



UNIVERSITÀ DEGLI STUDI DI MILANO
Dipartimento di Ingegneria Agraria



Co-funded by the COSME programme
of the European Union



O GIS turístico UNESCO e as Ecopistas: Melhor informação para atrair mais visitantes

Giulio Senes

Activities

1. **Detailed mapping** of all the information related to UNESCO and heritage sites and the connected greenways
2. Creation of a touristic **Geographical Information System (GIS)** containing all the data collected and mapped.
3. Development of a multiplatform **Web-GIS based application** to share “via-Web” the data of the GIS
4. Development of the "Heritage Greenways" brand in order to promote this new transnational thematic tourism product
5. Raise "Heritage Greenways" brand awareness
6. Produce a **360 VR tour** with 360 movies, 360 tours and 3D imaging in the green outdoor area of Mechelen
7. Better know **Best practices** regarding the use of CCI at cultural sites and on greenways



Activity 1: detailed mapping

This activity consists of **gathering and mapping** (at 1:10.000/1:25.000 scale) all the **information** related to the territories characterized by:

- the presence of a **UNESCO site**
- and the presence of a **greenway**.

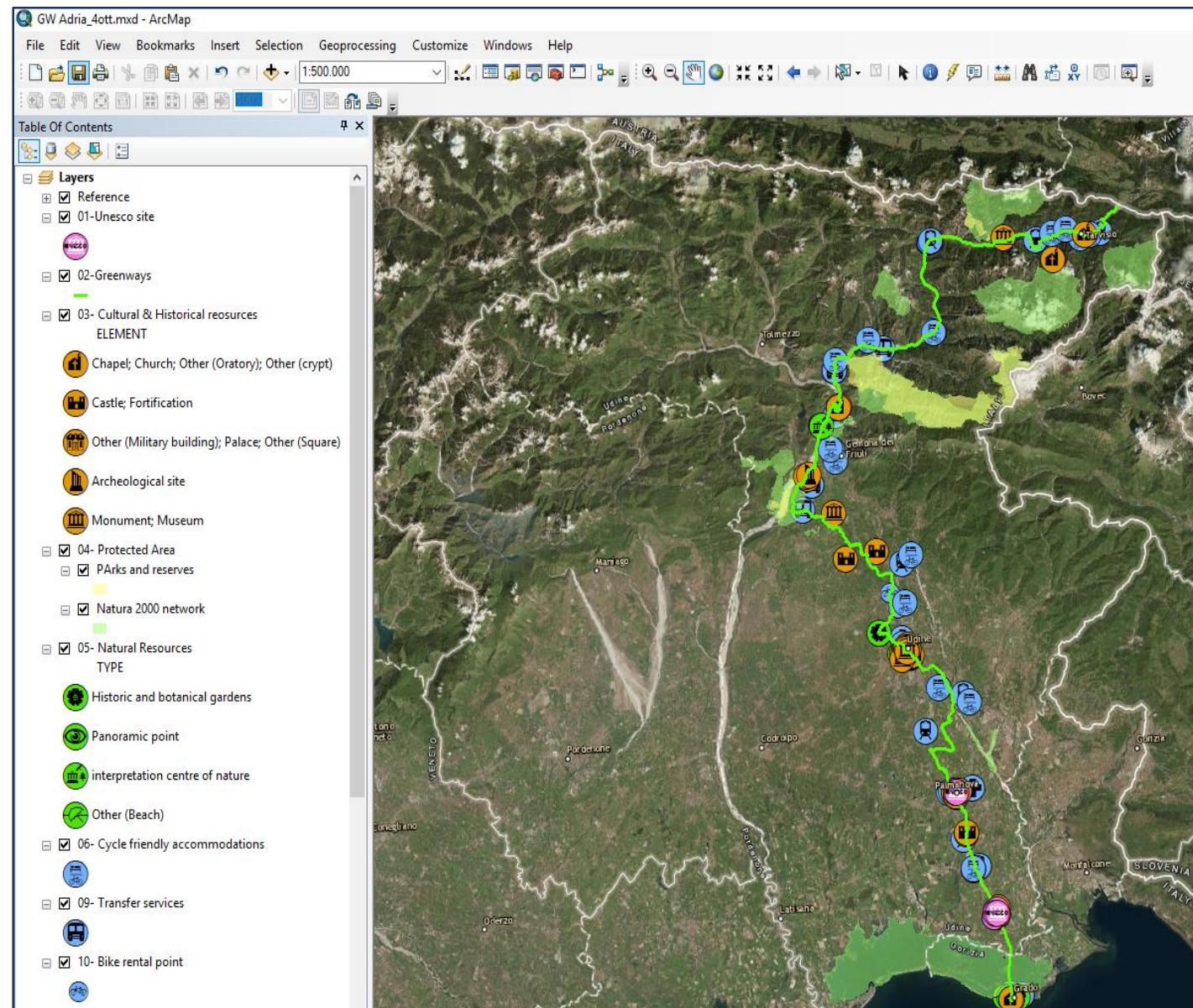
The information to gather are related to:

