3.2.1– List of sustainability indicators

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INDEX

1. Introduction

Coordinated by AVT and with the support of FSMLRH, the system of indicators developed in the framework of the HERIT-DATA project has been conceived as a set of information that allows us to observe the sustainability of different heritage sites under the pressure of tourism. It is important to point out that the partnership has taken special care to develop a system that is flexible to the different types of locations (historic centres, natural spaces, archaeological sites or cities) and has also taken into account mass tourism in general, and cruise tourism in particular, since in several scenarios of the project pilots present this characteristic. Finally, it has been considered necessary that the work be replicable to other destinations of equivalent conditions in the European space.

The developed work has approached this task in a different way to the one designed in the original project, in the beginning the project had a starting approach that took as reference the ETIS system, from the knowledge of this system and other related ones the partnership decided to promote an own development that adapted to the needs that were glimpsed in the framework of the project.

Furthermore, all those criteria and indicators can and should be re-evaluated and re-adapted, according to the principal interests in each destination. The main proposal is to approach the development process to the destinations group of management, trying to use the indicators to describe the most important characteristics of the destinations chosen, according to their typology and expectations for the future.

The document describes this process, as well as the list of indicators generated.

2. Background

Since tourism has become a gradually more powerful item of discussion in Europe during the recent decades due to the impact that it makes itself, the European Commission decided to focus the effort of its policies in the study of the effects and consequences of tourism in the most popular destinations in Europe. Also, another issue of interest that has recently gained importance in European objectives, is the concept of sustainability and sustainable development that can take part of almost any activity all around the countries. Therefore, the main objective of this new project, is the study of the reality of tourism activity and its effects in the most tourist places and the people who live in.

All these goals were possible by the launch of the European Tourism Indicator System (ETIS) in February 2013, including a two years' revision, published in March 2016, due to the necessities shown as the process was going on. In general terms, it is a useful toolkit focused on the measuring of tourism performance which aim helping destinations to manage and monitor their tourism activity, to make them sustainable, viable and attractive for everyone.

But not only this way of measurement has been the unique one proposed for the right management, monitoring and preservation for tourism destinations. Others institutions, organism and authorities, such as the Mediterranean Cruise Maritime Tourism or the University of Thessaly in Greece, has been studying the application of the ETIS criteria on their particular necessities. In that way, new indicator systems appeared to be used and compared depending on the main objectives desired in the project: SIROCCO System (Sustainable Cruise Tourism Certification System) and UTH System (the ETIS system completed with the CO-EVOLVED destination typology by the University of Thessaly).

3. Sustainable tourism

The actual situation of tourism, is defined by an idea which is called "sustainable tourism". This new concept, applied on the sustainable tourist destinations and sustainable development, has gradually modified the way of understanding this new reality, including other elements which take place during the process. So, by integrating a number of key factors and other new dimensions previously ignores, at the present, the aim of this project could be explained as Ioannis Spilanis said:

"The economic and social performance of the tourism activities need to be correlated and co-evaluated with the environmental performance and impacts on tourism destinations in a long term perspective to ensure the conditions of development for future generations."   *(Spilanis I. et al, 2009)*

3.1.   Key questions (what, why, where, how, etc.)

Therefore, once the idea of sustainable tourism is going to be the main concept of the report, our first aim would try to define the principal tools and system by the terms and conditions related to this type of tourism: the ETIS (European Tourism Indicator System)

WHAT?

ETIS are a system which offers a sustainable management, by the information and monitoring tools designed for tourism destinations. It has a process for collecting and analysing data, focused on recognition of the impact of tourism on those destinations.

WHY?

For too many time, the policies made for statistics and data collection to manage a sustainable tourism, relied on a reduced number of objective methods to monitor the destination. However, all this information collection should be studied on a broad range of relevant issues (such as the impact on local economy, or sociocultural and environment values) trying to get an accurate data to work with.

WHERE?

For the purposes of the ETIS system, and so on the other indicators systems, a number of destinations or pilot areas should have been selected and defined. That means, all those potential areas promoted, defined and attractive for the tourist, and also able to be measured and managed.

HOW?

Once the place to manage is chosen, we should continue by using the ETIS Toolkit, with the seven step-by-step guide of implementation and the set of all core and supplementary indicators given. Thus, covering all the dimensions of the process of data collection, it will be possible to ensure a good new policy action and customer satisfaction.

HOW MANY?

Since not all the destinations will be able or interested on getting the data collection proposed in the ETIS Toolkit, the indicators should be adapted and specified for each case in other to have good relevant criteria for the information collected. Therefore, the total number of indicators and its categories can substantially change.

HOW LONG?

The period stablished for each destination chosen could be different and specified for each one, but always with a long-term vision. Due to the factor that destination managers could wish to collect particular od additional data and information for their studies, the time of measurement can easily vary. However, stablishing a reference value for this process, a minimum of 2-years-period is recommended.

FOR WHO?

Due to it voluntary management, all those indicators systems should be applied only in destinations where exist a sector of management and stakeholders, public or private, interested on it. Thus, it is possible to create what it is called a Stakeholder Working Group (SWG), always led by a local and motivated destination coordinator called "champion". The ETIS Toolkit published in February 2013, determined a SWG as "a collection of organisations and individuals in the destination with an involvement and interest in the tourism industry."

