



REPORTS ON STUDY VISITS IN SEMESTER II:  
STUDY VISIT IN BOLOGNA (ITALY)

WPT2 – Establishing the ADRISEISMIC methodology  
for the reduction of seismic vulnerability

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INTERREG V B – Adriatic Ionian  
ADRION PROGRAMME – SECOND CALL FOR PROPOSALS

PRIORITY AXIS 2 – Sustainable Region

Project duration: from 01/03/2020 to 31/08/2022

LEADER

ALMA MATER STUDIORUM – University of Bologna – Department of Architecture (IT)

PARTNERS

Institute for Vocational Training of Construction Workers in the province of Bologna – I.I.P.L.E. (IT)

City of Kaštela (HR)

Municipality of Gjirokaster (AL)

Regional development agency Backa (RS)

Slovenian national building and civil engineering institute (SI)

University of Crete (GR)

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## Document Information

Project Acronym	<b>ADRISEISMIC</b>
Full title	<b>New approaches for seismic improvement and renovation of Adriatic and Ionian historic urban centres</b>
Project URL	<a href="https://adriseismic.adrioninterreg.eu/">https://adriseismic.adrioninterreg.eu/</a>

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Deliverable number: T.2.2.5	Title	<b>Reports on Study Visits in semester III</b>
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Authors	<b>Giorgia Predari, Lorenzo Stefanini, Giulia Marzani, Angela Rosa, Angela Santangelo – UNIBO</b>
Other contributors	

Description of the deliverable (3-5 lines)	<b>The deliverable details the activities carried out on September 8, 2021, on the occasion of the Italian Study Visit</b>
Key words	<b>Study visit, Bologna, historic centres, built heritage</b>

## Document history

NAME	DATE	VERSION	DESCRIPTION
1st draft	20/09/2021	0.2	First draft
Final version	29/10/2021	1.0	Final version delivered

## Definitions & Acronyms

Acronym	Full name
CA	Consortium Agreement
PP	Project Partner
LP	Lead Partner
WPT	Technical Work Package

## 1 Introduction

The Adriseismic Project aims to reduce the seismic risk of the countries involved through the systematization of practices and local knowledge. The activities are aimed at improving the processes of intervention before and after the earthquake with particular attention to the areas of historic centres, understood as the true identity core of the cities. The partnership involves various organizations and associations from six different countries (Italy, Croatia, Serbia, Slovenia, Albania and Greece).

Within WPT2, ADRISEISMIC foresees 6 Study visits, developed at project level. The aim of the Study Visits is twofold: on the one hand they will allow to organize in situ observations with other Project Partners, Associated Partners and other relevant stakeholders to show the characteristics of cultural heritage-built environment and methods in use for seismic vulnerability retrofitting. On the other hand, Italy, Kastela and Greece will organise their Study Visits to share their work on the pilot activities, thus showing how the methods for seismic vulnerability retrofitting and assessment are put in place. Each country, alternatively, hosts the partners of the other nations, thus having the opportunity to illustrate the typical practices of the place, enriching the discussion and the shared technical knowledge.

Unfortunately, due to the continuation of the recent health emergency related to Covid-19, the group decided to organise three study visits remotely but trying to keep in presence the three in those Countries where pilot cases are located.

In this regards, Serbia, Slovenia and Albania organised their study visits online while Italy, Croatia and Greece will organise them in presence if pandemic situation allows PPs to travel and meet.

This report describes the main takeaways of the ADRISEISMIC's Study Visit organized in blended mode (both in presence and online) by the University of Bologna (LP) on September 8<sup>th</sup> 2021.

After an initial in-depth explanation of the methodology adopted to carry out the study visit, the following chapters will describe in detail the activities that were done.

## 2 Blended mode study visits methodology

In order to ensure the best possible implementation of the project, despite the emergency situation linked to the COVID-19 emergency, it was decided to try to organise the study visits on which the Pilot Cases are located in a blended mode (in-person and online). It was decided to keep the online modality due to the difficulties caused by different health regulations in the different partner countries.

The general objectives remain the same as for the previous study visits, the host partner should select and consider some significant buildings and the context in which they are located, in order to make the visiting partners able to understand the construction methods used in the country and the intervention technique currently applied by technicians and designers.

These features will be shown to the visiting partners both remotely and in presence through **videos**, **presentations** or **on-site visits**. The dual mode of participation should ensure that all visiting partners have the opportunity to get to know and fully understand the construction and historical characteristics of the host location. As far as local experts are concerned, they can be selected from universities, research centres or professionals working in the construction sector, but generally people who can contribute from a technical point of view in explaining construction methods and retrofitting techniques can be interviewed.

During the presentations, all visiting partners can ask their questions and requests for clarification to the host partner whether they are physically present or online.

