region and restrict access to Braies Lake. Parking space, restaurant and shuttles to the lake has to be reserved and paid beforehand. Additionally, an expansion of bike rentals and corresponding bicycle parking along the lake is ongoing. This plan is based on the results of the above-described study by the UNESCO foundation and Ca' Foscari University of Venice.

The **access restrictions** have been introduced for the first time in the summer season 2019 and are continually improved and expanded. Currently, from July to September between 9.30 AM and 4.00 PM, the Pragser Valley can only be reached by public transportation, on foot, by bicycle or on presentation of a parking space reservation or a valid transit permit. Once the parking spaces are full and shuttle is fully booked, the lake can only be accessed by foot or bicycle. Holidaymakers staying in an accommodation in the Pragser valley receive **a travel permit for the entire duration of their stay**. A direct measure to manage the intense traffic flows from private mobility and offer relief to the local community to better manage their daily life (e.g. getting to work without traffic jams). The access restriction with the shuttle bus has after a successful test period been extended to other destinations in the Dolomites with high visitor pressures (e.g. Plätzwiese High Plateau, Three Peaks) (for further information: https://www.prags.bz/en)

Figure 25: Illustration of the mobility concept (IDM, 2020)

Further Initiatives in the destination that promote sustainable tourism/deal with the overtourism situation:

- **#Dolomites2040**: Furthermore, the UNESCO foundation initiated in 2015 a participatory process that contributed to the creation of the Site Management Strategy (Morandini, 2021)
- **Dolomeyes**: Information campaign to promote a more responsible tourist behaviour in the mountains. Short videos of tourists visiting the region and the "Dolomeyes" monster that lurks in the background and intervenes when the guests behave irresponsible or put themselves in danger. The monster gives advice to the visitors under the #dontbeamonster.

Figure 26: Example of the awareness campaign with the mascot "Dolomeyes" (Dolomites UNESCO, 2021)

- **Functional Networks of the UNESCO foundation**: The UNESCO foundation is due to the dispersed location and complex organization of the heritage site organized in a structure of five operating networks whereas each network specializes in a specific topic. There are two networks - Network for the Promotion of Sustainable Tourism and the Network of Socio-Economic Development, Sustainable Tourism and Mobility that specifically engage in sustainable tourism topics. One of the Network has appointed the EURAC in Bolzano, to carry out an analysis of the traffic and its impact on the main Dolomite Mountain passes. The aim of this study is to create a knowledgebase to enable the competent authorities to set out a possible strategy for managing the main Dolomite passes. (UNESCO, n.d.)

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- **Green Mobility Südtirol – Alto Adige**: Umbrella brand for all measures, projects and events implemented in South Tyrol in the field of sustainable mobility. The Roadmap Smart Alpine Mobility from Fraunhofer Italia gives guidance for concrete action. Detailed information can be found in the final report.

Innovative aspects

What are unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?

Visitor flow management and calculation of current visitor with the usage of mobile phone data (login through mobile communication antenna)

Impact measurement

Do you measure the effectiveness of the strategies/measures implemented? How?

The initiated monitoring of tourism flows via mobile phone data will be continued for the upcoming years to evaluate how the access restrictions and sustainable mobility advances influence the visitor amounts. Currently the destination aspires a reduced number of 4’000-4’500 day visitors instead of the previous average number of 10’000 visitors per day at Lake Braies.

Challenges & success factors

What were the central challenges when planning, developing, and implementing the measures?
What were the central success factors when planning, developing, and implementing the measures?

High complexity of the Dolomite property, in cultural, linguistic, and administrative terms. There are many different municipalities, provinces and regions involved in the UNESCO Dolomites area. This demands a great coordination effort and

Transferability to other destinations with similar characteristics

What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?

This case shows the importance of an independent and transparent analysis of the current situation (e.g. through scientific studies commissioned to universities or other research facilities). This allowed to raise awareness and initiate change on various administrative levels.

6. Monitoring/indicators

Monitoring of overtourism situation
Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?
Sustainable Tourism Observatory of South Tyrol (STOST): belongs to the United Nations World Tourism Organization (UNWTO) International Network of Sustainable Tourism Observatories (INSTO), a network of organizations monitoring the economic, environmental, and social impact of tourism at the regional level. The governance of STOST is shaped by many different actors within and outside the destination. The observatory has been installed by the Center for Advanced Studies at Eurac Research in cooperation with the local destination management organization IDM and the provincial government of South Tyrol. The annual report gives an overview and detailed information about the observatory and can be assessed here.
Indicators used
What are indicators used for the observation? Which indicators have proven successful?
A total of 29 indicators are monitored in different areas (whereas UNWTO predefines nine mandatory issue areas): 1. Tourism Seasonality (Tourist arrivals by month and market, Number of tourist arrivals occurring in peak months/weeks by municipality) 2. Employment (% of employees in the accommodation and food service sector/by citizenship, % of female enterprises) 3. Destination Economic Benefits 4. Governance 5. Local Satisfaction 6. Energy Management 7. Water Management 8. Wastewater (Sewage) Management 9. Solid Waste Management 10. Further issues that are monitored in South Tyrol: Mobility, Nature Conservation and Land Use and Landscape Diversity. For further details of the STOST please refer to their extensive annual report from 2020.
Specific indicators
Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?
Local and visitor satisfaction - Tourism intensity index – indicates how much an area is exposed to tourism. The tourism intensity index is obtained by dividing the number of overnight stays in all types of accommodation facilities by 365 days and then by the resident population - Prices of rents in the central area of touristic and non-touristic municipalities - Tourist satisfaction with prices by season (survey by ASTAT and Eurac Research)

Number of day visitors

- approximated with mobile phone data (see research from Ca' Foscari University in Venice, publication of the study is currently in preparation)

Challenges and success factors of the monitoring

What are the challenges and success factors of the monitoring system/the indicators?

