Measuring the Sustainability of Tourism

The case of Austria

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Independent statistics for evidence-based decision making

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Agenda

- Plan T - Masterplan for Tourism
- Measuring the Sustainability of Tourism (MST) – further initiatives and tools
- MST UN Tourism – Pilots/country experiences
- Measuring tourism acceptance
- Conclusions

Plan T - Masterplan for Tourism

Paving the way for „Measuring the Sustainability of Tourism" (MST) in Austria
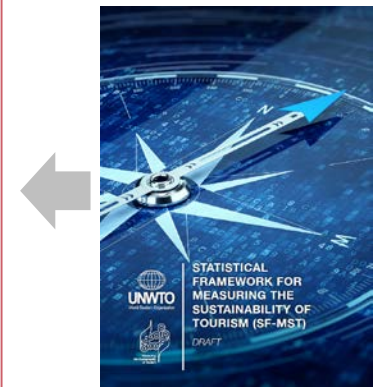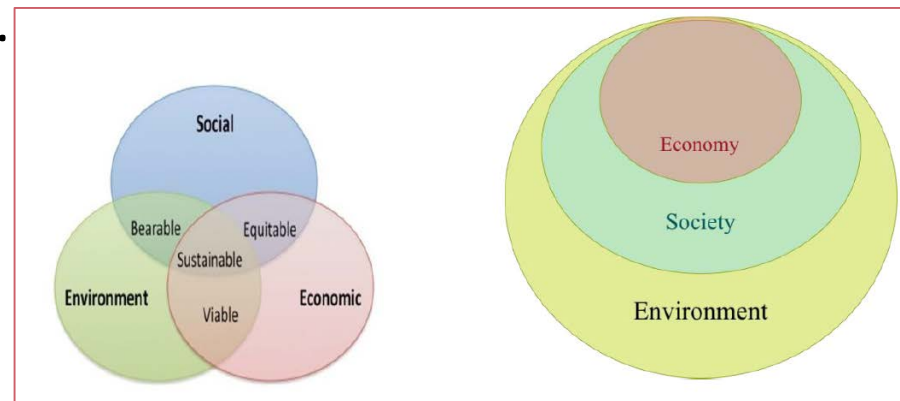
Plan T - Masterplan for Tourism

Setting tourism related indicators

➤ In the past the success of tourism has been measured mainly by physical indicators such as overnight stays and arrivals which only do reflect one aspect of the whole tourism industry.