4. Starting point of the indicator system

Since the European Tourism Indicator System (ETIS) is not designed to be a coastal and maritime specific study, as it has been noted in the initial documentation process, a second and third set of destination indicators are formed – both from ETIS and other supplementary sources, for those certain areas to be analysed. Therefore, the SIROCCO and THESSALY indicators system are proposed to address the specific issues of coastal areas and maritime activities, according to the characteristics and particularities of the predominant type of tourism activity in each type of destination around the Mediterranean.

4.1.   ETIS system bases, objectives and organising authority

The bases of the ETIS´ principle, used for the next groups od indicators to be developed, is that destination responsibility, ownership, and decision-making are all shared. Therefore, engaging all type of different stakeholder groups during the process of structuring, collecting and reporting information, is a powerful way to undertake an effective destination management.

ETIS is made up of a set of Indicators, a Toolkit, and a Dataset. These can be used on a voluntary basis, together or integrated into existing destination monitoring systems. The system is flexible, as it can be expanded or contracted to meet the needs of the specific destination. It also provides comparison over time and a gives us good basis for sustainable destination management. Besides, since march 2016, a list of supplementary indicators is suggested for further specialization on the destinations' special needs, covering issues such as cultural routes and accessible tourism.

Furthermore, these ETIS are based on European initiatives to promote tourism sustainability. For example, The Ecolabel award scheme aims to promote products and services with a reduced environmental impact during their entire life cycle and to provide consumers with accurate, non-deceptive, science-based information on the environmental impact of products and services. It is a voluntary scheme, which means that anyone interested on it can choose to apply for the label for their products & services.

4.2.   Sirocco similarities and differences with the ETIS system

For SIROCCO and SCTCS, ETIS can serve as the starting point and the backbone of the SCTCS due its wide recognition by the tourism industry and its coverage of all three sustainability components, i.e. economic, environmental and social sustainability. However, customisation of its individual indicators will be required as these refer to the tourism industry overall and cannot be applied in their present form to the cruise tourism segment.

The aim of this report is to develop a certification system for sustainable cruise maritime/coastal tourism value chains in the MED, by building upon, integrating components, and extending and customising indicators of previous relevant initiatives, to help cruise value chain actors make informed decisions to enhance cruise tourism's sustainability (economic, environmental, social) in a balanced way.

The proposed SCTCS includes an indicator structure linking each indicator to the respective cruise value chain actor who can provide the required data and proposing data sources and collection methods.

On the other hand, GSTC System covers all three sustainability components, i.e. economic, environmental and social sustainability, and can provide useful ideas for indicators for the SCTCS, as for example the ones for providing tourists with cultural & environmental guidelines for visitor behaviour in sensitive sites and the specific focus on seasonality.

We can also take into account the Travelife System, which is a certification system that allows tour operators, travel agents and accommodation providers to monitor and self-assess their sustainability performance. The Travelife system can provide useful ideas for indicators for the SCTCS as it addresses the role of the tour operator, incorporating various functions within the cruise value chain. Travelife is also useful as it follows a value chain logic (sustainable transport, sustainable excursion, etc.).

As one more actor, serving the principle of 'ports-helping-ports' EcoPorts brings together a network of port professionals from several European ports committed to exchange views and practices and to commonly work towards the improvement of the sector's environmental performance in line with the principles of voluntary self-regulation. It has a more operational focus than the cruise certification system and it focuses directly to one of the nodes of the cruise value chain, the port. However, proposed criteria such as the one for established procedures to share information with other stakeholders, are quite important as part of the SCTCS.

The EU Ecolabel has a very operational focus, and as it currently addresses only the tourist accommodation services its relevance to the cruise certification system is low. This is probably due to the fact that the main use of the Ecolabel is currently for products and not services. In this case, maybe the SCTCS could be used as input for developing a cruise-specific component of the EU Ecolabel in the future.

4.3. UTH similarities and differences with the ETIS system

In the context of CO-EVOLVE, indicators are categorized into three distinctive types following international practices. The first refers to a set of core indicators that will be the common basis for comparison of the level and trends of sustainable development for all types of destinations. Examining the European Tourism Indicator System (ETIS), 40 core indicators have been selected - as more relevant to sustainable coastal tourism and the CO-evolve concept - to address the key issues for tourism sustainability in coastal areas: economy, society and environment.

4.4. Comparing systems

Based on the analysis of the certification systems presented in the previous section, a number of fundamental principles for developing a SCTCS can be identified as the following:

- Compatibility and contribution to existing initiatives (ETIS): the SCTCS will be built adopting the structure of ETIS and will customise and extend it to cover the specific needs of the cruise tourism sector.

- Value Chain focus: the SCTCS will take into account actor-based views of other systems (such as Travelife's), but will keep the whole cruise Value Chain as its focus.
- Sustainability breadth: the SCTCS will take into account all three sustainability components: economic, environmental and social sustainability.