The monitoring via mobile phone data (collaboration with Vodafone) is rather costly and financing over a longer time horizon is still outstanding.

7. Management of the pandemic

Changes due to the pandemic

What has changed due to the pandemic? How has the pandemic influenced the tourism development?

How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?

In the summer season 2020 there has already been an access limitation to the Lake di Braies in place, however, the demand for outdoor experiences in beautiful natural landscape has remained high even with the situation of the pandemic.

8. Outlook & Additional Comments

Expected future changes

What are the expected changes in the future tourism development? What are the plans for post-covid tourism?

Now the scientific basis is rather clear, and the measures need to be taken to protect the natural landscape but also the identity and satisfaction of the local community.

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

In 2026 the Olympic Games will be held in the Dolomites. This will require the expansion of certain infrastructure and might challenge certain advances regarding overtourism measures. Therefore, how sustainability aspects will be considered in holding such a prestigious event remains critical.

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

Coordination and collaboration are key for destinations that have complex organisational structure and many different stakeholder layers involved. Further, to make an argument for solution approaches better heard it can help to scientifically monitor and evaluate the current situation.

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Rigi

1. General Information about the destination

Case study item	Information	Data source
Destination name	Rigi	
Destination type	Mountain	
NUTS 3 Level		
Country	Switzerland	
Region	Central Switzerland	
Tourist area size (km2)	around 90 km2	Switzerland Tourism (2016)
Population		
inhabitants in destination	There are nine communes around the Rigi with a population of 56,632 (2014): • Küssnacht/Immensee/Merlischachen (12,426) • Arth/Oberarth/Goldau (11,062) • Lauerz (1,060) • Greppen (1,043) • Weggis (4,242) • Vitznau (1,249) • Gersau (2,169) • Ingenbohl/Brunnen (8,640) • Schwyz/Seewen/Ibach/Rickenbach (14,785) The area of Mount Rigi is dived into two separate Cantons:	Rosenberg-Taufer and Huilla (2017:123) Bundesamt für Statistik (2016). Bilanz der ständigen Wohnbevölkerung nach Bezirken und Gemeinden, 2014. Neuchâtel: BFS. BHP Hanser und Partner AG (2015:5)

	• The Canton of Lucerne defines its side of the Mountain as "Region Weggis Vitznau Rigi" which counts with 6'534 inhabitants (BHP Hanser und Partner AG 2015: 5). • The Canton of Schwyz defines the region on its cantonal side as «Rigi – Mountain and Lake» with 28'740 inhabitants (Burri et al. 2020:15).	Burri et al. (2020:15).
inhabitants in tourist centre/core area	Approx. 115 permanent inhabitants on the mountain	Gemeinde Weggis (Interview, Representative of the RigiPlus AG)
Importance of tourism in country (GDP, employees) according to WTTC Economic Impact reports	GDP: 7.4% (2019), 4.9% (2020) Employees: 493.5 (2019), 453.3 (2020) jobs in 1000	**https://wttc.org/Research/Economic-Impact**
Importance of tourism in destination (GDP, employees)	• Tourism on the cantonal Lucerne side "Region Weggis Vitznau Rigi" accounts for 1'037 FTE (44% of all FTE) which generate a GDP of CHF 71.1 Mio (35% of all GDP) • Tourism in the cantonal Schwyz side "Rigi – Mountain and Lake" accounts for 815 FTE (8,2% of all FTE) which generated a GDP of CHF 61 Mio. (4.5% of all GDP)	BHP Hanser und Partner AG (2015:26) Burri et al. (2020: 35).
tourist arrivals in destination (2015-2019)	2015: 785,000 persons* 2016: 780,000 persons 2017: 850,000 persons 2018: 1.6 million Persons (including for the first time the frequencies from cable car LKRS (LUFTSEILBAHN KRÄBEL-RIGI SCHEIDEGG) 2019: 1.87 million persons 2020: 1.05 million persons	Business reports of RBAG of respective financial year (*Please note: Numbers are indicating the frequency of mountain railway, not the tourist arrivals)
overnight stays in destination (2015-2019)	2018: 295'511 2019: 288'670 2020: 218'675	For Weggis Vitznau Rigi (Bundesamt für Statistik)
day visitors, park entrances, cruise arrivals etc.	See tourist arrivals (above)	
% tourism growth over the last 10 years		

Tourist intensity in 2019 (overnights/resident for the tourist area) if available otherwise not available		
Tourist density in 2019 (overnights/km2 for the administrative tourism area as per previous statistic in this section)		

Short Description of the case (max. 250 words)

short description how tourism is a physical management challenge due to large, frequent or occasional arrival volumes

Mount Rigi is an excursion mountain located in sight-distance from the City of Lucerne and is attracting visitors from all around the world for over 200 years. The mountain took a pioneering role in tourism development by building Europe's the first mountain railway in 1871. **The mountain is car-free** (expects for agriculture) and **only accessible by foot, coq-railway, or cable-car** from three departure spots Weggis, Vitznau and Arth-Goldau. This renders the mountain on one-side well manageable in terms of visitors flows, on the other side leads to congested train compartments at peak times. As the mountain is **popular for international group travelers and individual excursionists** from more regional home markets alike, interest conflicts sometimes arise. Also, some exponents of the about 115 inhabitants of the village Rigi-Kaltbad struggle with the plans of the mountain railway company Rigi Bahnen AG (hereafter RBAG) to further develop infrastructure which in their opinion leads to unhealthy markets growth and increased touristification of the mountain. **A recent petition called "NO! to Rigi-Disney-World**" was thus launched in 2017 and raised not only over 3'000 backing signatures but also broad interest in regional and national media. To mitigate the conflict, a roundtable was convoked to bring the different stakeholders together. Out of this round-table discussion a "Charta Rigi 2030" emerged, which has been signed by all involved parties and is currently implemented in various projects and measures. Further to that, specific indicators **to better monitor tourism development as well as a participation process for systematic involvement of relevant interest groups are determined.**

Additional general remarks

While writing this case study, the implementation process of the **"Charta Rigi 2030"** is still in process. Therefore, only information about the current status and intended plans are able to be delivered. A follow up of the process is possible at www.rigi.ch/rigicharta2030.