### 3 Event Description

As already mentioned, the event was organised by the University of Bologna (UNIBO). **The study visit was held in blended mode on 8th September 2021** and focused on construction and intervention techniques used in the local area. In addition, the guests were shown the work conducted on the **Pilot Case of Piazza Puntoni**.

The event was divided in two parts: the first one, dedicated to the presentations, took place in the morning at the Accademia delle Scienze; the second one was dedicated to the visit of the pilot case in the afternoon.

The first lecturer, prof. Francesco Ceccarelli, introduced the city of Bologna to the guests. The presentation focused on the university and its buildings; the relationship between the historical centre and the university over the centuries was illustrated, highlighting the close correlation. The last part was dedicated to the Palazzo Poggi, the seat of the university and, on this occasion, of the conference.

The second presentation, illustrated by Prof. Angela Santangelo, dealt with the issue of seismic vulnerability from the point of view of urban planning. The sub-systems into which each city is divided (physical, functional and social system) were described and from which to create homogeneous areas. The creation of such areas can be fundamental in defining prevention strategies on an urban scale, and the experience of the Emilia Romagna region is described.

The third presentation, by Eng. Marco Pasquini, went into more detail about the restoration and preservation techniques used in Italy on existing buildings. Practical examples and the application of the described techniques to real cases were shown.

Prof. Giorgia Predari, during the fourth presentation, described the most common types of buildings in the city of Bologna, addressing the evolution of construction techniques from the Middle Ages to the present day. The first settlements and their development (and aggregation) over the years were described, and information was provided on the different types of buildings present locally, making distinctions between palaces, residential buildings and convents.

The last presentation, illustrated by Prof. Giorgia Predari and Eng. Lorenzo Stefanini, concerned the case study chosen in the Adriseismic project: Piazza Puntoni. For each of the six buildings chosen as the object of analysis, a general historical framework was provided, as well as data found during the investigations carried out, an analysis of the construction techniques used in their construction and a rapid assessment of the main vulnerabilities.

In the afternoon, before visiting Piazza Puntoni, guests were taken on a tour of the Bologna University Library, located in Palazzo Poggi, where the local history and the events that have characterised the building over the centuries were illustrated.

The last part of the event was dedicated to an inspection of the Pilot case area. On the square, Eng. Davide Prati first described the operation of the laser scanner used in the survey phases, then Prof. Giorgia Predari and Eng. Lorenzo Stefanini described the characteristics of the buildings, highlighting their construction peculiarities.

The event was attended by 35 people from all the partner's countries. Specifically, the presences were distributed as follows:

Institutions	Attendees
Alma Mater Studiorum – University of Bologna – Department of Architecture (UNIBO-DA) - Italy	6
City of Kaštela (Grad Kaštela) - Croatia	2
University of Crete (UoC) - Greece	4
Regional Development Agency Bačka, organiser - Serbia	4
Region of Crete (ROC) - Greece	6
Municipality of Gjirokaster (Gjirokaster) - Albania	2
Slovenian national building and civil engineering institute (ZAG) - Slovenia	5
Institute for Vocational Training of Construction Workers in the province of Bologna (IIPLE) - Italy	2
RIZOMEDIA srl - Italy	1
Provincial Secretariat for Culture, Public Information and Relations with Religious Communities, AP Vojvodina, Serbia	1
Appignano Municipality	1
Bologna Municipality	1
Online Presence	11
In-person	24

**Table 1: Participants**

### 3.1 Useful links

The Study Visit can be consulted in its full form both on the official Adriseismic website and on the dedicated You tube channel:

<https://adriseismic.adrioninterreg.eu/news/italian-study-visit-bologna-september-2021-adriseismic>

<https://www.youtube.com/watch?v=257Ni1yJ0dg&list=PLlf87Jv5jEwCOILDPTfr4tVMYleqjw9sp>

The Report produced by PP1 after the event is attached for convenience at the end of this deliverable. Specific links for each part of the Study Visit will be included in the next chapters of this document.

### 3.2 Agenda of the event

The event took place from 9:45 a.m. to 1 p.m. on 8<sup>th</sup> September 2021 and included the following activities:

#### 8<sup>th</sup> SEPTEMBER 2021 morning 09:45 – 13:00

**Participants:** all Project Partners + Associated Partners

**Location:** [Accademia delle Scienze, via Zamboni 31, Bologna](#)

**Virtual room:** Here the [link](#) to access

<b>09:45 - 10:15</b>	<b>Registration</b>
<b>10:15 – 10:30</b>	Welcome from the Director of the Department of Architecture – Fabrizio Apollonio
<b>10:30 – 10:40</b>	Welcome to the ADRISEISMIC Associated Partners – Simona Tondelli
<b>10:40 – 11:10</b>	Bologna, the city of knowledge. A historical overview of university architecture – Francesco Ceccarelli

