S.LI.DES
Smart strategies for sustainable tourism in LIvely cultural DEStinations

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Italy - Croatia CBC Programme
Priority Axis: Environment and cultural heritage
Specific objective: 3.1 - Make natural and cultural heritage a leverage for sustainable
and more balanced territorial development

D.4.1.1. Destination dashboard prototype
The document describing implementation of the activity 4.1
Destination dashboard prototype and its deliverable D.4.1.1

Work Package:	4 – Pilot actions
Activity:	1 – Destination dashboard prototype
Responsible Partner:	Dubrovnik Development Agency DURA
Partners involved:	LP – University of Cà Foscari (IT)
	PP1 – CISET (IT)
	PP2 – Ecipa (IT)
	PP3 – SIPRO Ferrara (IT)
	PP4 – City of Bari (IT)
	PP5 – City of Venice (IT)
	PP6 – CAST-University of Bologna (IT)
	PP7 – Institut za Turizam (HR)
	PP8 – Craft College- Institution for adult education Subsidiary Rijeka (HR)
	PP9 – Dubrovnik Development Agency – DURA (HR)
	PP10 – Sibenik Tourist board (HR)

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Introduction

This document contains the description and explanation of the deliverable D.4.1.1. Destination dashboard prototype: the creation, testing and the final release of the destination dashboard prototype and the user manual, the first out of two deliverables of the activity 4.1.

The design of the destination dashboard developed in WP3 is now translated into a prototype: each project city shall use it as the basis of the pilot actions planning. Starting from the Destination dashboard format designed in WP3, a prototype is created in a form of a web application that automatically extracts data, calculates KPIs and develops tabular and visual reports. The goal is to test the prototype by each project destination to assess its reliability and effectiveness to represent the competitive and sustainable profile of each city and to support time comparisons and benchmarking, according defined thresholds.

The aim of the Destination dashboard, along with the results of the WP3, is to provide local administration with the baseline to develop appropriate pilot actions and, in particular, initiatives to promote and valorise, from a tourism perspective, the rich heritage of typical productions created by local know-how and skills. This will foster the diversification of the local economy, reduce human pressure on popular attractions and distribute visitors' flows over time and space.

When the Destination dashboard prototype creation was finalised and the user manual released, a training session was held on a project level to present the platform to all the project partners and to give the instructions to project destinations on how to use it.

Activity 4.1: Destination dashboard prototype

This activity aims at developing the prototype of the SLIDES Destination dashboard. The prototype is developed as the first version of a user-friendly web application (platform) that offers various possibilities to its users – project cities. The platform allows to extract all the data that was previously imported in a datahub system. Every destination has its own dashboard, customized and related to its own data, relevant specifically for that particular project city. The 1st prototype of the Dashboard contains only the data imported previously and depends on the quantity and quality of available data per each destination, gathered within WP 3.1.

Having the data that provide the information useful to enhance the knowledge about the city state of the art and performances is crucial for decision-making, especially in uncertain periods. The S.LI.DES. Destination Dashboard as a one-stop-shop for data and information about the city with a focus on tourism, urban mobility, cultural identity and crafts, displays the city trends and performances related to different key areas of analysis: economy, society, tourism, culture, environment, accessibility and mobility, popularity and attractiveness.

D.4.1.1. Destination dashboard prototype: creation and testing

The first deliverable of the activity A.4.1 is the **creation and testing of the Destination dashboard prototype**. The prototype provides customised platform for each project destination which is divided in 6 sections:
- City at Glance
- Tourism
- Culture and Crafts
- Environment
- Accessibility & Mobility
- City popularity and attractiveness

Each section provides statistics and insights on a set of key indicators, using tabular and visual reports (tables, meters, graphics, dynamic maps). Data availability shapes the contents, not all sections provide the same information for all cities

The section *City at Glance* gives some key insights on the demographic evolution and "vibrancy" of the city population and its multiculturality. It provides a focus on the state of the local economy and of the business environment, and on the contribution tourism and craft activities give to them. The relationships between the evolution of population and of tourism flows are shown, to understand the trends in tourism pressure, as well as those between tourism flows and accommodation supply, to check the effectiveness of the investments made in the city, and between tourism flows and the evolution of the tourism business environment, in terms of enterprises and employment. *City at a Glance* section gives key insights on:
- evolution and "vibrancy" of the population age class, multiculturality),
- state of the art of local economy and business environment,
- contribution of tourism and craft activities to the city's economy (where available),
- correlation s between: evolution of population and of tourism, tourism flows and accommodation supply and
- tourism flows and tourism business environment, in terms of enterprises and employment.