For the Cruise Value Chain presented uses the international tourist as the focal point, depicting the consecutive activities taking place before, during and after the cruise trip. For each activity, the main entities involved are shown beneath it. Furthermore, two additional indirect components that interact with the cruise value chain are also shown: the supplies of the cruise line and the regulators of cruise tourism, classified as shown:

- Pre- and post-cruise VC activities & actors (Cruise booking, Transportation from / to place of residence, Accommodation)
- On-cruise VC activities & actors (Port services, Sea transport & lodging, Destination services)

In the CO-EVOLVE destinations typology, regarding the specific tourism characteristics, the dominant types of tourism identified in Mediterranean coastal areas are:

- Beach / Maritime tourism
- Urban / Cultural tourism
- Cruising
- Recreational boating
- Nature / Ecotourism

In this context, the selected indicators for each type of destination for the areas shown before, are analysed on the basis of four main topics or dimensions:

- Socio-economic indicators. They outline the main socioeconomic dimensions that should be taken into consideration to provide information on the economic and social factors associated with a specific tourism activity.
- Environmental indicators. They outline the condition and trends in the state of the ecosystem as well as the main environmental pressures that derive specifically from different tourism activities (for example the volume of waste accepted for disposal at a port at cruising destinations and the percentage of soil loss on trails at nature/ecotourism destinations).
- Management and optimization of key assets to destination type. They outline the state, degree or performance of the key characteristics (assets) that are essential for the existence and sustainable development of the identified tourism activities (for example the number of blue flags in beach/maritime tourism destinations indicates both the state of sea water quality and the performance of related management plans).
- Governance. They outline the processes that public authorities in association with local communities, NGOs and other stakeholders use in order to manage coastal area through policies, action plans and programmes.

4.5.   Data analysis comments

Once we have studied and revised the previous differences between the main system of indicators proposed (ETIS) and the other two systems chosen to work with (SIROCCO and UTH), our next proposal is to compare and relate all of them in a more extending study. Thus, we will be able to perceive and know all the common and different points of view during the process, and we will be better acknowledged to manage and take the best decision for further steps in the project. So, in this chapter of the report, we will see and analyse the principal methods used during the comparison process: a data table working sheet.

Nevertheless, the data sheet proposed underneath has a very extended number of groups, trying as a final goal to classify all the indicators founds and their possible combinations. That is why, to have a better understanding of the global analysis, those groups and categories have been selected individually and remarked in isolated images one by one; keeping always a reference point to allow everyone a better understanding of the relation and the common marks between them. However, for further comprehension of the total process, the excel-table-sheet document is also available in an extra work file if needed.

After the task of gathering and selecting information, the first and principal categorization of the final result shows a number of three different groups of indicators on the top, shown each of them by a particular reference colour:

- ETIS Group in yellow.
- SIROCCO Group in pink.
- UTS Group in green.

In addition, in this case placed on the left side, the other main categorization made, shows us the terms and criteria of the four dimensions of sustainability named by the European Commission: management, economy, social-cultural and environment.

Secondly, as a particular and personal input in the study, new categories have been included to give more information to all the indicators selected. Therefore, the old and already information given, is visible in dark blue; meanwhile, the new data gathered is marked by a light blue colour. Also, trying to clarify some decisions made all over this process, an extra column is given for extra explanations.