<b>11:10 – 11:30</b>	Introduction to seismic vulnerability in urban planning: the case of Emilia-Romagna Region – Angela Santangelo
<b>11:30 – 11:50</b>	Examples on restoration and preservation techniques – Marco Pasquini
<b>11:50 – 12:00</b>	Q&A
<b>12:00 – 12:20</b>	The Bolognese building types, from the Middle Ages to the Twentieth century – Giorgia Predari
<b>12:20 – 12:50</b>	The buildings on Piazza Puntoni: detailed description of the construction solutions – Giorgia Predari, Lorenzo Stefanini
<b>12:50 – 13:00</b>	Q&A
<b>13:00 – 14:30</b>	Lunch break

**8<sup>th</sup> SEPTEMBER 2021 afternoon 14:30 – 16:30**

**Participants:** all Project Partners + Associated Partners

**Location:** Piazza Puntoni. Starting point: [Accademia delle Scienze, via Zamboni 31, Bologna](#)

<b>14:30 – 16:30</b>	<b>On site survey – public square and public buildings: visit to Bologna University Library and quick demonstration of the tools for the façade survey</b>
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**Table 2: Timetable**

### 3.3 Detail of activities

#### 3.3.1 Welcome note

1. The meeting is opened by the greetings and welcome of the director of the Department of Architecture prof. Fabrizio Apollonio.
2. Professor Simona Tondelli from UNIBO (LP), the project coordinator, also welcomes all the partners, both online and in presence. She takes advantage of the time available to introduce the associated partners to the group and explains their functions.



**Figure 1: Pictures from the event**

The video can be viewed in full at the following address:

<https://www.youtube.com/watch?v=NmmMirQVOXY&list=PLlf87Jv5jEwCOILDPTfr4tVMYIeqjw9sp&index=2>

### 3.3.2 Bologna, the city of knowledge. A historical overview of university architecture

Professor Francesco Ceccarelli gave the first presentation of the event. Initially, the history of the University of Bologna was illustrated; its origins, which have their roots in the second century of the year one thousand, and the first buildings used for teaching activities were described. During the exposition, the relationship between the institution and the city was described several times, often proving to be inseparable.

Particular attention was paid to the history of Palazzo Poggi, venue of the University since 1803, during the Napoleonic era, and the place where the study visit (the Academy of Sciences) was held. There was also an in-depth look at the urban plans of the nineteenth and early twentieth centuries that envisaged the development and first expansion of the university.

From an architectural point of view, the history of the Archiginnasio, partially destroyed by bombing and rebuilt, and of the engineering building designed by Vaccaro in 1935, an example of Italian rationalism, were illustrated.

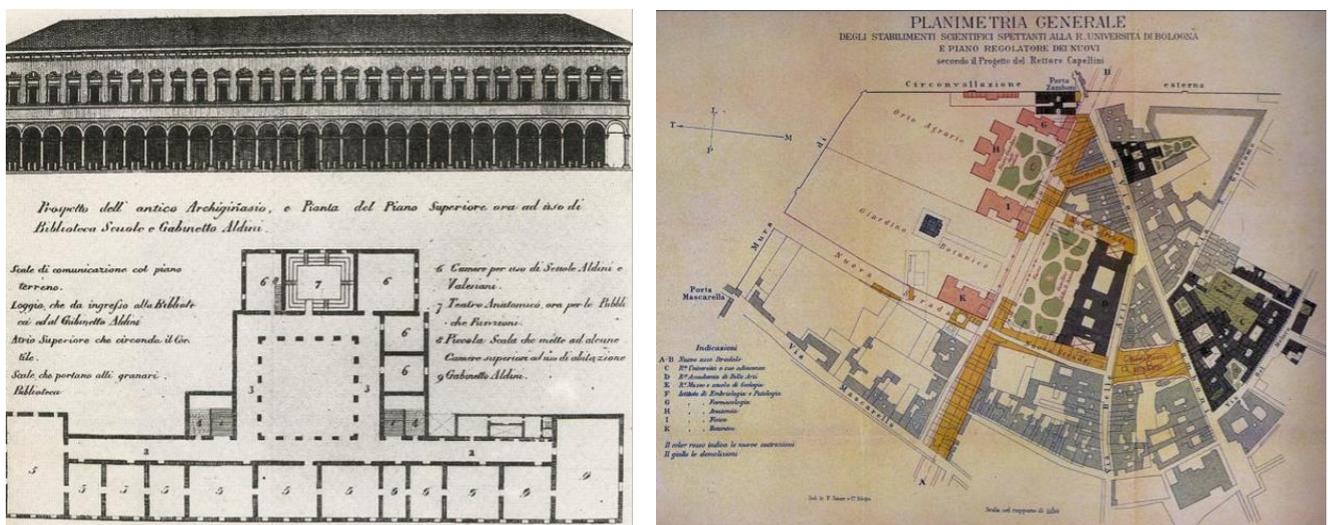


Figure 2: Plan and elevation of the Archiginnasio (left) and general planimetry (right)

The video is available at the following link:

<https://www.youtube.com/watch?v=zdoXPQH3CmM&list=PLIf87Jv5jEwCOILDPTfr4tVMYIeqiw9sp&index=3>

### 3.3.3 Introduction to seismic vulnerability in urban planning: the case of Emilia-Romagna Region

The second presentation was made by Professor Angela Santangelo from UNIBO to broaden the topic of seismic vulnerability at the urban level, taking it to a higher level than the single building.