- natural, cultural and historical resources,
- touristic attractions,
- accessibility,
- Services.



Activity 2: Greenways Heritage Touristic GIS

The information collected and mapped in activity 1 will be organized in a GIS database, that will contain data related to **attractions, sites, destinations and tourism related services**.



Activity 2: Greenways Heritage Touristic GIS

Information collected

- a) The information collected have been organized in **14 entities or layers**.
- b) The data for each layer have been collected from *official sources*, when possible (e.g: UNESCO organization, national and regional touristic agencies, etc.).
- c) Different **buffer zones** have been defined, in order to identify the resources and touristic services to be mapped (on the base of *the literature related to pedestrian and cycle touristic activities*).



Activity 2: Greenways Heritage Touristic GIS

Layers, criteria and sources of the information				
Layer ID	Layer	Geometry type	Source	Criteria for selection
01	UNESCO sites [UNESCO]	Point	UNESCO web site	Max 10 km from a greenway
02	Greenways [GW]	Polyline	Partner knowledge	Max 10 km from a UNESCO sites
03	Cultural-Historical resources [CHR]	Point	Official touristic Information	Max 2,5 km from a greenway
04	Protected Areas [PA]	Polygon	Official list of national protected area	Max 2,5 km from a greenway
05	Natural Resources (NR)	Point	Official touristic Information	Max 2,5 km from a greenway
06	Cycle friendly accommodations (CA)	Point	Official cycle friendly certification; ex. Bed and Bike (DE)	Max 5 km from a greenway
07	Generic Accommodations (GA)	Point	National/regional touristic databases	Max 2,5 km from a greenway
08	Food & Beverage (bar, restaurant, etc.) [F&B]	Point	Partner knowledge	Max 1 km from a greenway
09	Transfer Services [TS]	Point	Partner knowledge	Max 2,5 km from a greenway
10	Bike Rental points [BR]	Point	Official touristic Information; partner knowledge	Max 2,5 km from a greenway
11	Rail Stations [RS]	Point	Railway company	Max 2,5 km from a greenway
12	Public Navigation Services [PNS]	Point	Navigation Company	Max 2,5 km from a greenway
13	Emergencies [EM]	Point	Official Information	Max 2,5 km from a greenway
14	Touristic Information points [TI]	Point	Official touristic Information	Max 1 km from a greenway