2. Tourism development

Tourism Development
How has tourism developed (in the last years before the pandemic)? What has changed due to the pandemic? **Short description of recent development**
The last five years were all hallmarked by regular record-breaking growth rates in visitor numbers. As the RBAG business reports of the respective years state, this is mostly due to the significant growth rates of international markets. The steadily increase of visitor numbers led to heightened financial turnover, which is not only fed by the transportation business, but also by gastronomy and souvenir sales. In 2018, for the first time the amount of visitors **topped the 1 million mark** and growth seemed to continue – up until when in spring 2020 COVID-19 led to a drastic drop in the number of guests. For almost three months, the railways were only in operation for the local population; the international guests stayed off until the time of writing. This resulted in a decrease in frequencies by 44% to 1.05 million. Net sales fell by 34% to 19.04 million CHF (RBAG 2020:28).

Visitor segments (Share and/or numbers)
What are the main visitor segments? Who are the main countries of origin? What are their motives? Guest behaviour? **Characteristics, share of international visitors etc.**
Rigi Mountain is nationally and internationally popular: In **2014, 80% of Rigi guests came from Switzerland and 20% from abroad** (RBAG 2014:13), in 2016, it has been 70% from Switzerland and 30% international guests (RBAG 2016: 31). This ratio gradually changed to **today's guest mix of 60 % Swiss and 40% international guests** (RBAG 2019: 6). There is no exact data on specific country of origin, but as stated in the marketing plan as of 2017, the principal markets are Switzerland, China, and South-Korea (RBAG 2017:28). Whereas the Swiss market is mainly characterized by individual travellers, Asian tourists tend to travel mainly in groups. However, exceptions exist in both segments: Many Swiss school classes and leisure associations (music, gymnastics, etc.) visit Rigi as a group, whereas a general trend for increased individual travelling is observed in the Asian market (Stettler et al. 2019). RBAG stated that half of the 40% international guests are travelling with the "Swiss Pass". This is package deal for individual travellers using public transport across all Switzerland. The main motives differ largely: Whereas international group tourists on a short stop-over between Italy (Rome, Venice) to France (Dijon, Paris) are mainly interested in a quick selfie-pic of the mountain view and the purchasing of souvenirs, individual travellers use the mountain for recreational practices, including walking, wellness, and gastronomy.

Temporal distribution/seasonality
When are the temporal peaks (if any)? How is the seasonal distribution of visitors? **Explanation and numbers (if available)**
Tourism on Mount Rigi foremost takes place in the **summer months**. However, tourism exists all year round on Mount Rigi. Depending on the weather condition Autumn can attract a lot of visitors. In winter, there are some smaller ski-lifts mainly targeting local families and a well-developed network of snowshoe walking trails. Most visitors enjoy easy winter strolls over the sea of fog. The slowest season is Spring. Most of hotels and restaurants are open all year.
Temporal distribution of Swiss and international guests is structured often similarly. Visitors from home and afar are visiting the mountains primarily in the **mornings, by nice weather, in summer month**. RBAG aims to disentangle these visitors flows by encouraging international visitors to take an earlier

train (between 8AM and 10AM), and Swiss hikers from (10 AM onwards). Also marketing activities promote spring and early summer (April, May, June) for international guests, when Mount Rigi is not so popular for hiking.

Spatial distribution

What are the tourism hotspots? How is the spatial distribution of visitors?
Explanation and numbers (if available)

Visitor flows are accumulating on the **mountain top, the so-called Rigi-Kulm**, where the terminal station of the main RBAG lines, a hotel, a self-service and à-la-carte restaurant and a souvenir shop is located. Most group tourists aim the mountain top as their final destination. But not all guests are visiting the mountain top on 1797 meters above sea level, which offers the famous 360-degree panorama round-view. Some visitors pause at Rigi-Kaltbad, an intermediate stop on 1433 meters above sea level, where several hotels and restaurants, a wellness spa (designed by world famous Swiss architect Mario Botta), kid's playgrounds and theme trails are located. Mount Rigi is an easy hikeable mountain with vast offers on well-maintained hiking trails for all levels.

First time visitors (no matter of group or individual, Swiss or international) tend to ascend Mount Rigi on its top, as this is regarded as "a must". Whereas second- and third-time visitors are more open and explore also more remote areas of the mountain. This is regarded as an advantage as visitor flows can thus be better separated.

Additional tourism figures

Are there any other important numbers/aspects to understand the tourism situation in the destination?

The increased focus on the Asian travel market was also made obvious in a partnership between Mount Rigi and the Chinese mountain Emei Shan in Sichuan province. Since 2009 both mountains connect through a strategic alliance, which also entails a symbolic stone of each other's mountain (of approx. 1 ton) on their respective mountain top. This underlines the importance of the partnership and makes it clearly visible for all summit visitors (see also Eggli et al. 2020:181).

3. Tourism management in the destination

Organisation of tourism & stakeholders

How is tourism in the destination organised? Which authorities are responsible for tourism?
Who are the central stakeholders involved in tourism management and development? What are the responsibilities of the different stakeholders?

Mount Rigi is located in a fragmented political landscape with two cantons (Canton Schwyz and Canton Lucerne) and nine municipalities (Küssnacht, Arth-Goldau, Lauerz, Schwyz, Ingenbohl/Brunnen, Gersau, Vitznau, Weggis and Greppen). This calls for additional coordination in tourism development and allocation of responsibleness from governmental side.