The *Tourism* section shows the data on the tourism profile of the city: market composition, seasonality, tourist pressure and accommodation supply. It provides an overview of the city's capacity to attract tourism and of the city's structure and evolution of the tourism market and the accommodation supply, based on public statistics. The subcategories in this section are following:
- trends in arrivals and overnights stays,
- level of internationalization of the market,
- level of dependency from a small set of origin countries and, for domestic tourism, from a small set of regions,
- seasonality of international and domestic tourism flows,
- daily tourist pressure generated by overnight tourists,
- trends in cruise tourism (where appropriate),
- trends in official hotel and non-hotel supply, in terms of establishments and bed places and
- correlations between tourism flows and cruise/air accessibility.

The section of **Culture and Crafts** presents cultural environment of the city and the role of craft activities. This section provides information about:
- the cultural environment of the city (where available number of people employed in art, culture and entertainment, number of museum visitors, number of audiences at theatres, etc.),
- the typology, role and features of craftsmen as identified by S.LI.DES., focusing on their tourism potential, and
- a dynamic map showing the territorial distribution of craft activities and other attractions.

The **Environment** section explains the impact of tourism to nature and environment in the city. It provides a set of indicators displaying the extension of green areas and the impacts of tourism on waste production and consumption of local resources.

The following section provides data on the state and dynamics of local **accessibility and mobility** and pedestrian mobility patterns within the city. It provides two kinds of information:
- information regarding the state of national/international accessibility and local mobility by mode of transport, and
- the pedestrian mobility patterns characterizing the city (mobility model maps) and the live monitoring of pedestrian flows in specific areas and time periods, through a set of sensors/devices.

The final category explains the **popularity of the city** brand and the **city attractiveness** according to visitors' opinion. What makes a destination attractive is not only the history and art, the architecture, the people and the lifestyle, the food etc., but also events or a film set and as well what people say about the city. Marketing and promotion make an impact on city popularity and attractiveness, as well as people's word of mouth on social media and as well the stereotypes. In that manner, this section gives information on:
- the evolution of the interest for the city in general and related to tourism, through data provided by Google Trends (analysis of city searches),
- the attractiveness of the city according to the visitors' perspective, e.g., what they declare worth visiting and suggest other peers to visit, in the reviews posted on TripAdvisor,
- a comparison between city "lookers" and "bookers" is also provided, to assess the capacity of the city to convert online visitors into real tourists.

How does it work?