➤ Within the Austrian "Master Plan for Tourism" – elaborated by the main stakeholders of the Austrian tourism industry under the supervision of the "Federal Ministry of Labour and Economy" (BMAW) in 2018/19 – a set of tourism related indicators considering the **three dimensions of sustainability** has been proposed.
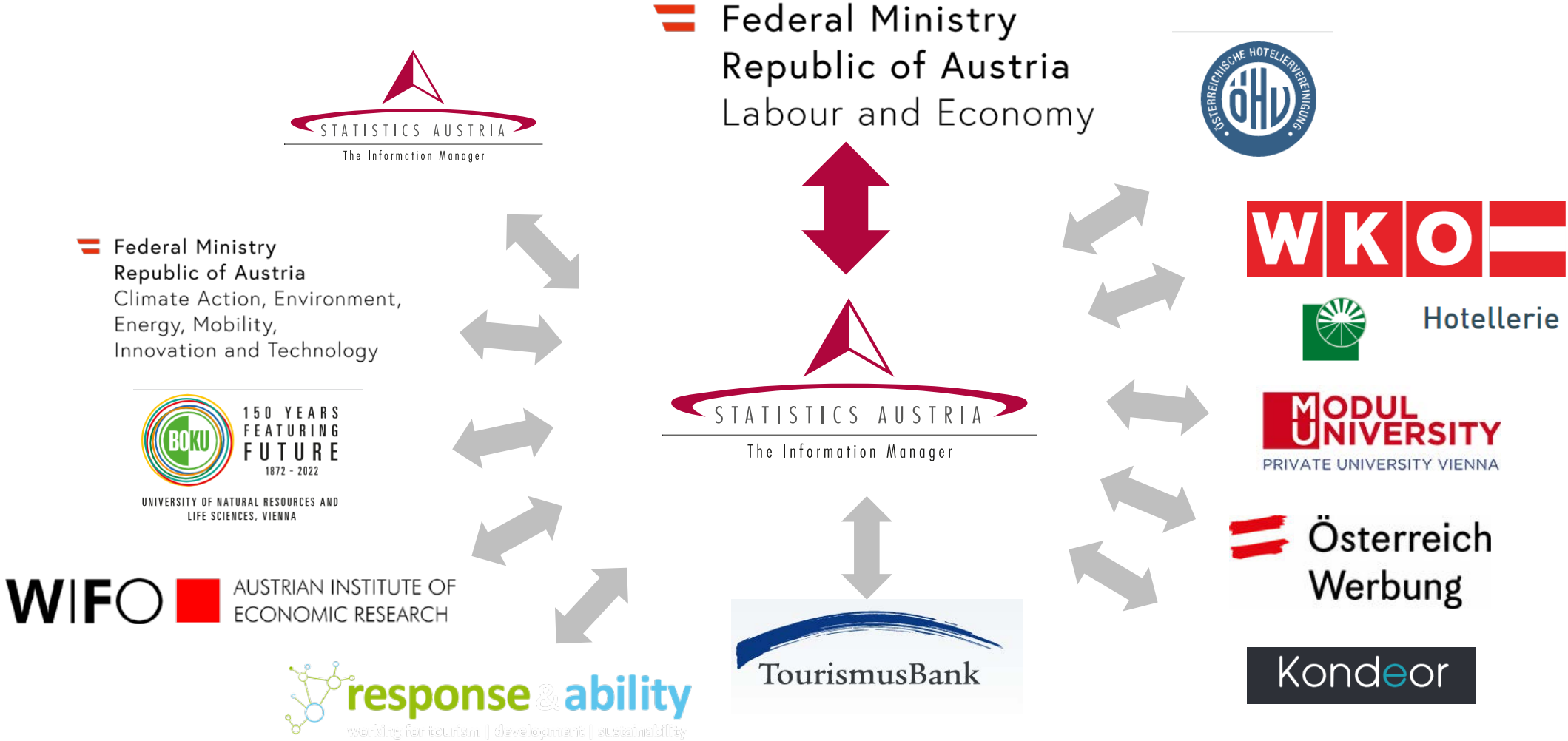

Source: https://www.bmaw.gv.at/dam/jcr:0ea14456-ac84-4d66-ac69-d507317cd3f2/PLAN%20T%20-%20MASTER%20PLAN%20FOR%20TOURISM.pdf

https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2024-02/SF-MST_version_WEB_FEB2024.pdf

Developing tourism related indicators

Involved stakeholders

Developing tourism related indicators

Proposals

Indicator	Category	Description	Source	
Same-day visits' intensity (in %)	soc	Share of same-day visitor compared to total population.	Population statistics/STAT	X (Same-day visitors)
Guests' satisfaction	soc	Satisfaction of holiday guests staying overnight.	Austrian Nation Tourist Office (T-Mona)	.
Job rank number	soc	Unemployed per available job vacancies.	Austrian Chamber of Commerce	.
People's perception of tourism	soc	Measurement of the satisfaction of the resident population in regard to tourism.	Tourism Report (2019, 2020, 2021)	.
Participation of women in tourism	soc	Employed women compared to total employed.	TSA (employment), LFS (STAT)	.
Mobility	ecol	Choice of transport mean for arrival and departure.	T-Mona, Eurostat (Microdata), STAT	.
Average duration of stay (in nights)	ecol	Average duration of stay of guests in commercial and private accommodation against payment.	Accommodation statistics (Statistics Austria; STAT)	.
Greenhouse gas (GHG) emissions in hotels per night	ecol	The indicator shows the emissions of greenhouse gases (GHG) in the hotel industry per overnight stay.	Air emissions account (STAT)	.
Austrian Ecolabel	ecol	Number of accommodation establishments with the Austrian Ecolabel.	The Austrian Ecolabel	.
Water quality in bathing lakes	ecol	Bathing water quality at official monitoring sites.	EEA (European Environment Agency)	.
Energy consumption per overnight stay	ecol	The indicator shows the direct energy consumption per overnight stay.	Energy accounts (STAT)	.
Share of renewable energy sources in total energy consumption	ecol	The indicator shows the share of renewable energies in total energy.	Energy accounts (STAT)	.

Of the more than 50 indicators initially proposed, 26 indicators were finally shortlisted.