In terms of tourism marketing the seven largest tourism providers have founded in August 2012 **the marketing and development agency RigiPlus** AG (more details in the section below). The main tourism stakeholder is RBAG, which is also represented in RigiPlus AG as shareholder in its administrative board. RBAG is a 150-year-old railway company which generates jobs to almost 150 FTE and makes a turnover of nearly CHF 30 million a year (Interview, Representative of the RBAG).

Other tourism stakeholders include family- and investor-owned businesses such as hotels and restaurants, a wellness-spa, horse carriage tours, cheese factory and others.

Further stakeholders with an interest in tourism development are local owners of forest, pastures and water reserves, who are organized in several "corporations" with long standing tradition and high political influence (https://www.korporation-weggis.ch/; https://www.uak.ch/ and others).

The interest group "IG Rigi-Kaltbad" (https://ig-rigi.ch/) aims to protect the common interests of house and apartment owners as well as long-term tenants in the Rigi-Kaltbad-First area vis-à-vis authorities, corporations, companies and private individuals.

The association "Pro Rigi" was founded in 1967 and has almost 700 members. Pro Rigi is committed to the sustainable development of the Rigi and aims to deepen the relationship between locals and guests with nature and the landscape. The main activities include the Rigiwacht (observation and supervision of the nature and plant protection areas), guided botanical and natural history hikes, the flower path as well as the elaboration of statements and the drafting of any objections in the case of planned construction and development projects. (http://www.prorigi.ch/)

Tourism organisation(s)

Is there a central tourism organization? What is their mandate? Strategic orientation? Policies and instruments (e.g. masterplans)? Main instruments to steer development?

RigiPlus AG was founded in August 2012 as a development and marketing organization for the Rigi region by the seven largest service providers on the mountain with the aim of:

- Staging of the mountain as a whole to ensure competitiveness
- Cross-provider bundling of offers & integral marketing
- Establishment of a closed service chain across the two canton and nine municipal boundaries

Today RigiPlus AG has over 50 shareholders who represent a total of around 60 tourism service providers, which are also represented in the administrative board (https://www.rigi.ch/ueber-uns/ueber-die-rigiplus-ag/verwaltungsrat-und-geschaeftsleitung).
In order to close the gaps in the service chain "mountain – valley – lake", the districts of Küssnacht and Gersau and the communities of Arth and Lauerz have also been shareholders of RigiPlus AG since January 1, 2018.

RigiPlus AG's vision:

- Common sense leads to common good. Working together increases the added value for everyone on and around the Rigi. In addition, with our work we make a valuable contribution to the sustainable development of the Rigi.

Goals by 2025:

- Implement a development plan for sustainable tourism development
- Improve digital fitness, online bookability
- Promote the development of tourism offerings in mountains and valleys
- Expand and strengthen the «Rigi» network
- Increase added value in the region

RigiPlus AG is mainly mandated to coordinate and manage the local stakeholders and liaise them to foster synergies and develop tourism products. Whereas RBAG is mainly mandated with the marketing and promotion of Mount Rigi as a tourism destination in the national and international markets.

4. Description of overtourism phenomenon (or unbalanced tourism development)

Root causes/drivers

What are the most relevant root causes/drivers for tourism growth/unbalanced tourism development/overtourism in the destination? How have they developed? (structural, internal, external)

Current discussion:

- Recent critique stems from a **masterplan** which the RBAG and RigiPlus AG have commissioned, and which was presented by Quant AG in 2016.
- With this masterplan, the attractiveness of the experience on the Rigi should be increased through a better thematic positioning of the individual attraction points. The Rigi's brand profile was intended to be sharpened for the Swiss and the international market.
- Further, sustainable growth and profitability was aimed to be strengthened. At the same time, with the development of the structures, framework conditions should be established for a sustainable, targeted development and marketing of the entire offer and the creation of adequate infrastructures (Quant AG 2016:5).
- This masterplan was strongly opposed by a newly formed interest group called "Yes! to Regina Montium", which collected more than 3'000 signatures for its petition **"No! to Rigi-Disney-World"** which demanded that Mount Rigi does not degenerate to an "event-alp" with "staged Swiss mountain villages", "Swiss-shopping-worlds", "augmented-reality-nature-experience-trails" and the like. The petition claims that instead of the real pristine mountain world, a "leisure ghetto" would arise with a "resource-devouring consumer and entertainment offer" which is tantamount to the "sell out of Mount Rigi". Thus, the initiators literally demand: "No implementation of the master plan (conversion of Mount Rigi to mass tourism), but preservation of the pure and at the same time majestic simplicity of a mountain, surrounded by a fascinating alpine and lake landscape pulling visitors for centuries under its spell" (Ja! zu Regina Montium 2017).
- In 2019 the same interest group has launched a further petition called **"800'000 visitors are enough"** which is still ongoing and has reached more than 3000 signatures as well. The petition claims that Mount Rigi with almost one million visitors a year, is losing its unique character – and that with one excuse, namely «economic reasons» and «if we do don't do it, others do it ».
- With its second petition, Ja! zu Regina Montium is calling the Board of Directors of RBAG to correct the unbalanced crowd-oriented mix of guests with a marketing which is targeted to nature-based tourism (Ja! zu Regina Montium 2019).