It starts by describing the fundamental characteristics into which a city is composed: the physical system (It includes what physically makes the city how it looks like), the functional system (It collects all the services and activities that are offered at territorial level according to the land use) and the social system (It describes people who live the urban environment, use the services provided by the city and the relations among people).

Then the importance of creating homogeneous areas of territory is illustrated in order to intervene in the reduction of seismic vulnerability with the urban planning tools and regulations in force. For this, the example of the Emilia Romagna region and what is done at local level is brought.

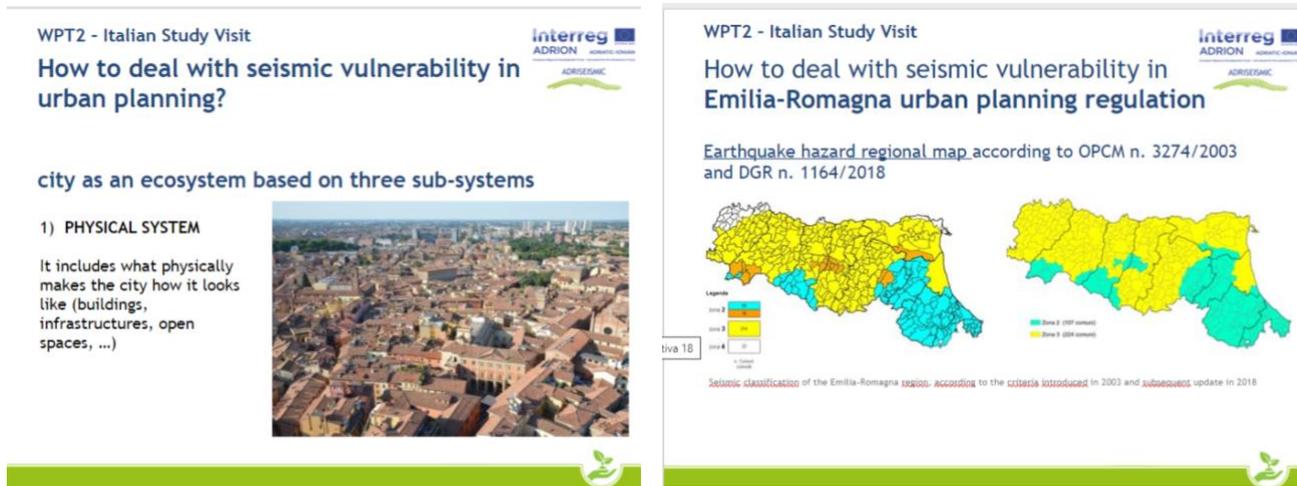


Figure 3: excerpt from the presentation

The video is available at the following link:

<https://www.youtube.com/watch?v=9Tx0Of5g83Y&list=PLlf87Jv5jEwCOILDPTfr4tVMYIeqjw9sp&index=4>

### 3.3.4 Examples on restoration and preservation techniques

Examples of recovery and preservation techniques are given by Engineer Marco Pasquini. During the first part of the presentation, data on the earthquake of 20-28 May 2012, which had its epicentre in the Po valley in the northern part of Italy, is presented. The measured acceleration was between 0.29 and 0.31g; 27 people lost their lives during the event.

The first example of building interventions is the "XII Morelli" cemetery, whose pavilions date back to the second half of the 20th century and are partly built of concrete and partly of masonry. The work designed to repair the damage caused by the earthquake was as simple as possible, trying to respect the existing materials. Specifically, the work involved the roof and some of the main structural elements.