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	SUMMARY TABLE						
1. GROUP	ETIS		SIROCCO		THESSALY		
2. PERIOD	ANCIENT (First Edition)	ACTUAL (2 years Revison)	PREVIOUS STUDIES (ETIS, GSTC System, Travelife System, EcoPorts System, EcoLabel Scheme)	ACTUAL (Maritime / Coast Objectifs)	PREVIOUS STUDIES (ESPON, ETIS, WTO Indicators, OECD Indicators)	ACTUAL (Particular Objectifs)	
3. YEAR	FEBRUARY 2013	MARCH 2016	until APRIL 2017 (First Draft)	MAY 2017	until MARCH 2017 (Last Data Collection)	MARCH 2017	
4. RESPONSIBLE ORGANIZATION	TSG and EC promoted by UNWTO and GSTC	TSG and EC promoted by UNWTO and GSTC	TSG and EC / GSTC / ABTA / ESPO / EU	CERTH, IMO, EC	TSG and EC / WTO / OECD	CO-EVOLVE based on WTO and OECD	
5. NUMBER OF INDICATORS	27 GREEN + 40 BLUE	43 GREEN	Depends on the most relevant Indicators chosen in each Organisation's Report	44 GREEN	Depends on the most relevant Indicators chosen in each Organisation's Report	24 D.I + 24 D.II + 32 D.III + 26 D.IV + 30 D.V	
6. TOTAL INDICATORS	67	43 + Supplementary		44		136	
7. CLASSIFICATION OF THE INDICATORS (Sections and Criterias)	A. Destination Management B. Economic Value C. Social and Cultural Impact D. Environmental Impact	A. Destination Management B. Economic Value C. Social and Cultural Impact D. Environmental Impact *Supplementary Indicators	Depends on the most relevant Categories chosen in each Organisation's Report	A. Destination Management B. Economic Value C. Social and Cultural Impact D. Environmental Impact	Depends on the most relevant Categories chosen in each Organisation's Report	NEW CLASSIFICATION TYPES (Sections and Destinatons)	
						C. Management and Optimization A. Socio - Economic Values D. Governance (new category) B. Environmental Impact	D.I _ Beach / Maritime Tourism D.II _ Urban / Cultural Tourism D.III _ Cruising D.IV _ Recreational Boating D.V _ Nature / Ecotourism
8. FURTHER INFORMATIONS	GREEN = CORE / ESSENTIAL BLUE = OPTIONAL / ADITIONAL (It also includes the seven-step guide implementation)	NOT BLUE INDICATORS BUT ADITIONAL INDICATORS: 1. Maritime and Coastal Torusim 2. Accessible Tourism 3. Transnational Cultural Routes	ONLY the Indicators and Categories which are more relevant to the final report are selected	SCTCS criteria adapted to the ETIS criteria	ONLY the Indicators and Categories which are more relevant to the final report are selected	ETIS completed with CO-EVOLVED destinations typology	
9. INITAITIVES AND MECHANISMS	EMAS / EU-Ecolabel / TOUERM / CSR	EMAS / EU-Ecolabel / TOUERM / CSR	ETIS criteria / Destination criteria (GSTC-D) or Hotel&Tour Operator criteria (GSTC-H&TO) / ABTA Operator System / SDM and PERS / EC-Regulation	EU Commission, Directives and Regulations / Value Chain (VC) activities & actors	ETIS criteria / Towards Green Growth: Monitoring Progress/ Framework for Evaluation of Tourism Policies and Programmes/ OECD Well-Being Indicators	ETIS criteria / Towards Green Growth: Monitoring Progress/ Framework for Evaluation of Tourism Policies and Programmes/ OECD Well-Being Indicators	
10. SUGGESTED ACTIONS	Tested and evaluated: 1. Over 100 destinations in Europe 2. During 2 years-period	1. Objectives of United Nations: 2030 (agenda for sustainable development) 2. UNWTO based on the 10-year framework programme of sustainability (10YFP)	Customisation of the individual indicators to be applied in maritime / coast / cruise tourism sector	¿ ? (same as the ETIS)	Address the new indicator's categorization and classification for tourism sustainability in coastal areas and destinations selected	¿ ? (same as the ETIS)	
ACRONYM MEANING	TSG_ Tourism Sustainability Group / EC_ European Commission / UNWTO_ United Nations World Tourism Organisation / GSTC_ Global Sustainable Tourism Council / EMAS_ Eco-Management Audit Scheme / TOUERM_ Tourism Environment Reporting Mechanism / CSR_ Corporate Social Responsibility		GSTC_ Global Sustainable Tourism Council / ABTA_ Association of British Travel Agents / ESPO_ European Sea Ports Organisation / EU_ European Union / SDM_ Self Diagnosis Method / PERS_ Port Enviromental Review System / CERTH_ Centre for Research and Technology Hellas / IMO_ International Maritime Organisation / SCTCS_ Sustainable Cruise Tourism Certification System		ESPON_ European Observation Network for Territory Development and Cohesion / WTO_ World Tourism Organisation / OECD_ Organisation for Economic Co-operation and Development / CO-EVOLVE_ Co-Evolution of human activities and natural system for sustainable coastal and maritime tourism		

Furthermore, in the data sheet analysis, is easy to perceive the relation stablished between the ETIS Group (selected as the main point of reference all along the report) and the SIROCCO Group. This is possible due to re-interpretation and re-adaptation of the ETIS made by SIROCCO System when they designed their particular indicators, adjusted to their necessities and program of cruise, coast and maritime tourism: the SCTCS. Therefore, all along the SIROCCO excel-table-sheet images, the relation explained before is visible by the "ETIS criteria" and "code number or indicator reference" columns placed on the left.

However, for the final group, the relation explained above does not exist. As we can remark, within the third group of indicators system, UTH, the general structure used is a different one. For this case, instead of taking the four dimensions of sustainability to divide them in individual criteria, the process chosen applies those four dimensions of sustainability given by the European Union into the five new categories proposed as the new five possible destinations:

- D.I Beach and Maritime Tourism
- D.II. Urban and Cultural Tourism
- D.III. Cruising
- D.IV. Recreational Boating
- D.V. Nature Ecotourism

In general, having an overall look, a lot of factors that take part in the tourism activity are shown on the comparative data sheet analysis. However, the part of our study where we are specialised and interested in, does not appear as relevant as it maybe should be: the role of the cultural heritage.

Therefore, for future studies and further process of actions and data collection, much more actions and indicators focused on all types of social and cultural heritage may take place during the work and investigation.

5. Design of the HERIT-DATA indicator system

The purpose is to incorporate a system of indicators that allows monitoring relevant information (HERIT-DATA) on the background, behaviour, characteristics and impact of this saturation. This system must allow us to predict, monitor in real time and obtain a scope of the effects of this saturation in a predefined building, space or heritage nucleus. The HERIT-DATA system, therefore, must generate relevant information to reinforce the actions and decision making for a sustainable management of the selected heritage through the control of tourist saturation.
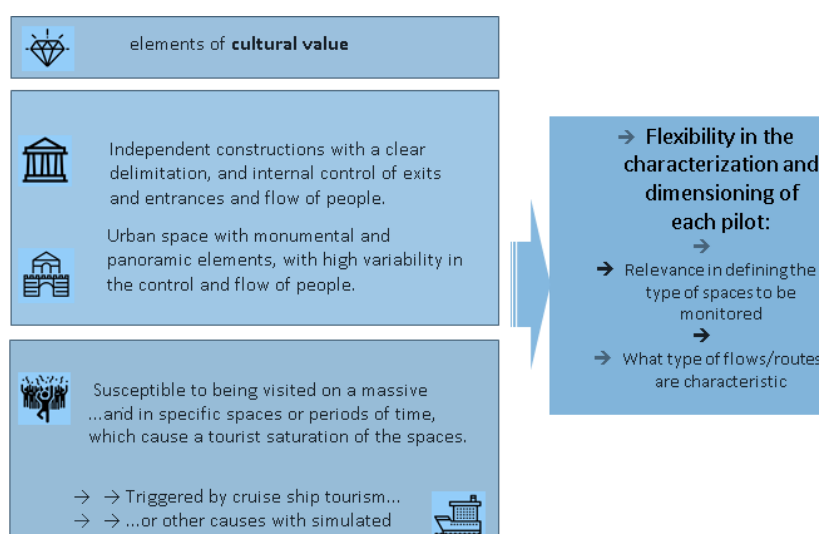
The central problem is defined as that of "Tourist Saturation" in spaces of cultural value susceptible to being visited in a massive way in specific spaces or periods of time and fundamentally provoked by cruise ship tourism.