Impacts
What are the most prominent impacts of overtourism in the destination? How do they manifest? How are they perceived by different stakeholders? **Since when has the development become a challenge? Can the impacts be referred to the following categories (infrastructure, environment, economy, social environment, visitor experience)?**
• **Infrastructure:** Crowded train compartment and congested platforms at peak times are the most obvious signs of overtourism. Also at the mountain peak, the **Rigi Kulm**, the high amount of visitor number lead to a packed situation and pushes the area on the limits of its capacity. However, in most other areas of the mountain, visitors distribute well, and the mountain can be experienced in a calm and relaxed manner.
• **Environment:** International guests have due to their long distant flights a much higher global **CO2 footprint**. This must not be fully allocated to the output of Mount Rigi, however by attracting such international guests for their trip through Europe, also Mount Rigi contributes to this Co2 output. A survey of RBAG thus unveiled that 69.2% would be willing to pay a financial contribution on the ticket to the climate initiative "Cause we Care" (RBAG 2018b:6)
• **Economy:** Even though tourism is the most important industry on Mount Rigi itself, the GDP generated in the greater region (incl. the municipalities on the foot of the mountain) gives a more **diverse distribution**. In the Canton of Schwyz side of Rigi the GDP is generated by tourism (5%), agriculture and forestry (1%), industry and trade (27%), energy, water, mining (1%), construction industry (13%), other service industries w/o tourism (41%), retail business (3%) and private households (11%) (Burri et al. 2020: 35). For the Canton of Lucerne side of the Rigi there are no figures available, but tourism has a greater importance on the Lucerne side, as most of the hotels are located there (Interview Representative of the RBAG)
• **Social environment:** As Mount Rigi is a tourism destination for close to 200 years a certain adaption of the residents has taken place. However, some of the **residents are feeling alienated and stressed** by the intensive tourism growth in particular from new emerging Asian markets, namely China. This is mostly traced back to cultural misunderstandings, divergent behavior of hosts and guests, and different motifs to visit the mountain. Most of the residents and second homeowners are elderly people. They have no direct benefit from the tourist on the mountain.
• **Visitor experience:** The quality of the visitor experience, namely on the train and on the mountain peak, is degenerated due the high number of visitors. This is also related to the image of a mountain excursion on Rigi as such, which gets compromised by **cheap mass tourism**. The status of visiting the mountain no longer is the same, when large groups are visiting the place for a quick stop-over. Further the orientation of tourism product development to the international mass market with the folklorisation and disneyfication of cultural heritage (i.e., staged cheese and chocolate show factories), the excessive putting in scene of events (i.e., theme-worlds, adventure parks, etc.), and the use of new technologies (i.e., augmented-reality-nature-experience-trails) lead to a decreased quality of the visitor experience of some other visitor segments (namely the culture/nature/calmness seekers). • However, the visitor survey of RBAG (2018b: 15) unveiled, that problems such as high tickets prices, additional tickets for dogs and missing trash bins are equally (if not more) important that the international orientation and the growth of the emergent Asian markets. **Overtourism aspects are thus just one issue among many others.**

Stakeholders affected
Which stakeholders are mainly affected and how? (e.g. local population, visitors, small businesses, etc.)
• **Local population:** Some of the residents complain missing space in the train compartment at peak time, but on the other hand benefit from a tense schedule with low prices also in fringe times. As Mount Rigi is **not accessible by car,** the services of the railway company are crucial for the local residents to maintained linked to other places. Others feel alienated by the disneyfication of the tourism offers, which does not convey authentic values and the right image.
• **Visitors:** Some visitors are restricted in their visitor experience, as the **calmness of the mountain** is not able to be experienced in the most congested area. Also, the prime image of the mountain experience is devaluated by the intensive use of price-sensitive group tourists. Not all visitors share the same preferences in tourism products, which are sometimes mutually excluding. But guests on Mount Rigi are generally very satisfied with the quality of their experience, as a visitor survey (RBAG 2018b) indicated with an elaborated Net Promotor Score of 66.6%.
• **Small businesses:** Not many small businesses benefit from the large amounts of tourists visiting the mountain, as these remain mostly within the service chain of RBAG (transportation, food and merchandising). However, some companies benefit as suppliers of RBAG (wood, cheese, diaries, etc.)
Capacities & bottlenecks
What are the central capacity challenges and main bottlenecks?
Capacity challenges are mainly observed on transportation (train and cable car) and at the summit (Rigi-Kulm). But only on about 20 to 25 days, when weather conditions are favorably and in additional of the international guests (who have mainly booked in advance and would also be visiting with bad weather condition) the many spontaneous visitors from nearby are accumulating. During these days, capacity limits are challenged. However, RBAG is able to react swiftly and is in the position to provide additional train wagons out of the reserve. No guests have ever needed to be turned down. Nevertheless, capacity limits are emerging on the mountain top, at the summit train station, the mountain viewpoint and/or at infrastructure such as toilets/restaurants. But is economically not feasibly to adapt infrastructure to the 20- 25 days of peak times, when the rest of the year infrastructure is not fully stretched.
Additional comments on the overtourism situation Are there any other important aspects to understand the unbalanced tourism situation in the destination?
• **Mount Rigi was a pioneer in tourism development with the Europe's first mountain railway established 1871**. But even before the inauguration of this technical innovation, Mount Rigi seduced visitors from around the world: • The first hotel opened on Rigi Kulm in 1816, which marked the beginning of the development of modern tourism in the area. Three years later, already more than 1,000 guests visited Mount Rigi (Rosenberg-Taufer and Huilla 2017:123). Among the visiting guests have also been rich and famous people, who coined with their status influence Rigi as a place of longing (Eggli 2021:161) • Also, the interview with RBAG unveiled the importance of the close relation of the many Swiss people to Mount Rigi. Because of its emotional significance the Mountain inherits a special role for many Swiss. Rigi is located in the middle of Switzerland and represents throughout history identity and belongness to the Swiss. This sometimes prevents only business-related decisions, as this emotional boundness has to be taken into account.

