

WP5. Data Measurement and Analysis - 1. Data collection, measurement and gathering.

SANTIAGO DE COMPOSTELA



Prelim:

- Following FSMLRPH “**Protocol of measurement**” (WP4.2, July 2020), whose goal was "to design a valid data collection protocol with **unified criteria**, which ultimately allows the calculations and/or graphic representations of the indicators and indexes that summarize the **essential information** of the monitoring system designed for the project, with the aim of facilitating the decision-making process in the **management of mass tourism in heritage cities**, as well as improving **conciliation with the citizens who live there**".
- **Critical threshold: 0.92 m²/person.** Proposed limit as defined in the "Jacobs Method" (Herbert A. Jacobs; the most common technique for counting crowds) like: Light crowd - might have one person per every 10 square feet or 0,92 square meters.
- **Smartiago**, a ERDF project managed by the City Council's IT Dept. that, amongst other challenges, aims to improve mobility (vehicles & pedestrians) in the old town.

SCQ Data collection, measurement and gathering included the evaluation of most of the indicators contained in FSMLRPH “Protocol of measurement”: **25/30 items**

AREA	INDICATOR	RESULT
Site / Building Charge capacity	Real concentration levels of people / saturation in heritage areas [+Smartiago 2022]	Following BODAH's protocol
	Saturation expectations in heritage areas	
	Environmental conditions of heritage buildings	Access to buildings to perform measurements is not allowed
People – Flows in the city	Investment costs - heritage buildings maintenance	
	Real people traffic detection: number / area / time [+Smartiago 2022]	There are no cameras for continuous measurement. A manual transit count was performed
Perception – Charge capacity and flows in the city	Reservation management analysis: predicting critical values of people concentration in tourist itineraries	
	Real-time perception of saturation feeling: social networks	Following BODAH's protocol
	Post-experience perception index of saturation feeling (surveys)	Following BODAH's protocol
	Real-time perception of security: social networks	Following BODAH's protocol
	Post-experience perception index of security (surveys)	Following BODAH's protocol
	Real-time perception of cleanliness and hygiene: social networks	Following BODAH's protocol
	Post-experience perception index of cleanliness and hygiene (surveys)	Following BODAH's protocol
	Post-experience perception index of the state of heritage conservation (surveys)	Following BODAH's protocol
	Post-experience perception index perception of commerce and services (surveys)	Following BODAH's protocol
Coexistence - Services capacity, access and quality	Ratio people / bins / containers	Following BODAH's protocol
	Volume of solid waste collected	Following BODAH's protocol
	Frequency of cleaning services intervention by areas	Following BODAH's protocol
	Crime rate in the monitoring area	Following BODAH's protocol
	Air pollution levels	Following BODAH's protocol
	Noise pollution levels	
	Waiting time on major public transport	Following BODAH's protocol
	Incorporation of transport alternatives: bicycle service	Bicycle traffic is prohibited through the historic center
Coexistence - Socio-economic development	Ratio residential housing / tourist housing	Following BODAH's protocol
	Housing cost (m2): rent / buy	Following BODAH's protocol
	Analysis of population movements: historical centres (heritage) - other areas	Following BODAH's protocol
	Rate and quality of employment in the monitoring areas (Contracts, duration of contracts and employment quality)	Following BODAH's protocol
	Analysis of the commercial offer in the monitoring areas	Following BODAH's protocol
	Local prices index	
	Analysis of the destination evolution of its commercial spaces in the monitoring areas: facilities and shops for tourists	Following BODAH's protocol
	Analysis of the destination evolution of its commercial spaces in the monitoring areas: hotels, bars and restaurants.	Public institutions don't have the information due to frequent changes in activity

Data gathering: people counting and surveys.

The data gathering specifically referred to people counting and surveys was accomplished in **2 different periods: August 17 to 23 (high season) and October 18 to 22 (mid season)**.



X BODAH Locations in SCQ:

1. Praza do Obradoiro
2. Praza da Quintana
3. Praza de Galicia (cruce Derby)
4. Porta do Camiño
5. Praza da Algalia de Abaixo