Developing tourism related indicators

Final step

➢ The remaining 26 indicators were subsequently subject to additional (political) analysis with regard to feasibility and practicability, which ultimately resulted in the selection of the indicators listed in the current Masterplan (11 indicators).

➢ The respective results are published on yearly basis within the "Tourism Report" (see 2024 edition) which considers 16 indicators on national/regional level.
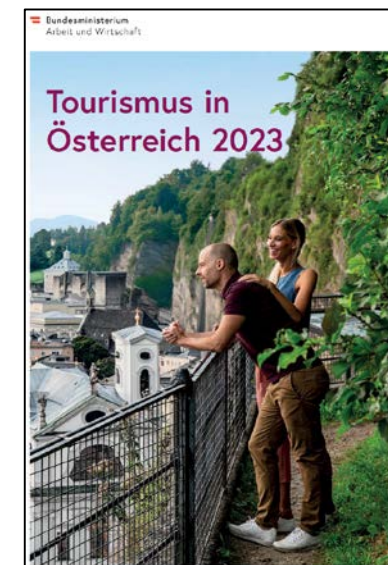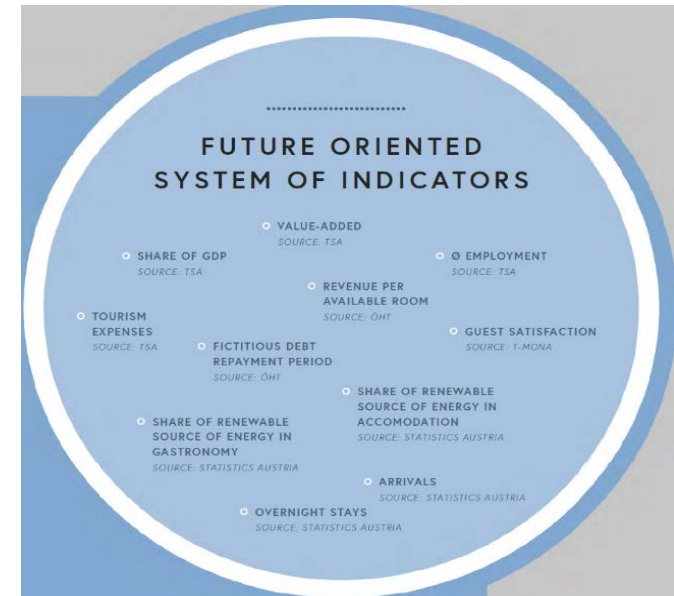
Measuring the Sustainability of Tourism (MST)

Further initiatives and tools
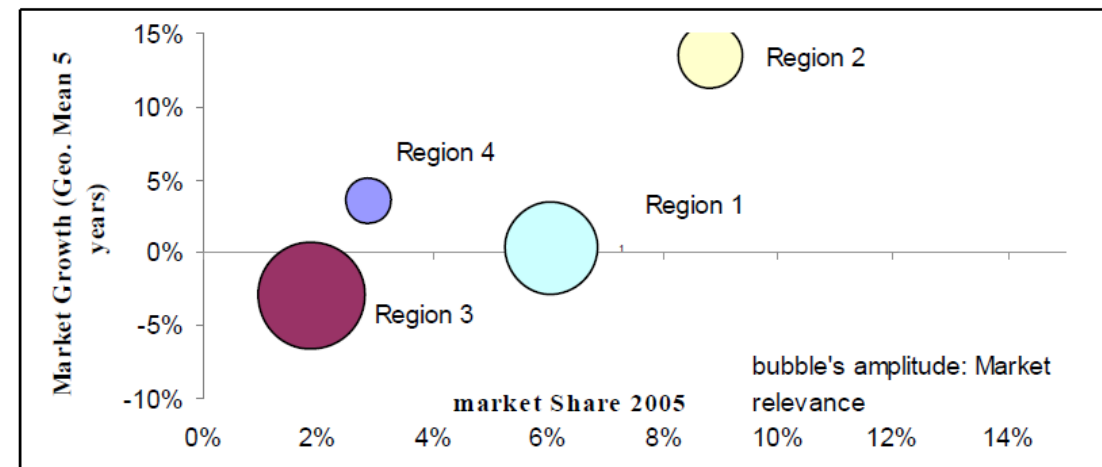
Further initiatives on sub-national level

Portfolio – multidimensional information on regional level

STATcube

➢ Statistical data related to arrivals and overnights are electronically available since the early 1970ies (STATcube).