5. Solutions (Main Focus)

Measures and strategies to prevent and/or mitigate the negative impacts of overtourism
What strategies and measures have been applied (or planned) by whom to address the overtourism situation? Who was the initiator of any specific measures (authorities, DMO, businesses, residents, etc.)? How have the different stakeholders been involved? **What are the measures aimed at (root causes, capacities, impacts)? Explanation of the different measures (how?)? (Since) when was the measure implemented?**
• As a reaction of the petition "Ja! zu Regina Montium" a **round table** inviting the most relevant stakeholders around Rigi has been convoked. • This round table was moderated by the Lucerne University of Applied Sciences and Arts and was followed up by several **workshops**. • Within this participatory and transdisciplinary process (see Stettler et al. 2021) the "**Charta Rigi 2030**" evolved. • The "Charta Rigi 2030" was signed in 2018 and defines in one part the **principles of a sustainable development** on Mount Rigi in the three dimensions ecology, economy and society and in the other part the **principles of an ongoing cooperation** process between to most involved stakeholders. • RigiPlus AG receives a crucial role in the process, as this company is foreseen to coordinate the different interests in future and to hold a yearly "**Rigi Conference",** where projects and measures as well as specific indicators to monitor the development are publicly presented. These projects/measures and indicators are defined for a period of four years in the specific development plan, which is elaborated in regular workshop with the most involved stakeholders (www.rigi.ch/rigicharta2030).
• Also, before starting the process of "Charta Rigi 2030", RBAG has been aware of the sometimes-colliding interests and travel motives of their main visitors segments. Among other measures, separate wagons for Asian group tourists have been introduced so that the individual excursion tourists are not confronted directly with the group travelers. In addition, signs for the correct western toilet use were installed and workshops to raise the intercultural awareness of Rigi employees held (Rosenberg-Taufer and Huilla 2017:135). Further to that RBAG is following the "Cause We Care" initiative in 2018, and is committed to the three pillars of sustainability within a TourCert certificate elaborated together with the Lucerne University of Applied Sciences in 2019 (RBAG 2018:6). Further to that, RBAG aims to better manage and smoothen visitor flows by promoting the tours by cogwheel train Arth-Goldau – Kulm – Vitznau instead of the cable car Weggis – Kaltbad. Also fringe times should be better exploited by marketing weak periods (see above: Temporal and spatial distribution).
Innovative aspects
What are the unique/innovative/new aspects? Have any digital solutions (including social media) been planned or implemented?
• The process of "Charta Rigi 2030" is characterized by its participatory and transdisciplinary process. This enables practitioners from real-world companies and academics for the Lucerne University of Applied Sciences and Arts to mutually interact and jointly progress the project. As Stettler et al. (2021) elaborate this process is structured by three phases: (a) collaborative problem framing, (b) co-creation of solution-oriented knowledge, and (c) integration and application of created knowledge.
Impact measurement
Do you measure the effectiveness of the strategies/measures implemented? How?
• To measure the effectiveness of the implementation Charta Rigi 2030 several indicators have been developed and defined in the development plan 2021 – 2023. These are structured in (a) development goals, (b) indicators, and (c) a monitoring concept. More details on monitoring/indicators are described in section 6 below.

Challenges & success factors
What were the central challenges when planning, developing, and implementing the measures? **What were the central success factors when planning, developing, and implementing the measures?**
Challenges: • Coordination of diverging interests (demanding negotiating skills for moderator) • Time consuming process (e.g., time and financial resources for many volunteering organizations) • Commitment (representatives of organization have to sell the result at home) • Individuals with high identification and conviction are not easy to convince about pragmatic comprises • Distraction of process through media interest and self-promoting platforms • Securing long-term financing (sustainability)
Success factors • Involvement of all relevant stakeholders, also the opposing side. • Creating a non-competitive ambience, where concerns can be expressed openly and frankly. • Listening and understanding the opposing sides. • Allocation of responsibilities to the involved stakeholders. Providing the opportunity to walk the talk. • Setting clear milestones, with respective tasks and dates • Transparence (and sometime a bit more humbleness) in communication • Acceleration of existing projects, providing a platform to enhance initiatives. • Support in acquisition of financial support by third parties for projects/measures • Neutral mediator role of the HSLU during the initial phase and continuation of the cooperation during the NRP phase (consistency, trust, etc.)

Transferability to other destinations with similar characteristics
What needs to be considered when implementing such measures? What are experiences you made that other destinations could learn from? What could be transferred to other destinations? What would you recommend a destination with similar challenges?
Even though challenges and success factors (stated above) emerged out of the single-case Rigi, most of these findings can be transferred to other destinations.

6. Monitoring/indicators

Monitoring of overtourism situation

Is there a system in use to monitor the tourism situation and development? How does it work? Who is in charge?

- The **implementation process** of "Charta Rigi" is monitored, supervised, and coordinated by RigiPlus AG. This organization convokes twice a year the consulting board of "Charta Rigi 2030" consisting of the most relevant stakeholders to oversee the development. A compilation of indicators and projects/measures are updated prior these meetings to monitor the process on a regular basis and to decide on further procedures.
- The first **development plan** covers the period from 2021 to 2023. It will be followed by a development plan for the period 2024 to 2026 and one for the period 2027 to 2030. At the end of each period an interim report will be established by RigiPlus AG. The insights of the interim report will then be adapted in the forthcoming development plan.
- The **Charta Rigi** is designed for a duration of 10 years. The present Charta Rigi will be evaluated in 2030 and adapted where necessary for the forthcoming period until 2040.
- **Annual Rigi Conference:** Each year a public event on Mount Rigi will be organized to inform all interested stakeholders about the current status of the development and the future focus areas. During these public gathering an open exchange is fostered and indicators and projects/measures presented in detail.

Indicators used

What are indicators used for the observation? Which indicators have proven successful?