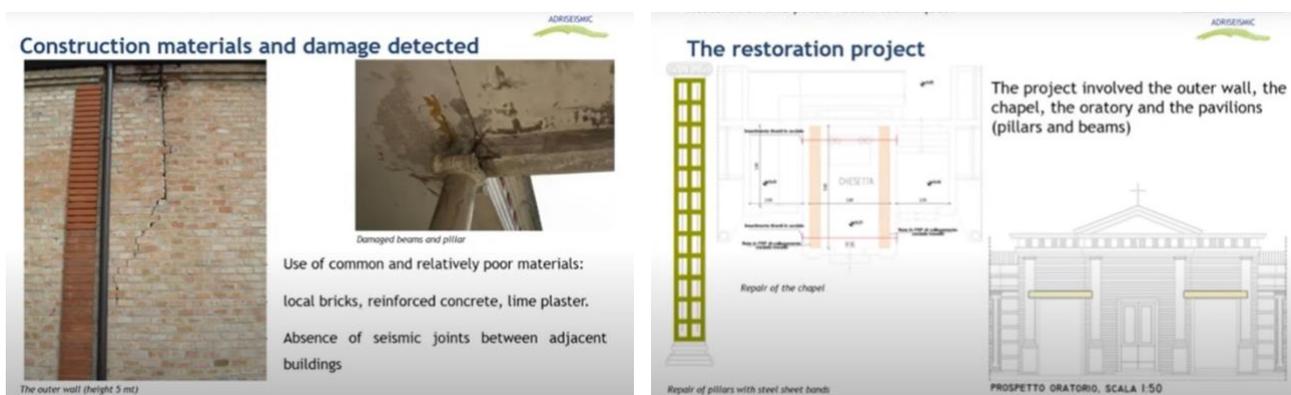


Figure 4: excerpt from the presentation

The second example was the Castle of San Felice sul Panaro, consisting of load-bearing masonry, arches, vaults and wooden floors. The earthquake created a lot of damage: collapse of the internal partitions, lesions on the vaults and on the floors at various levels.

The project covered the entire structure. Where possible, the original material was used for repairs, both for the masonry and for the wooden beams and external plaster. To increase the overall seismic response, some openings made during the 20th century were closed.

The last of the three projects presented concerned the 'Cintura' church. The building, built in 1764, has a baroque style and was only slightly damaged by the 2012 earthquake.

Analyses carried out have identified various materials dating from different periods, as well as elevations and new openings that have reduced the structural safety of the structure.

The intervention focused on the most fragile elements, restoring the connections between the various elements and replacing the most damaged ones.



Figure 5: The church of "Cintura"



Figure 6: Castello of San Felice sul Panaro

The video is available at the following link:

<https://www.youtube.com/watch?v=AaxZo83xaQs&list=PLf87Jv5jEwCOILDPTfr4tVMYleqjw9sp&index=5>

### 3.3.5 The Bolognese building types, from the Middle Ages to the Twentieth century

After the illustration of the main intervention techniques used at local level, the most common building types were presented. Professor Giorgia Predari, from UNIBO, described the architectural characteristics of Bolognese buildings from the Middle Ages to more recent times.

The first structures, intended for residential use, date back to the tenth century. They were typically built on rectangular lots (3.5 x 7 m) with the shorter side on the street and began to be arranged along the radial roads (via Santo Stefano, Strada Maggiore, via Castiglione), which were rented out.

The first formation of the city was much smaller than the present city centre (the centre of Bologna is the part within the city walls). In the high Middle Ages, intense urban planning operations began in this expansion area (Cerchia dei Torresotti - Cerchia dei Viali). The lots kept the same width, but get longer. Terraced building types with porticos were built with the previous scheme. But the lots had a greater depth, and the buildings occupied half or 1/3 of the lot area. The structural type was characterized by shared walls on the border, a timber load-bearing framework braced by inclined struts, infills in re-used bricks or pebbles bound with lime and mud or a plastered timber lattice, a timber staircase and portico. The construction of the porticos in Bologna became mandatory, and was regulated by the municipal statutes, thanks to its usefulness for the climatic conditions and for its use as an extension of the shops on the ground floors of the buildings.

Throughout the centuries, progressively the infills were substituted with brick masonry, first in the longitudinal walls, with thickening in the corners and in the support points of the beams. Wooden pillars were replaced by brick pillars.

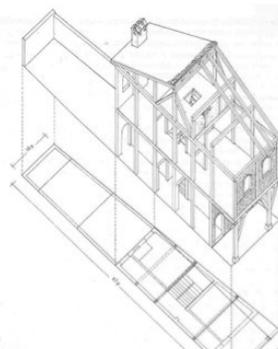
WPT2 - Italian Study Visit. The Bolognese building types.



#### The housing construction of the XI - XIII centuries

From the end of the 1200s, intense urban planning operations began in the expansion area (Cerchia dei Torresotti - Cerchia dei Viali). The lots keep the same width, but get longer.

- serial building type with porticos
- size: 2/3 - 1/2 - 1/3 of the lot area
- Shared walls on the border
- timber load-bearing framework braced by inclined struts
- infills in re-used bricks or pebbles bound with lime and mud or plastered timber lattice



WPT2 - Italian Study Visit. The Bolognese building types.



#### From the early to the high Middle Ages



Evolutio Urbis - Map showing the routes of the walls and canals in their historical development

Figure 7: excerpt of the presentation

The second part of the presentation was devoted to the palaces. In Bologna, palaces refer to three main models: the Bolognese model with gothic influences, almost always with a portico, with brick facades often left exposed or with a particular local finishing technique called "sagramatura". Palazzo Fava is one of the most representative palaces of this type.