Activity 2: Greenways Heritage Touristic GIS

01 - UNESCO sites		04 - Protected areas		06 - Cycle friendly accommodations	
02 - Greenways		05 - Natural Resources:		07 - Generic Accommodations	
03 - Cultural & Historical resources:		<i>Historic and botanical gardens</i>		08 - Food & Beverage	
<i>Religious buildings (chapels, churches, monasteries, etc.)</i>		<i>Panoramic points</i>		09 - Transfer services	
<i>Castles, towers and fortifications</i>		<i>Interpretation centers of nature</i>		10 - Bike rental points	
<i>Archeological sites and ruins</i>		<i>Other natural resources</i>		11 - Rail stations	
<i>Museums and monuments</i>				12 - Public Navigation Services	
<i>Palaces, villas and other civil buildings</i>				13 - Emergencies	
				14 - Touristic Information points	

Activity 2: Greenways Heritage Touristic GIS

Resources and services mapped

- ✓ **11** UNESCO sites
- ✓ **5** greenways connected to the UNESCO sites (373 km):
 - *Alpe Adria (Italy): 183 Km;*
 - *Sierra de la Demanda (Spain): 54 Km;*
 - *Beghina (Belgium): 40 Km;*
 - *Rīga - Ērgļi (Latvia): 79 Km;*
 - *Ecopista de Guimarães (Portugal): 17 Km.*
- ✓ **104** cultural-historical resources;
- ✓ **40** natural resources;
- ✓ **24** cycle friendly accommodations and + **100** generic accommodations;
- ✓ + **500** Food & Beverage;
- ✓ **6** bike rental points and **13** transfer services;
- ✓ **12** rail stations and **1** public navigation services;
- ✓ **4** emergencies;
- ✓ **12** touristic information points.



Activity 2: Greenways Heritage Touristic GIS

UNESCO site "Palmanova the Fortress City" (Italy)

Opere di difesa veneziane tra XVI e XVII secolo: Stato da Terra-Stato da Mar o... x

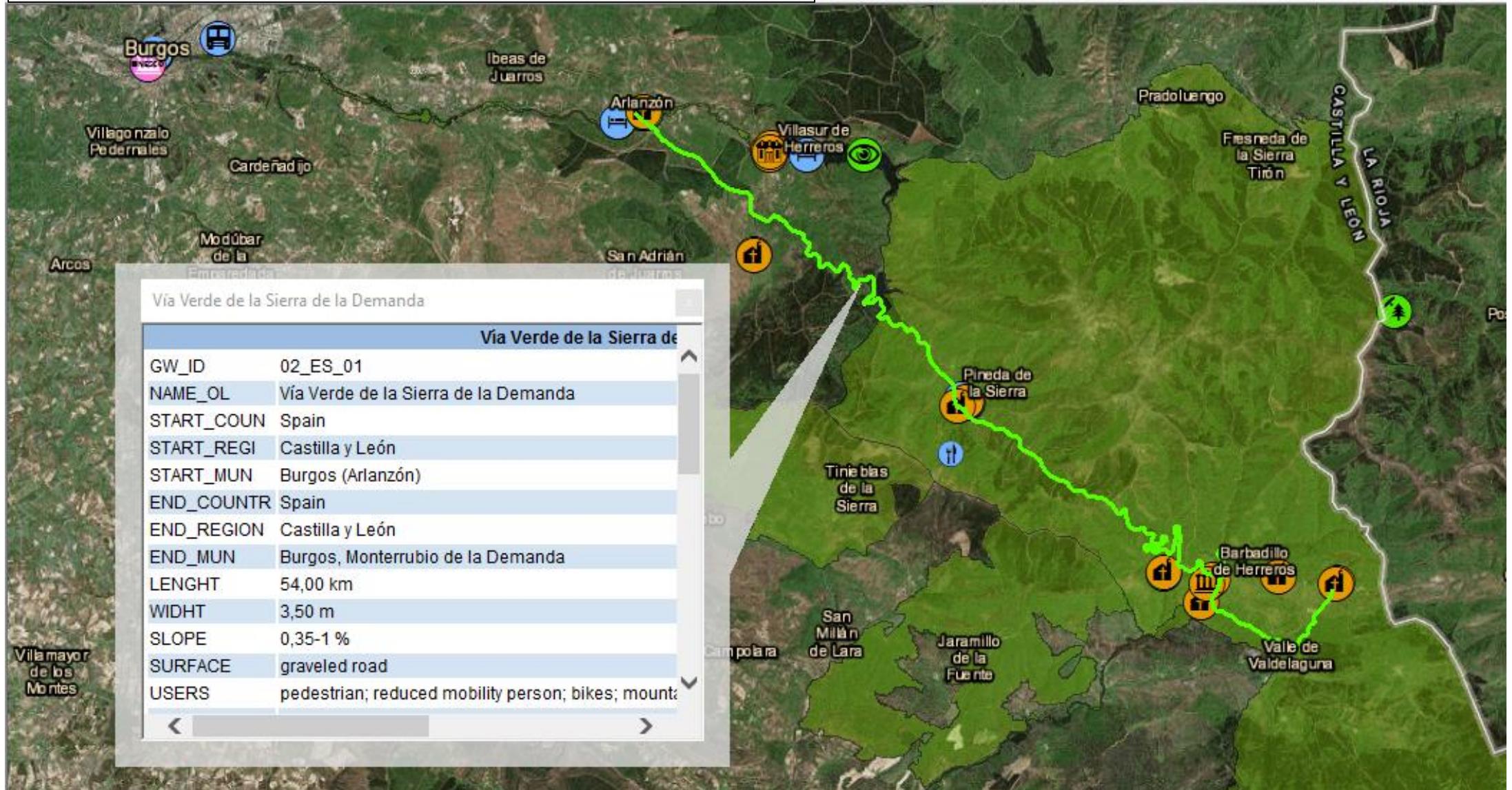
Opere di difesa veneziane tra XVI e XVII secolo: Stato da Terra-Stato da Mar occidentale: la città-fortezza di Palmanova