Each principle of the "Charta Rigi 2030" is measured by at least one objective indicator. The following list provides an overview on the principles of the Charta (column left) and the corresponding indicator (column right). Each indicator is allocated to a responsible person, who collects the defined data and forwards it to RigiPlus AG. Most of the indicators are existing data, which gets recorded by third parties. Some others are elaborated as part of the project. As the monitoring system is still in elaboration, not all indicators are defined yet. Some of them will be adapted or only data only collected at a later stage.

Rigi Charta 2030 Principles	No.		Indicators
1. Environment			
Natural and landscape spaces	1.1	1.1.1	Investment-free areas
		1.1.2	Landscape perception (LABES survey)
Biodiversity	1.2	1.2.1	Change in the plant world (Pro Rigi observations)
		1.2.2	Breeding bird population
		1.2.3	Biodiversity Promotion Areas (BFF)
Energy	1.3	1.3.1	Share of renewable energies
Climate	1.4	1.4.1	Greenhouse gas emissions
		1.4.2	Total of the project evaluation in terms of impact on climate

Water	1.5	1.5.1	Drinking water consumption per capita
		1.5.2	Total of the project evaluation in terms of impact on water consumption
Waste	1.6	1.6.1	Waste quantities (weight)
		1.6.2	Total project evaluation in terms of impact on waste quantities (e.g. foodwaste)
2. Economy			
Positioning	2.1	2.1.1	tbd
Offers	2.2	2.2.1	Number of sustainable offers (or: net positive)
Guests	2.3	2.3.1	Number of guests (total)
		2.3.2	Guest mix: proportion of Swiss/foreigners
		2.3.3	Guest mix: Share of groups (of which from Asia)
		2.3.4	Guest editions
		2.3.5	Guest satisfaction
Infrastructure	2.4	2.4.1	Tbd Guest SatisfactionTotal/Project Evaluation
Regional value creation cycles	2.5	2.5.1	Jobs in the region
Agriculture and forestry	2.6	2.6.1	Share of regional products
3. Society			
Habitat	3.1	3.1.1	Satisfaction of local stakeholders
Cultural heritage	3.2	3.2.1	tbd
Accessibility	3.3	3.3.1	Quality of public transport accessibility at off-peak times (changes)
		3.3.2	Accessibility of the Rigi by public transport
Supply	3.4	3.4.1	tbd
Knowledge transfer	3.5	3.5.1	Number and diversity of information services/projects for stakeholders
		3.5.2	Number of projects that examine the form of knowledge transfer during planning.
Participation	3.6	3.6.1	Number of events, actions and specific information to stakeholders
		3.6.2	Number of projects that include a participation process

Specific indicators

Are there any suitable indicators and/or is there data with regard to seasonality, number of day visitors, private accommodations and the perception of the residents?

Yes, see above.

Challenges and success factors of the monitoring
What are the challenges and success factors of the monitoring system/the indicators?
Challenges: • Find balance between accuracy and general validity (how exact must an indicator be?) • Find balance between cost and benefit (how laborious must an indicator be?) • Find balance between informative value and availability (are we measuring the right aspects?)
Success factors: • Clear allocation of indicator to the defined and agreed principles of "Charta Rigi 2030" • Clear ownership of indicator by project-member, clear allocations of tasks and responsibilities • Pragmatic use of existing indicators to keep effort low • Demonstrate success! Give evidence that measures work, and the Charta achieves to goals set • Set objective goals and manage them rational: "you can't manage what you can't measure."

Additional comments on monitoring/indicators: Are there other important aspects regarding the monitoring?
In addition to the indicators, also projects/measures are developed and allocated to the Charta-principles. To oversee and monitor the manifold initiatives a project-portfolio has been established, which is followed up by RigiPlus AG on a regular basis too.

7. Management of the pandemic

Changes due to the pandemic
What has changed due to the pandemic? How has the pandemic influenced the tourism development? **How has the pandemic influenced the strategy to manage tourism (and to deal with overtourism)?**
The pandemic crisis clearly indicated that the local Swiss and neighbouring European markets are not sufficiently large to operate business successfully. The infrastructure of the mountain is aimed at a certain frequency, which makes the current business model depended on international visitor flows. These visitor flows are significantly differing from local visitor behaviour patterns (e.g., not so weather-dependent) which make them better manageable.
Currently planned investments (technical renovation of railway infrastructure and cable cars) are due despite the missing incoming revenues. For example, the Rigi cable car concession for the liaison Weggis – Kaltbad is expiring in 2027 and a new solution must be put in place. Also new rolling stock has already been ordered for CHF 42 million prior the crisis. Future growth figures will indicate which standard of infrastructure will be feasible and necessary, but mostly there is only limited leeway because of security laws, and equal treatment acts (such as for disabled people etc.)

Additional comments Are there other important aspects regarding the pandemic?
The pandemic has strengthened the role of RigiPlus AG as a network organization and as a link to the two cantons of Schwyz and Lucerne. RigiPlus AG, and with it all shareholders and partners, were able to benefit from impulse funds, for example, to support tourism.

8. Outlook & Additional Comments

Expected future changes

What are the expected changes in the future tourism development? What are the plans for post-covid tourism?

The strategy of RBAG for the years 2021 to 2025 address the following expected future changes (among others)

- Better management of tourist flows through spatial and temporal unbundling
- Avoidance of cluster risks by a better-balanced guest mix (greater focus on US market, less China and South-Korea)
- Advancement of new technologies and digitization (front- and back end)
- Employee development by talent programs, operational excellence, and learning agility

RigiPlus AG's goals by 2025:

- Implement a development plan for sustainable tourism development
- Improve digital fitness, online bookability
- Promote the development of tourism offerings in mountains and valleys
- Expand and strengthen the «Rigi» network
- Increase added value in the region

Risks and uncertainties

What are the most relevant risks and uncertainties currently?