As a "business intelligent system", the Destination dashboard extracts data from the **S.LI.DES. Datahub** - the city repository that stores a large amount of data retrieved from internal and external sources (public/private, offline/online, static/dynamic, primary/collected through surveys), the analysis of the mobility patterns (pedestrian models) and the mapping of craft activities. The dashboard processes and transforms the data into systematic information. It identifies performances and meaningful relationships among data (KPIs and correlations). Also, it displays the outputs using tabular and visual reports (including graphics and dynamic maps).
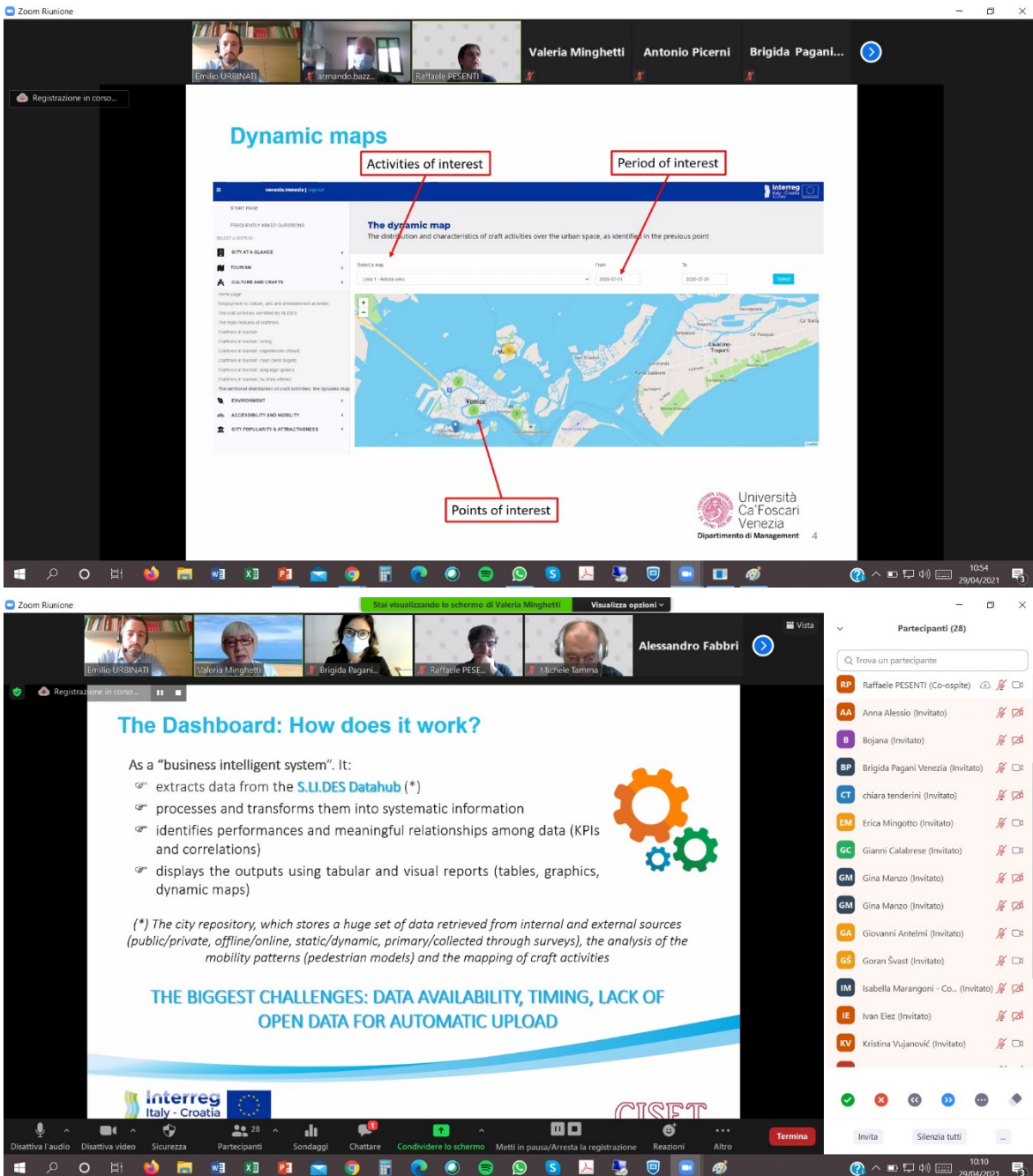
Currently, the biggest challenges that require further work and improvements are the data availability, the timing and the lack of open data for automatic upload.

Dashboard training

On April 19th in 2021, a training session was organised by the Ca' Foscari University of Venice, University of Bologna and CISET, for project partners in order to present the Destination dashboard prototype and to give instructions for its usage.

The training included general presentation of the system explaining its main features and purposes (by CISET). The University of Bologna shared a link to the platform with partners and provided personalised codes for login to each project city. Real time data were explained on the example of the City of Ferrara, as well as the Dynamic model (flow maps, heat maps). The Dynamic maps were explained by the Ca' Foscari University of Venice. After the training, partners are asked to test the platform and report any of the potential bugs they find along the way.

Screenshots (Dashboard training)