UNESCO_ID 01_IT_07

NAME_OL	Opere di difesa veneziane tra XVI e XVII secolo: Stato da Terra-Stato da Mar occidentale: la città-fortezza di Palmanova
NAME_EL	Venetian Works of Defence between the 16th and 17th Centuries: Stato da Terra – Western Stato da Mar: City Fortress of Palmanova
COUNTRY	Italy
REGION	Friuli Venezia Giulia
ADDRESS	
MUNICIPALI	Palmanova
POST_CODE	33057
WEB	whc.unesco.org/en/list/1533
DESCRIPTION	Palmanova represents the strategic centre for neutralising Ottoman attacks from the East and attacks from Austria. From a typological point of view, it is the only new town; an urban nucleus recognised globally, the "ideal fortified city" of Palmanova
PHOTO_1	01_IT_07_01

Activity 2: Greenways Heritage Touristic GIS

Greenway "Via Verde de la Sierra de la Demanda" (Spain)



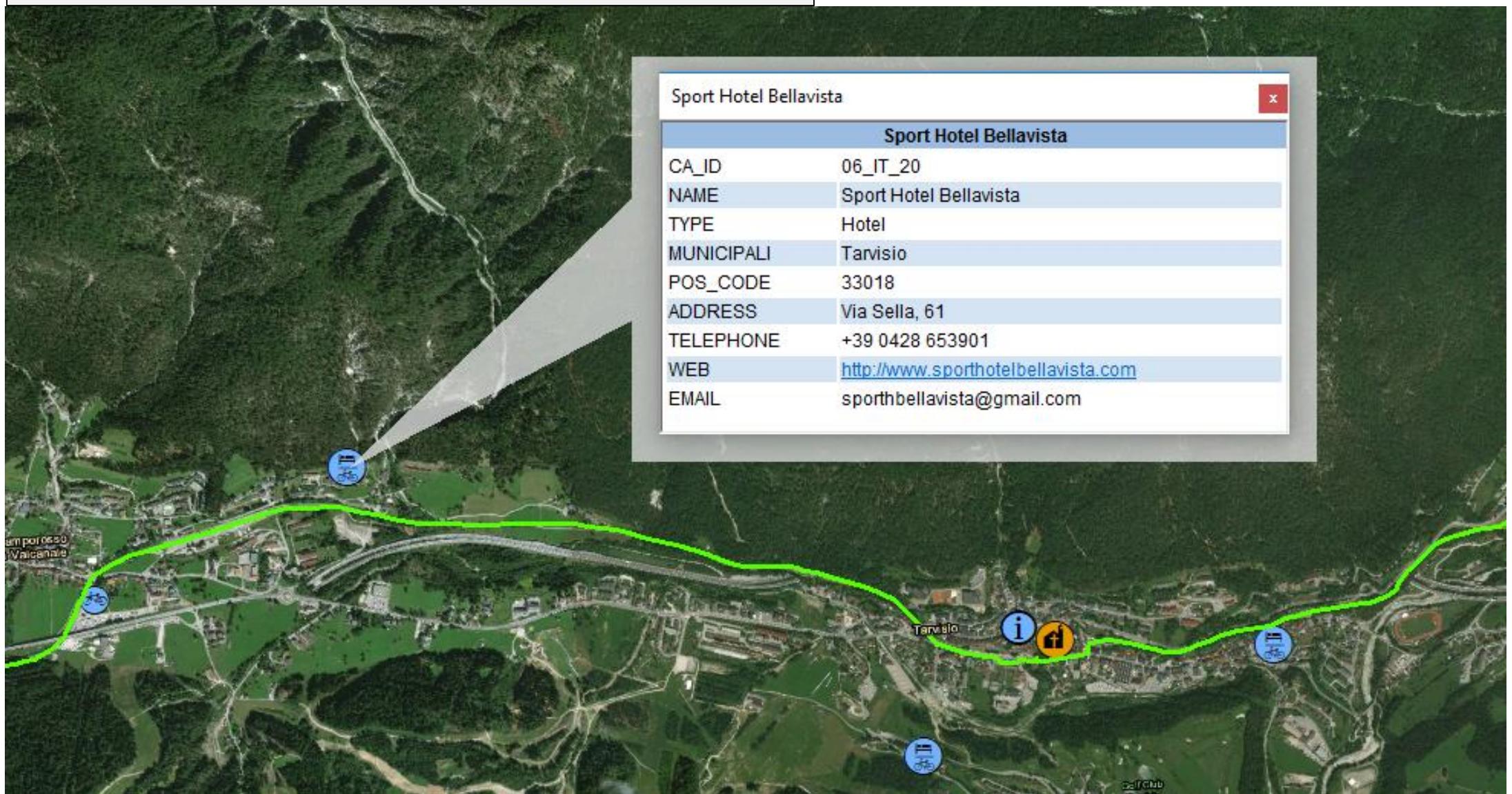
Activity 2: Greenways Heritage Touristic GIS

Cultural-historical resource (Spain)