**Figure 8: gothic influences and Florentine model**

The Florentine model without portico on the façade is the second type and is quite rare; the portico sometimes is inside, if a cloister is present. The facades reproduce the ashlar decorations. The last one is Roman model without portico with stone decorations, often enriched with beautiful sculptures. Palazzo Davia Bargellini is one of the most representative palaces of this type.

The last part of the presentation was devoted to 20th century residential buildings and the new construction techniques used (concrete floors, mixed and framed structures).



**Figure 9: modern structures**

The video is available at the following link:

<https://www.youtube.com/watch?v=SZWAwcDmfp8&list=PLlf87Jv5jEwCOILDPTfr4tVMYleqjw9sp&index=6>

### 3.3.6 The buildings on Piazza Puntoni: detailed description of the construction solutions

The last presentation of the morning concerned the pilot case in Piazza Puntoni. Giorgia Predari and Lorenzo Stefanini presented in this time slot the characteristics of the studied buildings and all the investigations carried out within the Adriseismic project.

The buildings were divided into two categories: belonging to the University of Bologna and not belonging. The **first section** includes the University Library, Department of economics, University Student House and canteen. The **second**: National Gallery and Fine Arts Academy, Modern commercial and residential building and Ancient residential buildings.

WPT2 - Italian Study Visit. The buildings on Piazza Puntoni.



#### Piazza Puntoni in Bologna



##### UNIBO BUILDINGS

- University Library
- Department of economics
- University Student House and canteen

##### OTHER BUILDINGS

- National Gallery and Fine Arts Academy
- Modern commercial and residential building
- Ancient residential buildings



Figure 10: Piazza Puntoni

For each building, an attempt was made to provide as accurate a picture as possible. Starting with general historical (or contextual) information, data was provided on the current occupation of the spaces, their functional and organisational uses.

The more technical part concerned the surveys carried out: the analysis of the materials found (plans, sections or elevations), the structural analysis carried out and a brief report on the shortcomings found.

All the analyses carried out and reported for each of the six buildings will be included in the broader context of the expeditious evaluations.



**Figure 11: excerpt of the presentation**

The video is available at the following link:

[https://www.youtube.com/watch?v=RCRj\\_iB9Wys&list=PLf87Jv5jEwCOILDPTfr4tVMYleqiw9sp&index=7](https://www.youtube.com/watch?v=RCRj_iB9Wys&list=PLf87Jv5jEwCOILDPTfr4tVMYleqiw9sp&index=7)

### 3.3.7 On site survey public square and public buildings: visit to Bologna University Library and quick demonstration of the tools for the façade survey

The afternoon session was structured in two phases. The first was a visit to the university library in Palazzo Poggi, the second, an inspection of the pilot house in Piazza Puntoni.

The visit to the library took place in the main hall of the library, commissioned by Pope Benedict XIV and completed in 1744. On site, Dr Giacomo Nerozzi explained the history of the building and its place in the history of the university and the city of Bologna.



**Figure 12: Picture of the main hall**

The second part, the visit to Piazza Puntoni, was the concluding part of the event. At first, the opportunity was taken to provide details of the instruments used in the surveys, so the guests were shown the laser scanner and the thermal imaging camera, describing their peculiarities and characteristics. Then an on-site visit was made to all six of the buildings described in the morning: the University Library, Department of economics, University Student House and canteen, the National Gallery and Fine Arts Academy, the Modern commercial and residential building and the Ancient residential buildings. All the construction peculiarities and criticalities of the most difficult structures were highlighted through presentations.

The video is available at the following link:

[Adriseismic Italian study visit - CAM2 laser scanner focus 3D, presentation in piazza Puntoni - YouTube](#)

## 4 Conclusions

The event lasted the whole day, divided into two parts: one part held in the morning and dedicated to presentations and one in the afternoon to visits and inspections.

During the event, the history of the city and the University, which is an inseparable part of Bologna, was highlighted. Moreover, as with the other study visits, we tried to describe as fully as possible the construction and intervention techniques, taking advantage of the precious opportunity available.

The presence mode was the novelty of the organisation and provided a real first moment of confrontation between the partners. In addition, the event was a great success, as shown by the data collected through the online satisfaction questionnaire.



**Figure 13: Excerpt of the Evaluation questionnaire**

## 5 Annex: Italian Study visit Report

In the following pages the report prepared by the Italian partners following the Study Visit is attached

**EVENT REPORT**  
**ITALIAN STUDY VISIT**  
**8<sup>TH</sup> September 2021**



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INTERREG V B – Adriatic Ionian  
ADRION PROGRAMME – SECOND CALL FOR PROPOSALS

PRIORITY AXIS 2 – Sustainable Region

Project duration: from 01/03/2020 to 31/08/2022

LEADER

ALMA MATER STUDIORUM – University of Bologna – Department of Architecture (IT)

PARTNERS

Institute for Vocational Training of Construction Workers in the province of Bologna – I.I.P.L.E. (IT)