➢ However, in most cases the information is available in one or two dimensions and does not show the interlinkages between various variables.

➢ Portfolio Analysis (PFA) represents a multi-dimensional opportunity providing data by using as much data as needed in order to get an in-depth overview of a specific tourism situation.

➢ Variables such as number of arrivals, number of overnights, country of origin (about 77), reporting municipalities (about 1,600), kind of tourist accommodation (14) are considered; data are available on a monthly basis starting with 1972.

Ankünfte und Nächtigungen nach Unterkunftsart Wintersaison 2023/24

Unterkunftsart	Ankünfte			Nächtigungen			Aufenthaltsdauer in Nächten		
	Insgesamt	Inländische Gäste	Ausländische Gäste	Insgesamt	Inländische Gäste	Ausländische Gäste	Insgesamt	Inländische Gäste	Ausländische Gäste
Hotels und ähnliche Betriebe	14 378 896	4 795 896	9 583 000	43 103 078	10 989 190	32 113 888	3,0	2,3	3,4
5-/4-Stern Betriebe	8 532 672	2 909 533	5 623 139	25 797 704	6 844 878	18 952 826	3,0	2,4	3,4
3-Stern Betriebe	4 254 480	1 481 431	2 773 049	12 529 060	3 236 739	9 292 321	2,9	2,2	3,4
2-/1-Stern Betriebe	1 591 744	404 932	1 186 812	4 776 314	907 573	3 868 741	3,0	2,2	3,3
Ferienwohnungen/-häuser (gewerblich)	2 219 458	307 190	1 912 268	10 788 713	1 119 474	9 668 739	4,9	3,6	5,1
Campingplätze	230 733	41 658	189 075	893 662	123 734	769 928	3,9	3,0	4,1
Unterkünfte f. Kinder und Jugendliche	485 120	158 457	326 663	1 747 484	538 034	1 209 450	3,6	3,4	3,7
Kurheime	114 546	111 288	3 258	1 974 227	1 951 617	22 610	17,2	17,5	6,9
Bewirtschaftete Schutzhütten	92 605	23 657	68 948	183 350	43 285	140 065	2,0	1,8	2,0
Sonstige Unterkünfte	229 142	115 910	113 232	762 843	334 479	428 364	3,3	2,9	3,8
Private Unterkünfte insgesamt	2 240 303	299 067	1 941 236	11 632 268	1 140 475	10 491 793	5,2	3,8	5,4
Insgesamt	19 990 803	5 853 123	14 137 680	71 085 125	16 240 288	54 844 837	3,6	2,8	3,9

Market Growth (Geo. Mean 5 years)

Region 2
Region 4
Region 1
Region 3

market Share 2005

bubble's amplitude: Market relevance

Tools measuring/presenting data on regional level

RESY – Dashboard

➢ Demography:
  - ✓ Population
  - ✓ Age
  - ✓ Size of households
  - ✓ Forecast of young children number
  - ✓ Education

➢ Economy:
  - ✓ Structure
  - ✓ Size of companies
  - ✓ Number of employed persons
  - ✓ Self-employment rate
  - ✓ Unemployment rate
  - ✓ Part-time employment
  - ✓ Number of local units of employment

➢ Tourism:
  - ✓ Duration of stay
  - ✓ Nights spent
  - ✓ Tourism intensity
  - ✓ Number of beds
  - ✓ Bed occupancy
  - ✓ Tourists by country of origin

➢ Infrastructure and mobility:
  - ✓ Access to public transport
  - ✓ Availability of broadband
  - ✓ Prices of building land
  - ✓ Childcare

Source: https://www.resy-dashboard.at/

➢ Energy and environment:
  - ✓ Energy use/Green house gas emission
  - ✓ Energy use/Green house gas emission by sectors
  - ✓ Energy by purpose of use
  - ✓ Heat days
  - ✓ Snow-making time
  - ✓ Land use/surface sealing
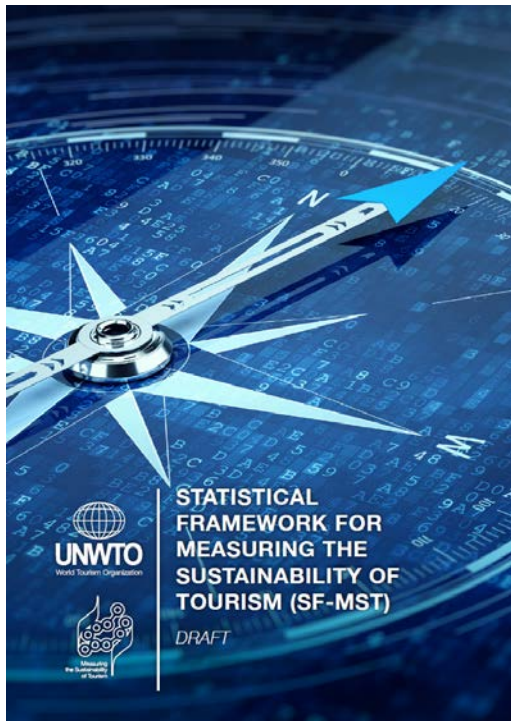
MST UN Tourism