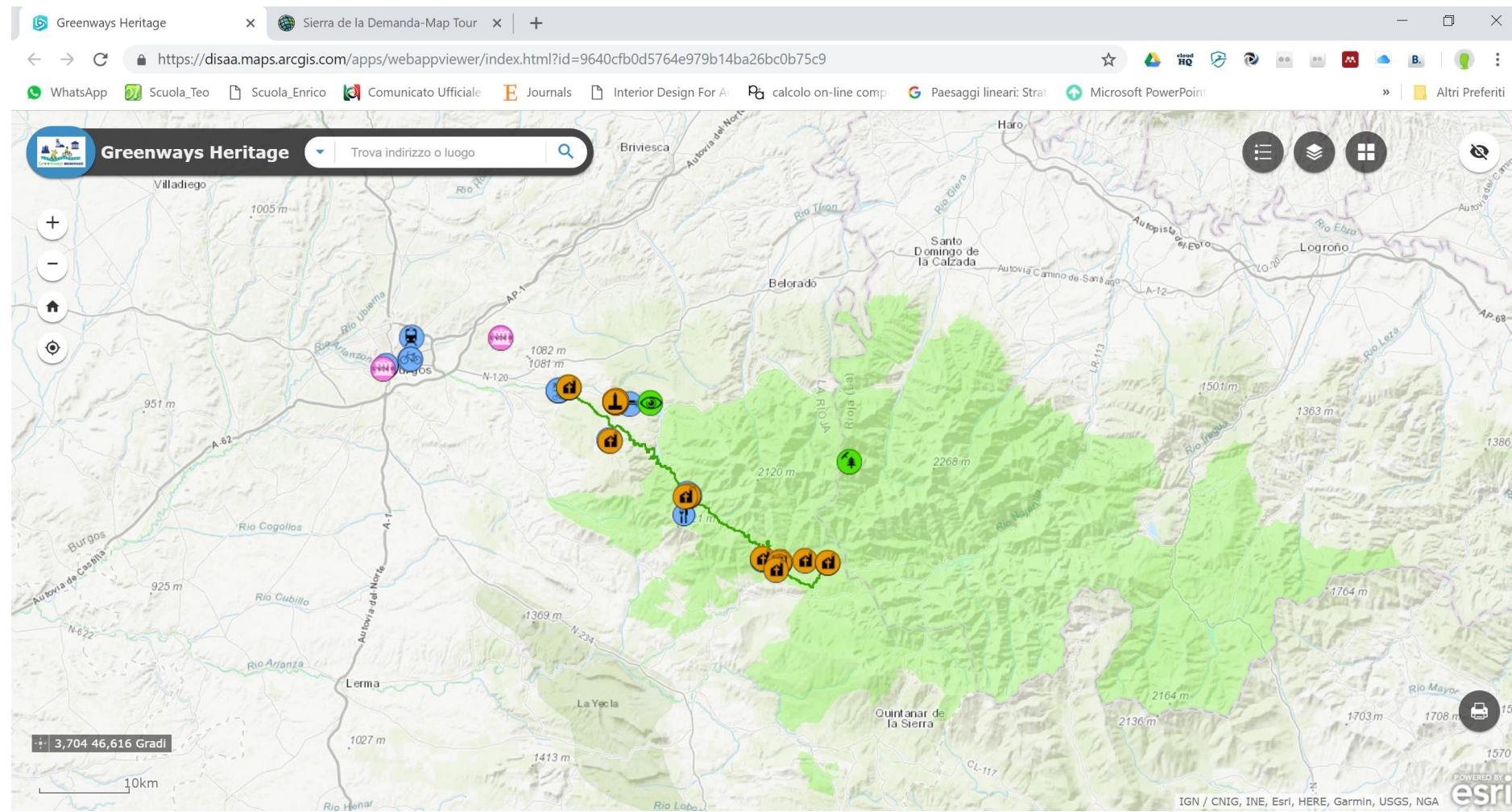
Activity 2: Greenways Heritage Touristic GIS

Cycle friendly accommodation (Italy)



Activity 3: Web-GIS based Multiplatform application

The GIS will be shared to tourists and stakeholders through the development of a Web-GIS based application that will run on any device and OS using the ESRI GIS technologies.