- **Risks and uncertainties** caused by the pandemic are the difficult predictability, plannability, and calculability. Costs might be foreseeable, but not the revenues. Uncertain how the 'new normal' will look like. Many questions-marks regarding the short and mid-term future.
- For the process of "Charta Rigi 2030" the **business model is not yet found**. Currently the implementation of the Charta Rigi 2030 is founded by governmental (Cantonal and Federal funds), but these run out at the end of 2021, and it is not yet clear how the process is able to proceed. Local municipalities should engage more in the process and provide additional resources.

General recommendations

What are general recommendations that you'd like to share for destinations with similar challenges?

- Do not treat tourism as an isolated phenomenon. It is interlinked with many other aspects of municipal and cantonal policies (such as traffic regime, building zone, environmental protection, etc.), which calls for a **holistic approach** and puts governments and administrative bodies in responsible positions.
- Do not treat tourist segments separately. **Visitor flows are tensely interwoven** and benefit from each other, even though this is not obviously noticeable. Mass tourism is often cross-financing and thus enabling services and offers directed at locals or local visitors.
- Be prudent with communication, do not promote **one-sided views**, but always contextualize narratives with their advantages and dependencies.
- **Show humbleness** when business bounces back again and follow a well-balanced step-by-step policy.
- **Integrate all stakeholders in the process**, create platforms for interaction and participation (such as open fire discussion, etc.)
- **Provide clear rules and binding polices**. Do not stay uncommitted but aim to establish mandatory guidelines by integrating authorities.

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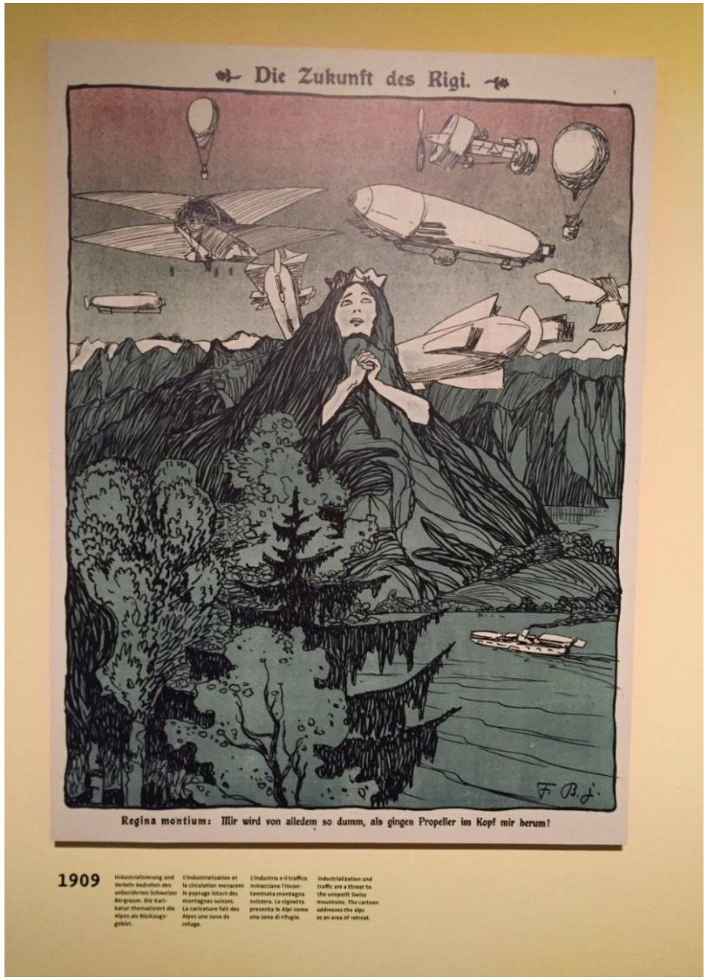
Die Zukunft des Rigi.
F. B. j.
Regina montium: Mir wird von alledem so dumm, als gingen Propeller im Kopf mir herum!
1909
Industrialisierung und Verkehr bedrohen den unberührten Schweizer Bergraum. Die Karikatur thematisiert die Alpen als Rückzugsgebiet.
L'industrialisation et la circulation menacent le paysage intact des montagnes suisses. La caricature fait des Alpes une zone de refuge.
L'industria e il traffico minacciano l'incontaminata montagna svizzera. La vignetta presenta le Alpi come una zona di rifugio.
Industrialization and traffic are a threat to the unspoilt Swiss mountains. The cartoon addresses the alps as an area of retreat.

Nein! zu Rigi-Disney-World

Die Rigi Bahnen AG beabsichtigt, die Rigi mit **50 – 60 Millionen Franken** in ein **Disney World für über eine Million Touristen jährlich** umzubauen, mit einer "Eventalp", einem "Schwizer Bergdörfli" mit "Swiss-Shopping-Welt" und Schnapsbrennerei auf Rigi Staffel (1603 m ü. M.), einem neuen Spielplatz mit Streichelzoo, Baumhütten zum Übernachten und einer "Themenwelt Wasser mit Wasserspielplatz" auf Rigi Kaltbad, einem "Abenteuerpark Rigi" mit begehbarem Tannzapfenturm, einer "Alp-Olympiade", einem "Augmented-Reality-Naturerlebnispfad" (Naturerlebnispfad mit computergestützter Realitätswahrnehmung) auf Rigi Scheidegg sowie einer "Themenwelt Bier" auf der Seebodenalp (Beispiele Masterplan / Medien).

Mit dieser Petition werden die Entscheidungsträger, namentlich der Verwaltungsrat der Rigi Bahnen AG, gebeten, den Masterplan zu überdenken, auf ein nachhaltiges, qualitatives (Wirtschafts-) Wachstum zu setzen und die heutigen Natur- und Landschaftsressourcen zu bewahren.

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