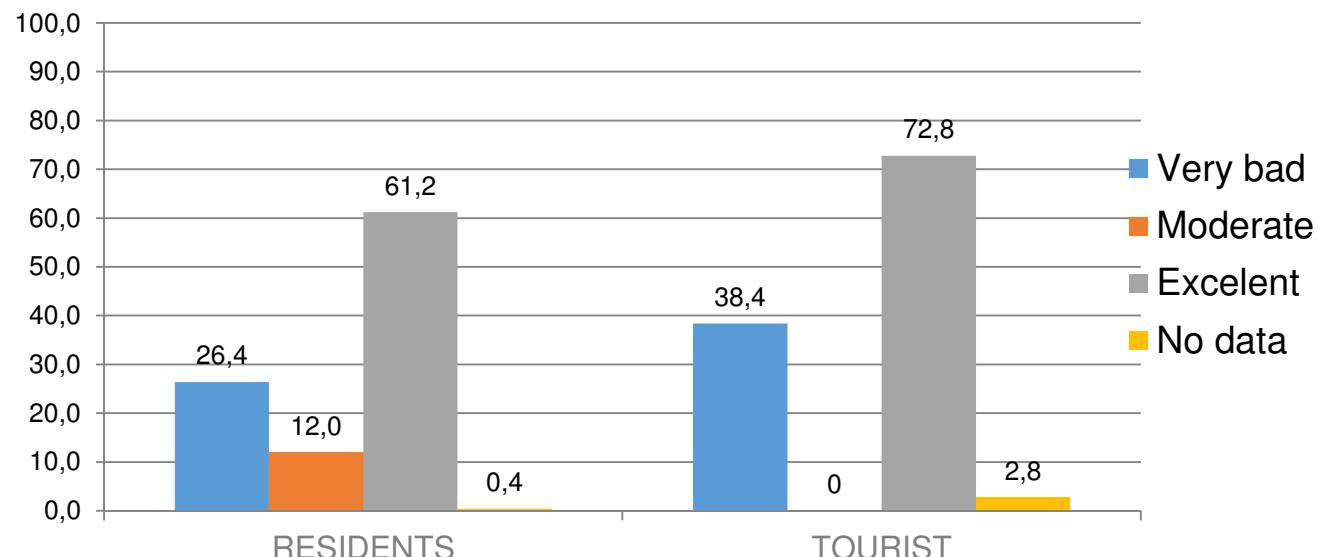
People counting: real concentration of people / saturation in heritage areas

- The indicator required the calculation of the number of people per square metre in the 5 critical monitoring points. **Reference: 0.92 m²/person**, the critical threshold as established in the "Protocol of Measurement" (following "Jacobs Method").
- None of the measurements exceeded the critical value of 0.92 m²/person, the highest being the one recorded in **Praza da Quintana, on 20 August at 12 noon, when 455 people were counted, with maximum values of 5.49 m² for each person.**



Surveys: Perception – Feeling of saturation (residents / tourists)

	RESIDENTS	TOURISTS
Very bad	26,4	38,4
Moderate	12,0	0,0
Excellent	61,2	72,8
No data	0,4	2,8



Social Networks

(E3) I.4.1 Real-time perception of saturation feeling: social networks

(E3) I.5.1 Real-time perception of security: social networks

(E3) I.6.1. Real-time perception of cleanliness and hygiene: social networks

- Users comments on Twitter and other social media (Instagram) were tracked down during August and October 2021 with the social media listening tool Sprout Social.
- Tracked keywords as indicated by the “Protocol of measurements”, linked to the city of Santiago and/or Compostela: Massification/ Crowded/ Insecurity / Hygiene / Sanitary conditions / Cleanliness
- The results were very scarce, showing that the selected keywords do not represent relevant entries in social media.

To be highlighted:

- August 2021 was a month of high tourist flow in Santiago de Compostela. In fact, despite the restrictions due to Covid, it only registered 1.5% fewer overnight stays than the same month in 2019. Hotel occupancy in September far exceeded the initial forecast and reached 69%.
- Notice the contrast between the Saturation (people counting) and Perception/feeling of saturation (surveys). Also the difference between tourist and residents perception concerning saturation.
- Social media listening unable to provide meaningful/useful results.

To better contribute to the BODAH project, **Turismo de Santiago de Compostela** suggested including the following 2 conditions in the tender specifications for the **SMARTIAGO**:

- The location of **12 counting cameras** in hotspots of the heritage area.
- The inclusion of **people counting**, which was not initially contemplated, with **special attention to pilgrims** - who might be easily recognizable due to their backpacks.



CONCLUSIONS:

- FSMLRPH “Protocol of measurement”: very valuable and usable in the future.
- Interesting data despite the pandemic and all the subsequent difficulties.
- **DATISFACTION:** satisfaction with data, which proved no saturation.