Activity 3: Web-GIS based Multiplatform application

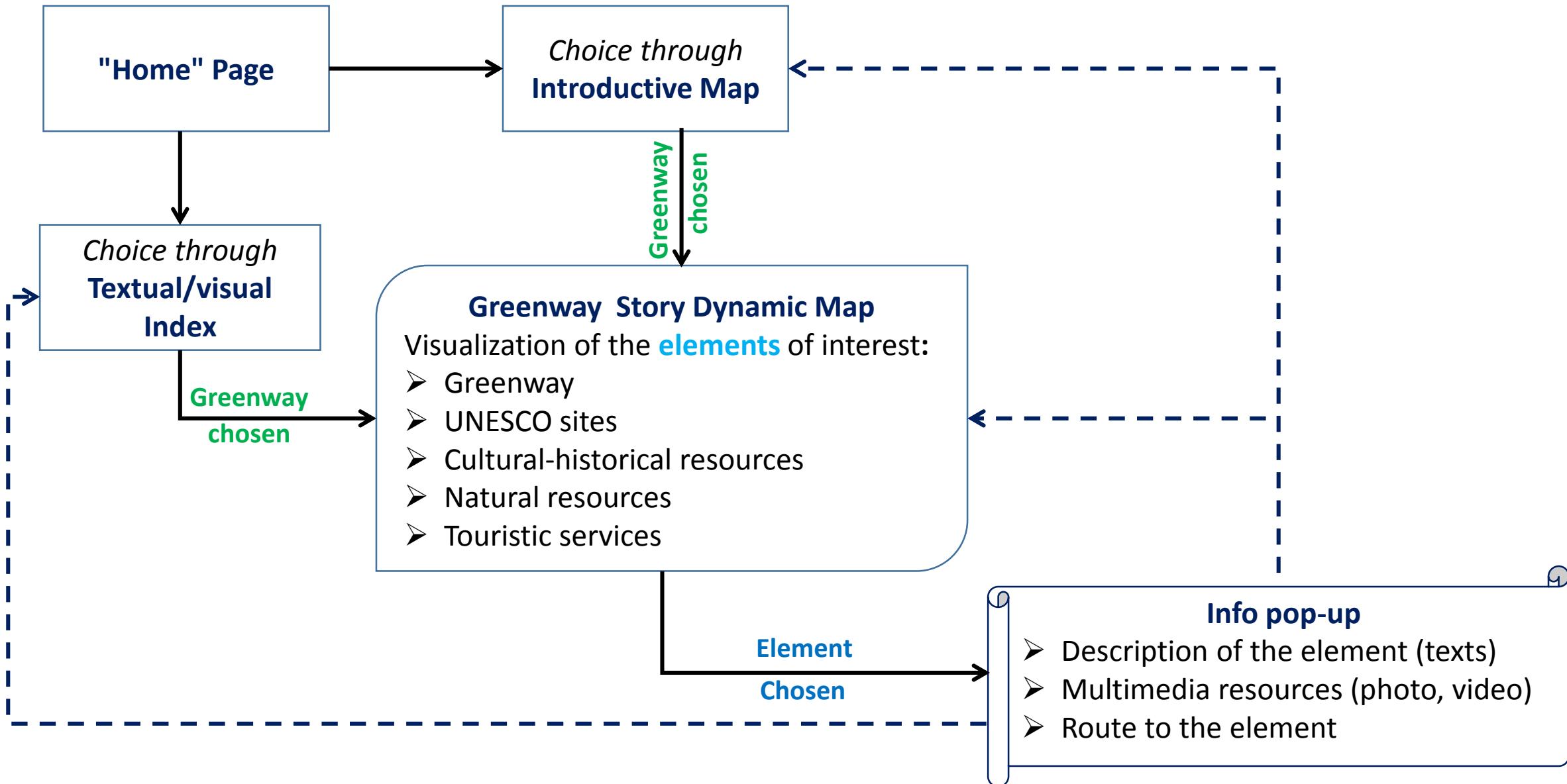
Web App: use HTML, JavaScript, and CSS hosted on a web server and delivered to the user's device or desktop using its **web browser**.

Native App: software program that is developed for use on a **particular device**. it has the ability to use device-specific hardware and software, so it can provide optimized performance and take advantage of the latest technology, such as a GPS.

		Contents	
Platform	Element description →	✓ Audio/video ✓ Texts ✓ Images	Interactive Dinamic Maps
		Web App	Web App
Mobile (smartphone, tablet)		Native App & Web App	Native App & Web App



Activity 3: Web-GIS based Multiplatform application





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