Pilots/country experiences

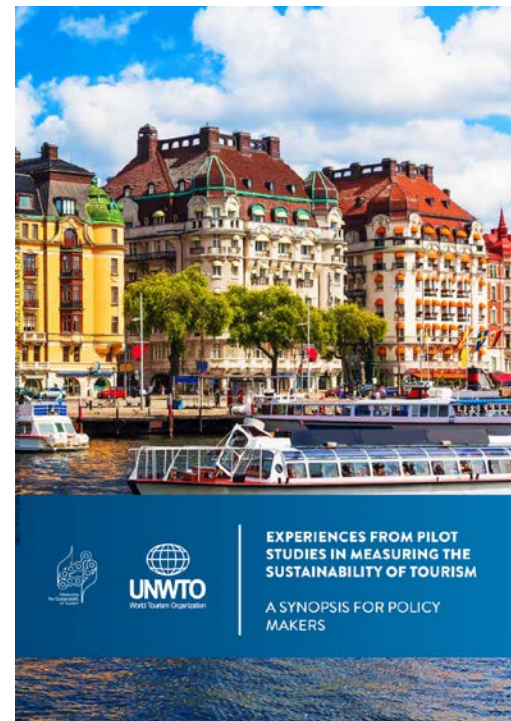# UN Tourism Pilots

Framework and Pilot Studies

STATISTICAL FRAMEWORK FOR MEASURING THE SUSTAINABILITY OF TOURISM (SF-MST)

DRAFT

https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2024-02/SF-MST_version_WEB_FEB2024.pdf

EXPERIENCES FROM PILOT STUDIES IN MEASURING THE SUSTAINABILITY OF TOURISM

A SYNOPSIS FOR POLICY MAKERS

https://www.e-unwto.org/doi/epdf/10.18111/9789284424047
(2020 version)

MEASURING THE SUSTAINABILITY OF TOURISM

LEARNING FROM PILOTS

https://www.e-unwto.org/doi/epdf/10.18111/9789284424061?role=tab
(2022 version)

UN-Tourism Pilots (2022)

Indicators for monitoring – the Austrian case

MST-based indicators to monitor the Master Plan for Tourism

UN-Tourism Pilots (2022)

Key performance indicators – the Austrian case

26.7 kWh (2019)
Energy consumption per night spent

54% (2019)
Share of renewable sources of energy in accommodation and restaurant sector

EUR 2,308 (2019)
EUR 801 (2021)
Income per capita

OIL 19%
Gas 7%
Renewables 8%
District heat 13%
Electricity 53%
Coal 0%
Garbage 0%
Energy mix in accommodation and gastronomy sector (2019)

179,025 (2020)
186,717 (2021)
Employees in the accommodation and gastronomy sector

78 of 100 points (2021)
Tourism acceptance (Austrian population)

1.51 on a 1–6 scale (summer 2021)
Guest satisfaction

5.5% (2020)
4.1% (2021)
Contribution to GDP

EUR 122 in 4- and 5-star hotels (2020)

EUR 61 in 3-star hotels (2019)

RevPAR median

10.3 years in 4- and 5-star hotels (2020)

9.3 years in 3-star hotels (2019)

Fictitious debt repayment period

Measuring tourism acceptance

The social dimension of tourism

Measuring residents´ perception of tourism
Starting point

➤ Residents´ opinion towards tourism has been already studied academically for several decades.