Results of the 1st phase-August showed less saturation than expected, as released by Turismo de Santiago :

La Voz de Galicia • Viernes, 8 de octubre del 2021 • **SANTIAGO** • L3

Un estudio sitúa a Santiago lejos, de momento, de la saturación turística

El proyecto Bodah realizó casi cien conteos en agosto en cinco plazas y rúas

R. M. SANTIAGO / LA VOZ

Santiago está lejos de la saturación turística según los datos preliminares del estudio que se está realizando dentro del proyecto europeo Bodah, una iniciativa que agrupa a ocho entidades de España, Portugal, Francia, Irlanda, Escocia y Gales y que lidera Turismo de Santiago. El proyecto pretende desarrollar nuevas herramientas y soluciones (con características propias de los destinos turísticos inteligentes) para fortalecer modelos de turismo sostenible que concilien los intereses de la población local y de los visitantes en ciudades con cascos históricos o espacios de particular interés cultural o patrimonial.

Eso requiere estudios que ayuden a recopilar, analizar y modelizar una amplia variedad de datos que Bodah está recogiendo ahora mismo en cuatro de las ciudades vinculadas al proyecto, para comprender mejor los flujos turísticos y ayudar a gestionarlos. Compostela es una de



A Quintana fue uno de los puntos objeto del estudio en agosto y en el que también se harán encuestas. P.R.

durante ese mes y ninguno bajó del umbral crítico, según los datos preliminares que la consultoría que se encarga del estudio ha facilitado a Turismo de Santiago. La

nivel de ocupación de esos espacios, cuestión que también mide este estudio, que arrancó en julio y concluirá en noviembre y que realiza encuestas para ello.

tir en el cambio de rumbo de un modelo que solo piensa, dice, en la masificación. CA habló de desbordamiento de la ciudad, aunque el edil del área, Sindo Guinarte,

Animan a ceder piezas de plata y azabache para una exposición en el 2022

SANTIAGO / LA VOZ

La asociación Ourives de Compostela programa una exposición para junio, julio y agosto del 2022 que muestre la aportación artística de una de las tradiciones artesanales de la ciudad, que fue centro de referencia en el trabajo del azabache a nivel mundial y llegó a contar con uno de los mejores centros en la historia de la platería peninsular. Poner en valor esa relación con ambos materiales es uno de los objetivos de esa muestra, que se celebrará en Fonseca y en la iglesia de la Universidad con el apoyo de Concello, Xunta, Diputación y USC y que comisariarán Ana Pérez y Fernando Martínez. Este último hizo ayer un llamamiento a los propietarios de piezas singulares para que las cedan para esa exposición. El Concello reunió ayer a la comisión de seguimiento del plan estratégico Ourives de Compostela.

Results of the 2nd phase-October confirmed previous conclusions – less saturation than expected, as released by Turismo de Santiago press conference:



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Os estudos do Proxecto BODAH confirman que non existe masificación do turismo en Santiago

23/03/2022 As conclusións do informe encargado por Turismo de Santiago no marco do proxecto Big and Open Data for Atlantic Heritage descarta problemas cos fluxos turísticos na zona monumental. Hoxe tamén se fixo público o vídeo de presentación de Santiago de Compostela como un dos destinos líderes do BODAH I.

O proxecto BODAH, iniciado a finais de 2019, contempla o deseño de solucións tecnolóxicas que recompilan datos de diferentes fontes para convertilos en coñecemento práctico. O proxecto, xa conseguiu definir un sistema de indicadores propio que determina que datos hai que medir e que se comezou a aplicar de forma piloto en catro ciudades: Santiago de Compostela e San Sebastián, Pau en Francia e Cork en Irlanda. Segundo explicou o concelleiro de Turismo, "BODAH ten coma obxectivo fortalecer un modelo de desenvolvemento sostible do turismo, dos fluxos de cidadáns e a redistribución dos seus impactos grazas ao uso de datos e de tecnoloxías intelixentes".

O primeiro dos estudos realizado para Turismo de Santiago, como líder do proxecto BODAH, tiña como fin, salientou Flavia Ramlí, "medir e entender mellor o comportamento tanto dos visitantes como dos residentes das cidades patrimoniais do Espazo Atlántico para facilitar a súa xestión e lograr un turismo sostible".

O ámbito do estudo se circunscribe ao casco histórico, que recibe a maior parte do turismo da capital galega. Dentro do ámbito da zona monumental, identifícaronse como "puntos críticos" determinados espazos urbanos, que en Santiago foron os seguintes: Praza do Obradoiro, Praza da Quintana, Praza de Galicia, Porta do Camiño e Praza da Algalla de Abaixo.

Rolda de Sindo Guinarte e Flavia Ramíl para presentar o proxecto BODAH

Turistas na praza da Quintana

Así, grazas a este informe respóstase a cinco cuestións fundamentais: que lugares son os más visitados, cantas persoas reciben, como afecta ese tránsito ao lugar en cuestión, que percepción ten o turista e o residente e que efectos sociais e económicos xeran na cidade.

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THANK YOU!