The objective is to incorporate a system of indicators that allows monitoring relevant information (Herit Data) on the background, behaviour, characteristics and impact of this saturation. This system must allow us to predict, monitor in real time and obtain a scope of the effects of this saturation in a predefined building, space or heritage nucleus. The HERIT-DATA system, therefore, must generate relevant information to reinforce the actions and decision making for a sustainable management of the selected heritage through the control of tourist saturation.

A central aspect is the characterization of the "tourist saturation". This concept is especially sensitive to the aspects of identity and tourist management of each tourist area or place, therefore, each city must previously characterize how the saturation behaviour is and incorporate this specificity into the monitoring system: the HERIT-DATA system must maintain a certain degree of flexibility to adapt to each city - place, and not the other way around.

However, it is necessary to define some common elements when determining both how to measure the central problem: tourist saturation, and when characterizing a common monitoring system.

Does the measurement of this set of dimensions allow us to accurately characterize the episodes and changes in the saturation object of the monitoring system, is there any aspect or any relevant information need missing?

DENSITY. It is clear that it is relevant to have precise information on the number of tourists, where, and how long they are in the different itineraries of buildings and heritage nuclei. This measure should define an objective saturation index based on the density of people per area, and also ranges between which to establish a saturation scale.

FLOW. Likewise, the characterisation of the flow - itinerary defines not only a fixed photograph of the tourist behaviour, but also a moving scene of the density of people in the spaces being monitored.

PERCEPTION. On the other hand, it is relevant to incorporate a subjective measure of saturation related to the perception of the users (tourists and residents). Not only as a measure of the effects of saturation on the person, but as an indicator of real experience under different levels of saturation.

CHANGES. And finally a dimension of data that account for changes in the effects caused by saturation episodes, and that allows us to monitor the overall behaviour of the problem.

In general, the set of data provided by the different cities, point in greater or lesser weight to this set of saturation characterization dimensions. A key aspect is (regardless of the characteristics of each city) to homogenize and give coherence to the set of dimensions linked to data that really contribute to the dimension we want to measure.

A second central aspect consists of giving value to the monitoring system according to the object, results and, in short, to the intended use and analysis of the data. The aspects that define what for? are central to this type of system and should be part of its design.

At least 3 levels of "data use" are identified and proposed depending on the type of analysis and decisions in sustainable heritage management.

This set of levels incorporates a second strategy of data analysis, oriented to the use of the system, through three ways of looking at saturation:

A predictive and/or preventive level, with the incorporation of relevant data that anticipates saturation or at least allows early access to a set of predictors on which may be the possible characteristics of saturation in a given period and place. These predictors can give us at least two types of information:

- Short-term predictive, i.e. data that allows us to predict the characteristics of a saturation situation with a short period of anticipation (e.g. 1 day / 1 week). For example, it has to do with the possibility of knowing beforehand how many passengers a cruise company is planning to disembark according to reservation or volume of passengers before arrival.
- Predictive in the medium or long term, i.e. data that allow us to predict the characteristics of a saturation situation with long anticipation, due to the fact that they are predefined flows (seasonal, holidays, key dates, etc.).

A sensor level, with the incorporation of data that shows a photo in real time of the state of saturation of the spaces being monitored, in relation to the set of dimensions that define the problem of saturation: flow density of people, perceptions, environmental data and pressure on infrastructures and spaces, etc.

And a strategic level, closely related to the measurement of effects and the establishment of a global picture of the behaviour of the saturation problem. This level visualizes the set of effects, the characterization of the different elements of the system (tourist typology, heritage type, etc.). It allows to make a deep analysis of the problem and to establish the causes of the problem, and in addition, to adjust the monitoring system.

In general, the set of data provided by the different cities, do not specify this level of use of the system, do not include variables or data to define this use. The system must incorporate this dimension for its management, and must incorporate indicators that reflect the 3 levels.

Finally, it is considered necessary that the system incorporates characterization data of the set of elements that make up the monitoring, and that can condition the analysis and interpretation of the data according to the different forms of tourism management in each city. Therefore, each city must propose some characterisation variables, at least at the following levels:

- Characterisation of reservations and types of routes through heritage spaces: System of tourist packages, reservations and itineraries.
- Characterisation data of heritage spaces: building, historic centre.
- Tourist characterization data.
- Economic data.
- Historical data on the volume and impact of tourism in the city.