City of Kaštela (HR)

Municipality of Gjirokaster (AL)

Regional development agency Backa (RS)

Slovenian national building and civil engineering institute (SI)

University of Crete (GR)

Region of Crete (GR)

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## 1. Study visit - Report template

ALMA MATER STUDIORUM – University of Bologna – Department of Architecture

Venue	In-person mode: Bologna (Italy) – Online mode: Microsoft Teams
Date	8 <sup>th</sup> September 2021
Duration	All day
Type and number of participants involved and role in the event	<ul style="list-style-type: none"> <li>▪ ALMA MATER STUDIORUM – University of Bologna – Department of Architecture (6)</li> <li>▪ City of Kaštela (2)</li> <li>▪ University of Crete (4)</li> <li>▪ Regional Development Agency Bačka (4)</li> <li>▪ Region of Crete (6)</li> <li>▪ Municipality of Gjirokaster (2)</li> <li>▪ Slovenian National Building and Civil Engineering Institute ZAG, organizer (5)</li> <li>▪ Institute for Vocational Training of Construction Workers in the province of Bologna – I.I.P.L.E. (2)</li> <li>▪ Rizomedia - Communication agency (1)</li> <li>▪ Provincial Secretariat for Culture, Public Information and Relations with Religious Communities, AP Vojvodina, Serbia (1)</li> <li>▪ Appignano Municipality (1)</li> <li>▪ Bologna Municipality (1)</li> </ul>
Total number of participants	In-person: 24 – Online: 11
Number of female participants (indicative)	24
Number of male participants (indicative)	11

### Agenda of the event

**8<sup>th</sup> SEPTEMBER 2021 morning 09:45 – 13:00**

**Participants:** all Project Partners + Associated Partners

**Location:** [Accademia delle Scienze, via Zamboni 31, Bologna](#)

**Virtual room:** Here the [link](#) to access

<b>09:45 - 10:15</b>	<b>Registration</b>
<b>10:15 – 10:30</b>	Welcome from the Director of the Department of Architecture – Fabrizio Apollonio

<b>10:30 – 10:40</b>	Welcome to the ADRISEISMIC Associated Partners – Simona Tondelli
<b>10:40 – 11:10</b>	Bologna, the city of knowledge. A historical overview of university architecture – Francesco Ceccarelli
<b>11:10 – 11:30</b>	Introduction to seismic vulnerability in urban planning: the case of Emilia-Romagna Region – Angela Santangelo
<b>11:30 – 11:50</b>	Examples on restoration and preservation techniques – Marco Pasquini
<b>11:50 – 12:00</b>	Q&A
<b>12:00 – 12:20</b>	The Bolognese building types, from the Middle Ages to the Twentieth century – Giorgia Predari
<b>12:20 – 12:50</b>	The buildings on Piazza Puntoni: detailed description of the construction solutions – Giorgia Predari, Lorenzo Stefanini
<b>12:50 – 13:00</b>	Q&A
<b>13:00 – 14:30</b>	Lunch break

**8<sup>th</sup> SEPTEMBER 2021 afternoon 14:30 – 16:30**

**Participants:** all Project Partners + Associated Partners

**Location:** Piazza Puntoni. Starting point: [Accademia delle Scienze, via Zamboni 31, Bologna](#)

<b>14:30 – 16:30</b>	<b>On site survey – public square and public buildings: visit to Bologna University Library and quick demonstration of the tools for the façade survey</b>
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## Photos of the event



**Figure 1: Presentations in the Academy of Sciences**



**Figure 2: group photo**



**Figure 3: afternoon in piazza Puntoni**



**Figure 4: afternoon in Piazza Puntoni**



**Figure 5: afternoon in piazza Puntoni**



**Figure 6: afternoon in piazza Puntoni**

## Event assessment

Overall how would you rate the success of this specific event? (*mark only one option*)

- Very successful
- Fairly successful
- Not too successful
- Not successful at all

Please briefly describe the event including:

**Construction methods, intervention techniques and expeditious assessment methods addressed during the study visit. Specific comments and questions made by participants.**

The Italian study visit was the first event held partially in presence and this allowed to deepen many issues related to the Adriseismic project and specifically to the WPT2. The event was divided in two parts: the first one, dedicated to the presentations, took place in the morning at the Accademia delle Scienze; the second one was dedicated to the visit of the pilot case in the afternoon.

The first lecturer, Francesco Ceccarelli, introduced the city of Bologna to the guests. The presentation focused on the university and its buildings; the relationship between the historical centre and the university over the centuries was illustrated, highlighting the close correlation. The last part was dedicated to the Palazzo Poggi, the seat of the university and, on this occasion, of the conference.

The second presentation, illustrated by Angela Santangelo, dealt with the issue of seismic vulnerability from the point of view of urban planning. The sub-systems into which each city is divided (physical, functional and social system) were described and from which to create homogeneous areas. The creation of such areas can be fundamental in defining prevention strategies on an urban scale, and the experience of the Emilia Romagna region is described.