➤ During recent years, countries and tourism destinations have started to consider residents´ perception of tourism into their development and tourism strategies, including the establishment of surveys.
"In any case, tourism acceptance is an issue for the future and the permanent survey is one of the most important projects in order to be able to manage a balanced coexistence in tourism in the future" (State Secretary for Tourism Ms. Susanne Kraus Winkler; https://www.parlament.gv.at/aktuelles/pk/jahr_2024/pk0353)


However, for people's acceptance and awarenss for tourism there exists, for the time being, neither at international level nor at national level an appropriate indicator. As soon as a feasible model is available it will also find entrance into the following set of indicators as well as an even more detailed presentation of the importance of tourism for regional living environments.

Measuring residents´ perception of tourism
Purpose

- Data on the social sustainability of tourism is provided to create transparency and enable evidence-based initiatives and measures.

- The fundamental aim is to prevent "overtourism" (="unbalanced tourism" or "undermanaged tourism") and to channel tourist flows, which ultimately has a positive impact on the acceptance of tourism among the local population!

- Best practice Germany:
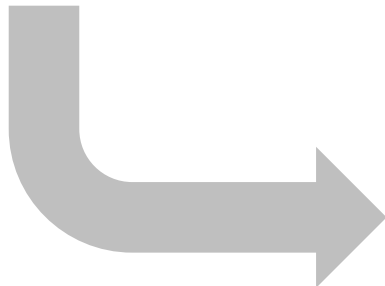
Decision in Austria:
Collection of data related to tourism acceptance in addition and in the frame of the quarterly surveys related to the „Travel behaviour of Austrian residents"!

Measuring residents´ perception of tourism
The Questionnaire

Question G1

How do you personally rate the impact of tourism on **your place of residence**?

Question G1_1

Why do you rate the impact of tourism on where you live as *predominantly positive/negative*?

Question G2_1

In your opinion, what significance does tourism (i.e. overnight and day trips) generally have for the economy, labour market and leisure activities in **your place of residence**?

Question G2_2

In your opinion, what significance does tourism (i.e. overnight and day trips) generally have for the economy, labour market and leisure activities in **Austria**?

Question G3_1

How do you personally feel about the number of tourists in **your place of residence**?

Question G3_1_1 Seasonality

When do you feel that there are rather many/too many tourists in your place of residence?

Question G3_2

How do you personally feel about the number of tourists in **Austria overall**?

Question G4

What importance does tourism have for your professional or financial situation?

# Measuring residents´ perception of tourism
Publication and level of regional granularity

➢ Annual results 2024: 2nd quarter 2025

➢ National, federal province and REGIONAL (YEARLY RESULTS)

Model-based and limited to a few characteristics → Model for Small Area estimation under construction

based on additional data on municipality level:

➢ Accommodation statistics
➢ Population register
➢ Register-based labour market statistics
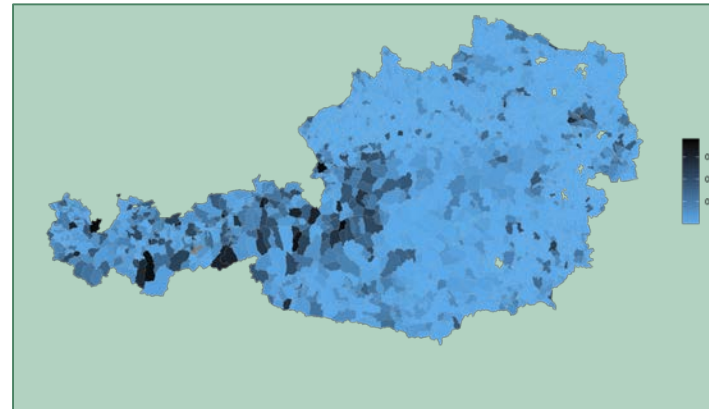
Conclusions

Conclusions

➢ Statistical Frameworks related to "Measuring the Sustainability of Tourism" (MST) are very useful gaining reliable and comparable information on tourism in its wider context and sub-national level

➢ Tourism sustainability can never be measured by indicators alone (regardless of qualitative or quantitative or both)

➢ Profound knowledge of the whole region is necessary to interpret the figures and draw reasonable conclusions from them

➢ Objectives need to be established by each region

➢ Measuring the Sustainability of Tourism requires data comparable over time and space ("Monitoring")

image from /stock.adobe.com

Still work ahead:
- **availability of more and current data at destination level**
- **implementation of new systems/models (e.g. combining TSA/SEEA)**

Queries to:

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Further information related to Tourism Statistics:

https://www.statistik.at/en/statistics/tourism-and-transport/tourism

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Independent statistics for evidence-based decision making

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