In general, in the set of data provided by the different cities, some characterisation variables are specified, specifically on the typology of the tourist and economic data.
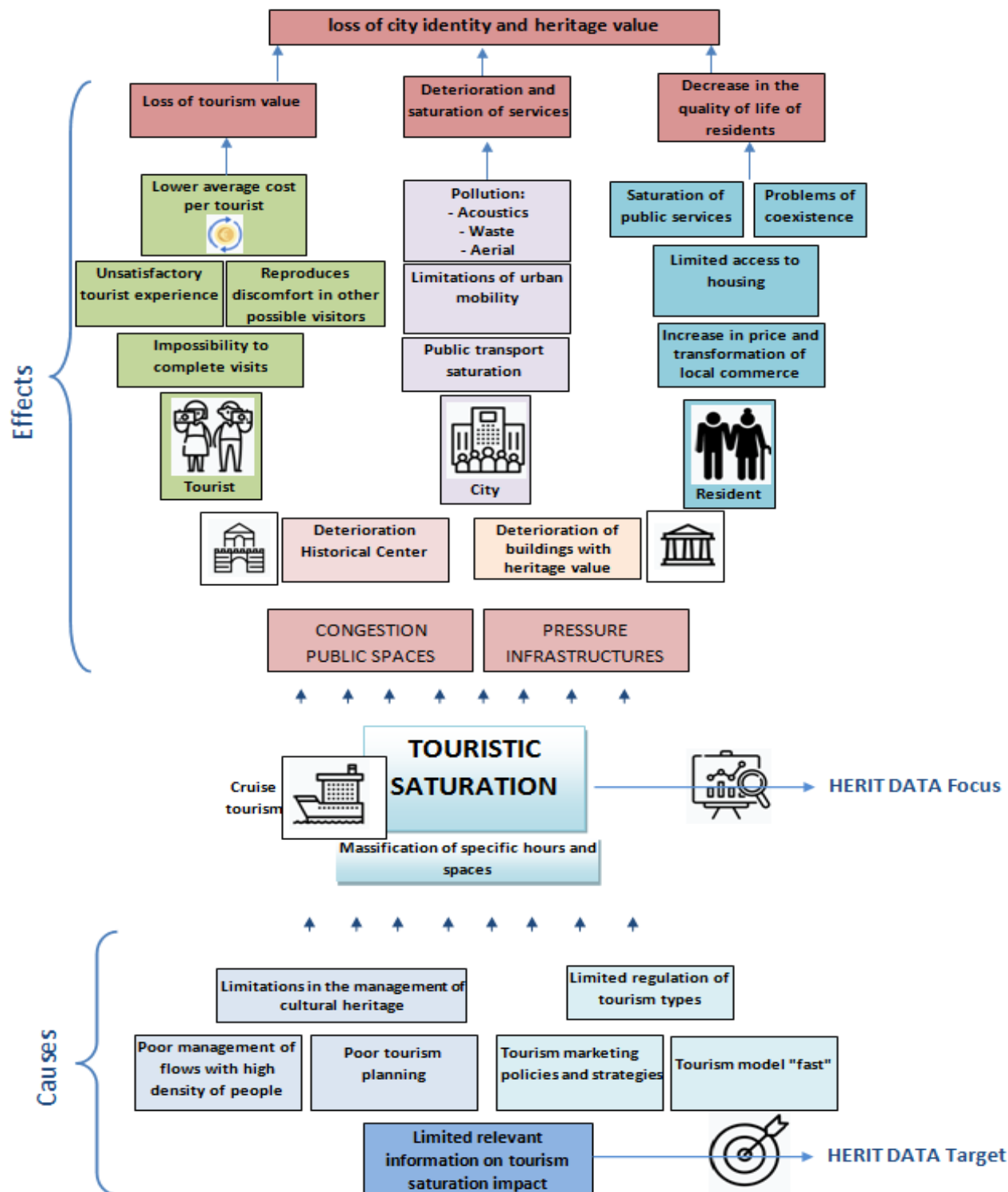
6. HERIT-DATA Indicator system

6.1. Indicator groups

E.1 Building / Site Capacity Overcrowded

E.2 Tourist City Flows

E.3 People perception of overcrowded places

E.4 Capacity and quality to services access (heritage area)

E.5 Residential quality site

E.0 Characterization of areas of heritage value

6.2.   Indicator list

(E1) I.1   Preservation Level in optimal conditions (environmental and architectural) of sites of cultural value

(E1) I.2   Optimal levels of overcrowding of sites of cultural value

(E1) I.3   Optimal levels of Tourists overnights

(E2) I.4   Optimal levels of overcrowding of people transit

(E3) I.5   Tourists perception about adequacy of Overcrowded site experience

(E3) I.6   Residents perception about adequacy of Overcrowded site experience

(E3) I.7   Personal perception about adequacy of Security site experience

(E3) I.8   Personal perception about hygiene, sanitation and cleaning conditions site experience

(E3) I.9   Personal perception about cultural heritage preservation site experience

(E4) I.10 Optimal capacity of the urban cleaning service and decorum

(E4) I.11 Capacity to maintain optimal citizen security

(E4) I.12 Capacity to ensure permitted ranges of contamination - basic environmental conditions in heritage areas

(E4) I.13   Fluid access to public transport in heritage areas

(E4) I.14 Fluid access to parking spaces around heritage areas

(E5) I.15 Optimal levels of access to housing in tourist areas by local population