The third presentation, by Marco Pasquini, went into more detail about the restoration and preservation techniques used in Italy on existing buildings. Practical examples and the application of the described techniques to real cases were shown.

Giorgia Predari, during the fourth presentation, described the most common types of buildings in the city of Bologna, addressing the evolution of construction techniques from the Middle Ages to the present day. The first settlements and their development (and aggregation) over the years were described, and information was provided on the different types of buildings present locally, making distinctions between palaces, residential buildings and convents.

The last presentation, illustrated by Giorgia Predari and Lorenzo Stefanini, concerned the case study chosen in the Adriseismic project: Piazza Puntoni. For each of the six buildings chosen as the object of analysis, a general historical framework was provided, as well as data found during the investigations carried out, an analysis of the construction techniques used in their construction and a rapid assessment of the main vulnerabilities.

In the afternoon, before visiting Piazza Puntoni, guests were taken on a tour of the Bologna University Library, located in Palazzo Poggi, where the local history and the events that have characterised the building over the centuries were illustrated.

The last part of the event was dedicated to an inspection of the Pilot case area. On the square, Davide Prati first described the operation of the laser scanner used in the survey phases, then Giorgia Predari and Lorenzo Stefanini described the characteristics of the buildings, highlighting their construction peculiarities.

Is there anything you would change about the event? If so, what?

The blended mode did not allow a complete experience for the partners who could not participate in presence, especially for the activities organised in the afternoon (tour of the Piazza and visit to the University Library).

## 2. Evaluation questionnaire

A feedback questionnaire has been shared with the participants. An online form has been prepared, as the whole event was held online.

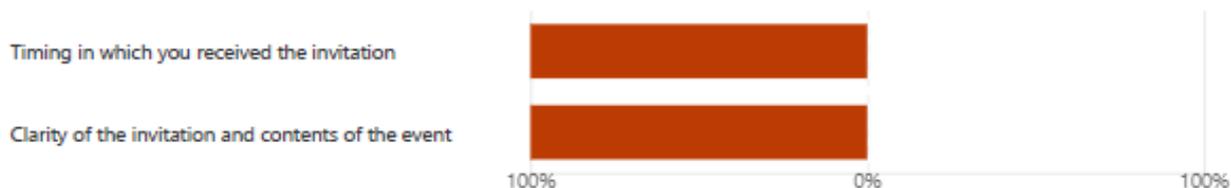
20 responses have been collected. The summary of the results is shown below:

■ Very much ■ Much ■ Fair ■ Insufficient at all



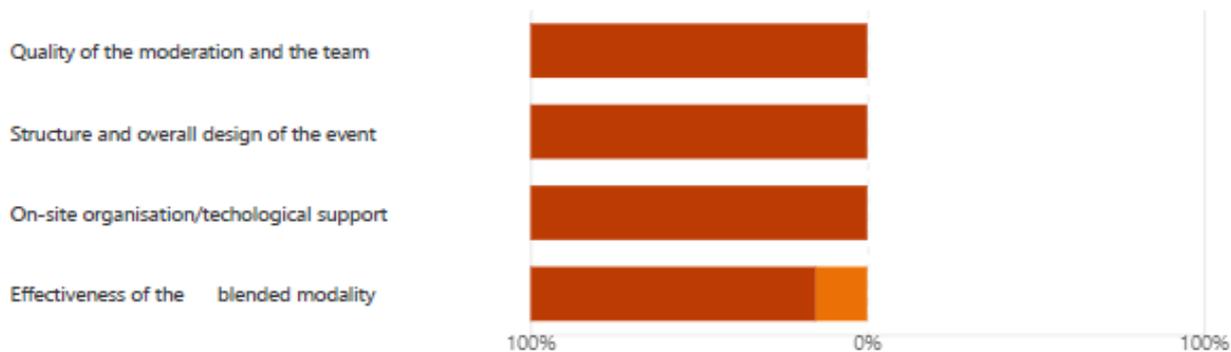
### 2. How much are you satisfied for the following:

■ Very satisfied ■ Satisfied ■ Quite satisfied ■ Not satisfied



### 3. How would you rate the following:

■ Excellent ■ Good ■ Fair ■ Insufficient



### 4. What did you most appreciate during the event?

 Insights

20

Risposte

Risposte più recenti

"Great ADRISEISMIC team in Bologna"

"The hospitality of the people"

"Good lecturers' lessons."

3 intervistati (15%) hanno risposto **partners** a questa domanda.



5. Do you have any recommendation for the improvement of the organisation of the next study visit?

 Insights  
**20**  
 Risposte

Risposte più recenti  
 "/"  
 "No"  
 "Nothing specific."

2 intervistati (10%) hanno risposto **city** a questa domanda.