(E5) I.16 Optimal levels of access to Employment quality in tourist areas by local population

(E5) I.17 Optimal levels of access to local stores and products in tourist areas by residential population

(E5) I.18 Higher prices in target areas

(E5) I.19 Lack of identity of the traditional activities within the UNESCO area

(E0) 0.20 Characterization areas / sites of tourist value and tourism profiles

(E0) 0.21 Access capacity charge (heritage area from port)

(E0) 0.22 Capacity charge heritage area

6.1.   Indicator sheets

(E1) I.1 — Preservation Level in optimal conditions (environmental and architectural) of sites of cultural value

indicator components

(E1) I.1.1 — Environmental levels Sites

QUESTION FOCUS

What are the environmental conditions of the site? Are they optimal for preservation and habitability?

(E1) I.1.2 — Cost Investment - Maintenance sites

QUESTION FOCUS

Are the costs necessary for the preservation of cultural heritage being covered?

(E1) I.2   Optimal levels of overcrowding of sites of cultural value

indicator components

(E1) I.2.1   Real saturation levels of people / spaces

QUESTION FOCUS

How many people are there in the place-space?

Is the number of people the optimum to ensure safety - comfort?

(E1) I.2.2   Expected saturation levels of people / spaces

QUESTION FOCUS

How many people will we receive and when?

(E1) I.3   Optimal levels of Tourists overnights

indicator components

(E1) I.3.1	**Overnights/(number of beds in un-official accommodation*30)**
QUESTION FOCUS	
How much the tourism flows saturate the accommodation capacity? (official and un-official)	

(E1) I.3.2	**Cost Investment - Maintenance sites**
QUESTION FOCUS	
How much the tourism flows saturate the accommodation capacity? (official and un-official)	

(E1) I.3.3	**Tourists overnights in official accommodations / number of residents (monthly) (georeferred)**
QUESTION FOCUS	
What is the socio-economic (population) impact of the tourist flows?	

(E1) I.3.4	**Tourists overnights in un-official accommodations / number of residents (monthly) (georeferred)**
QUESTION FOCUS	
What is the socio-economic (population) impact of the tourist flows?	

indicator components

(E1) I.3.5	**Tourists overnights in all types of accommodations / number of residents (monthly) (georeferred)**
QUESTION FOCUS	
What is the socio-economic (population) impact of the tourist flows?	
(E1) I.3.6	**Ratio between the number of tourists overnights and the number of residents within a significant neighbourhood (to be defined according to the characteristics of the place or building, for example the UNESCO center)**
QUESTION FOCUS	
What is the socio-economic (population) and environmental (squared mile/meters) impact of the tourist flows around a specific site or building?	

(E2) I.4 Optimal levels of overcrowding of people transit

(E2) I.4.1 Detection real transit of nº people / area / time

QUESTION FOCUS

How many people are there, where, when and with what trajectory?

(E2) I.4.2 Analytics anticipated reserves management: prediction of critical values agglomerations

QUESTION FOCUS

How many people will we receive, where, when and with what planned itineraries?

indicator components

(E3) I.5 — Tourists perception about adequacy of Overcrowded site experience

(E3) I.5.1 — Real time percepción overcrowded: Social net

QUESTION FOCUS

Are tourists and residents satisfied with comfort in heritage spaces?

(E3) I.5.2 — Index perception post-experience overcrowded (sample)

QUESTION FOCUS

Are tourists and residents satisfied with comfort in heritage spaces?

indicator components

(E3) I.6   Real time perception overcrowded: Social net

indicator components

(E3) I.6.1   Environmental levels Sites

QUESTION FOCUS

Are residents satisfied with comfort in heritage spaces?

(E3) I.7   Personal perception about adequacy of Security site experience

indicator components

(E3) I.7.1   Real time perception Security: Social net

QUESTION FOCUS

Do tourists and residents perceive the environment as safe?

(E3) I.7.2   Index perception post-experience Security (sample)

QUESTION FOCUS

Do tourists and residents perceive the environment as safe?

(E3) I.8 — Personal perception about hygiene, sanitation and cleaning conditions site experience

indicator components

(E3) I.8.1 — Real time perception about hygiene, sanitation and cleaning conditions: Social net

QUESTION FOCUS

Are tourists and residents satisfied with the cleanliness and hygiene of heritage spaces?

(E3) I.8.2 — Index perception post-experience about hygiene, sanitation and cleaning conditions (sample)

QUESTION FOCUS

Are tourists and residents satisfied with the cleanliness and hygiene of heritage spaces?

(E3) I.9	Personal perception about cultural heritage preservation site experience

indicator components

(E3) I.9.1	Index perception post-experience cultural heritage preservation (sample)
QUESTION FOCUS	
Do tourists and residents meet expectations for the conservation of the heritage space and experience?	

(E4) I.10   Optimal capacity of the urban cleaning service and decorum

indicator components

(E4) I.10.1   Ratio people / baskets / containers

QUESTION FOCUS

To what extent is the waste collection and cleaning system adapted to the volume of people and areas in certain periods of time?

(E4) I.10.2   Volume of solid waste collection

QUESTION FOCUS

To what extent is the waste collection and cleaning system adapted to the volume of people and areas in certain periods of time?

(E4) I.10.3   Intervention ratio hygiene service by area

QUESTION FOCUS

To what extent is the waste collection and cleaning system adapted to the volume of people and areas in certain periods of time?

(E4) I.11 Capacity to maintain optimal citizen security

(E4) I.11.1	**Crime rate (tourism and general) in target area (EUROSTAT indicators)**
QUESTION FOCUS	
idem in relation to security environment in the face of crime?	

indicator components

(E4) I.12 — Capacity to ensure permitted ranges of contamination - basic environmental conditions in heritage areas

indicator components

(E4) I.12.1 — Air pollution ranges in heritage environment stations

QUESTION FOCUS

idem in relation to basic environmental conditions?

(E4) I.12.2 — Range of noise pollution in heritage sites

QUESTION FOCUS

idem in relation to basic environmental conditions?

(E4) I.13 Fluid access to public transport in heritage areas

indicator components

(E4) I.13.1   Waiting times in main transport public

QUESTION FOCUS

idem in relation to transport system in Heritage areas?

(E4) I.14 Fluid access to parking spaces around heritage areas

indicator components

(E4) I.14.1 **% of free parking spaces in parking areas around the UNESCO center (daily).**

QUESTION FOCUS

idem in relation to parking systems around the Heritage areas?

(E5) I.15 — Optimal levels of access to housing in tourist areas by local population

indicator components

(E5) I.15.1 — Residential / tourist housing ratio

QUESTION FOCUS

Degree of turistification of the area: do residents have access to housing and in adequate conditions?

(E5) I.15.2 — Housing value (m2): rent / buy

QUESTION FOCUS

Degree of turistification of the area: do residents have access to housing and in adequate conditions?

(E5) I.15.3 — Population movement flow analysis: historic center - other areas

QUESTION FOCUS

Degree of turistification of the area: do residents have access to housing and in adequate conditions?

(E5) I.16   **Optimal levels of access to Employment quality in tourist areas by local population**

indicator components

(E5) I.16.1   **Rate and quality employment in target areas**

QUESTION FOCUS

Degree of turistification of the area: do residents have access to employment and in adequate conditions?

(E5) I.17   Optimal levels of access to local stores and products in tourist areas by residential population

indicator components

(E5) I.17.1   Analysis of the commercial offer in the target area

QUESTION FOCUS

Degree of tourism in the area: do residents have access to basic products in local shops?

(E5) I.18   Higher prices in target areas

indicator components

(E5) I.18.1   Local price index

QUESTION FOCUS

Degree of turistification of the area: To what degree is life in the monitoring zones more or less costly?

(E5) I.19 — Lack of identity of the traditional activities within the UNESCO area

indicator components

(E5) I.19.1	Employees' number of traditional activities (historical shops, handicraft shops, etc.) / total number of employees within the UNESCO area

QUESTION FOCUS

What's the impact of tourism on the commercial activities within the UNESCO area?

(E0) 0.20 — Characterization areas / sites of tourist value and tourism profiles

indicator components

(E0) 0.20.1 — Delimitation and basic characteristics of sites subject to saturation : sites / spaces / heritage areas

QUESTION FOCUS

Which heritage sites are likely to suffer from tourist saturation?

(E0) 0.20.2 — Characterisation and types of routes - Tourist shops

QUESTION FOCUS

Which itineraries are most frequently offered to tourists?

(E0) 0.20.3 — Characterization of tourist profile visiting heritage areas/sites

QUESTION FOCUS

How is it and the tourist who visits the heritage sites, how does he get there?

(E0) 0.20.4 — Characterization of tourist profile visiting heritage areas/sites

QUESTION FOCUS

What is the proportion of tourist packages sold in advance? (predictable)

indicator components

(E0) 0.20.5 Historical data tourism heritage areas

QUESTION FOCUS

How much tourism have the heritage sites had?

(E0) 0.20.6 Economic data tourism

QUESTION FOCUS

How much does the tourism that visits the historical and heritage areas contribute economically?

(E0) 0.21 Access capacity charge (heritage area from port)

indicator components

(E0) 0.21.1	maximum number of passengers disembarkation day / hour

QUESTION FOCUS

What is the maximum volume of tourists arriving per day on cruise ships?

(E0) 0.21.2	Historical disembarkation of passengers

QUESTION FOCUS

How has the volume of tourists arriving through cruises changed over time?

(E0) 0.21.3	Disembarkation forecast nº of passengers / itineraries x day / hour

QUESTION FOCUS

What volume of cruise tourists can be expected?

(E0) 0.22   Capacity charge heritage area

indicator components

(E0) 0.22.1   Capacity of saturation sites

QUESTION FOCUS

What is the permitted capacity of historic centres, heritage areas and cultural heritage buildings?

(E0) 0.22.2   Accommodation by Type

QUESTION FOCUS

What volume of accommodation is there, and of what type, in the historical and heritage areas?

(E0) 0.22.2   Public transport by type

QUESTION FOCUS

What type of public transport is there to access historic and heritage areas?

(E0) 0.22.2   Tourist services by type in heritage areas

QUESTION FOCUS

What is there of companies dedicated to tourism management, and official tourist information services?

indicator components

(E0) 0.22.2   Restoration by type in heritage areas

QUESTION FOCUS

What is the volume of catering offer?

(E0) 0.22.2   Parking spaces in heritage areas

QUESTION FOCUS

How many parking spaces are there?

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