D9.7 Dissemination and Communication Plan

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[1] **R**=Document, report; **DEM**=Demonstrator, pilot, prototype; **DEC**=website, patent fillings, videos, etc.; **OTHER**=other

[2] **PU**=Public, **CO**=Confidential, only for members of the consortium (including the Commission Services), **CI**=Classified, as referred to in Commission Decision 2001/844/EC

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Acronyms and Abbreviations

AB	Advisory board
CA	Consortium Agreement
CC	Climate Change
CH	Cultural Heritage
CoP	Communities of Practices
CDP	Communication and Dissemination Plan
D&C	Dissemination and Communication
GA	Grant Agreement
DCP	Dissemination and Communication Plan
GPL	General Public License
HRAP	Holistic Risk Assessment Platform
ICCS	Institute of Communications and Computer Systems
IEMC	Intercultural Euro-Mediterranean Center for UNESCO
PC	Project Coordinator
PCT	Project Coordination Team
PM	Project Manager
QM	Quality Manager
QP	Quality Plan
RG	Resilience Guard GmbH
WP	Work Package
SG	Structural/Geotechnical (tool)

PET	Privacy Enhancing Technologies
TBC	To be Confirmed
NTUA	National Technical University of Athens

Glossary of Terms

Activity (/ies)	Activities are the actions needed to convert inputs into outputs.
Consortium	is - in general - a group of institutions or companies acting together in the same project under common interest. In Horizon 2020 it refers to all the participants in the same project.
Coordinator	in Horizon 2020, is the member of the consortium who is the principal point of contact on behalf of the members of the consortium in relations with the Commission or the relevant funding body. The coordinator is identified as such in the Grant Agreement.
CORDIS	the Community Research and Development Information System is the European Commission's primary public repository and portal to disseminate information on all EU-funded research projects and their results in the broadest sense.
Dissemination (Horizon 2020)	means, in Horizon 2020, the public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications via any medium.
Exploitation	means, in the context of Horizon 2020, the use of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation activities.
General Objective (=Overall Objective)	The long term, intended or unintended, impact (physical, financial, social, environmental or other benefits), to which the project is expected to contribute.
Grant Agreement	is a contract concluded between the European Union or a funding organisation and the beneficiary (or beneficiaries) that have been successfully evaluated in the proposal stage of Horizon 2020. Under this agreement, the beneficiary is awarded a grant and commits to a set of rights and obligations.
Horizon 2020	refers to the EU Framework Programme for Research and Innovation (2014-2020). It is the successor of the Seventh Framework Programme for Research and Technical Development (FP7), the Competitiveness and Innovation Framework Programme (CIP) and the European Institute of Innovation and Technology (EIT).

End user	Individual, group or organization that uses the project's outputs or outcome to reach higher level results. This would include, for example, farmers, service users, doctors, or in certain cases even members of society at large.
Indicator	A quantitative or qualitative variable that provides a simple and reliable means to measure achievement, or to capture results fully or partially generated by a project. Thus the indicator facilitates comparison of actual against planned performance of a project. An indicator should be SMART (specific, measurable, achievable, reliable and time-bound) so that it describes the planned or achieved result in terms of quality, quantity and timeliness.
Intellectual Property (IP)	refers to the creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.
Intellectual Property Rights (IPRs)	are private legal rights that protect the creation of the human mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce. They are commonly divided into two categories: Industrial Property Rights (e.g. patents, trade marks, industrial designs, geographical indications) and Copyright and Related rights (e.g. rights of the authors/creators and those of performing artists in their performances, producers of phonograms in their recordings, and those of broadcasters in their radio and television programmes).
Know-how	means a package of non-patented practical information (of a technical, commercial, administrative, financial or other nature), resulting from experience and testing, which is secret, substantial and identifiable.
Objective (generic term):	An end that can be reasonably achieved within an expected timeframe and with available resources. Related terms: overall objective, outcome, and outputs.
Open access	within the context of EU-funded projects, refers to the practice of providing on-line access to scientific information that is free of charge to the end-user and is reusable. In the context of research and innovation, scientific information can refer to (i) peer-reviewed scientific research articles (published in scholarly journals) or (ii) research data (data underlying publications, curated data and/or raw data).

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Executive Summary

The aim of this deliverable (D9.7) is to address how HYPERION project has managed to deliver an effective communication and dissemination plan related to the overall dissemination and communication activities of the project.

The main objective of the current deliverable - Dissemination and Communication Plan (DCP) (v2), is to raise awareness for the project activities and results in order to make HYPERION a successful project in terms of exploitation of outcomes and establishment of a diverse network that supports the integrated resilience assessment platform, focusing on multi-hazard risk understanding, better preparedness, faster, adapted and efficient response, and sustainable reconstruction of historic areas.

The present DCP gives an overview of the approach that HYPERION adopted and followed on both Communication and Dissemination. It focuses on all communication and dissemination activities throughout the project's life circle (all WPs over the duration of the HYPERION project). It summarises these activities and evaluates their effectiveness. The report also reflects on achievements in reaching all target project audiences.

The first version of this document (D9.3) was developed in month sixth (M6) of the project. The content of sections "1 Introduction", "2 Internal Communication Strategy" and "3 External Communication and Stakeholders' engagement" (developed in the first version of DCP D9.3) remains in this second version (D9.7) as guidance for the reader, following the structure of the tasks set out in WP9 – "Dissemination, Communication and Standardization Activities". Additional updates were included in these sections.

The second part of the report (Sections 4-9) contains an overview of communication and dissemination activities connected with HYPERION's efforts to communicate with the target groups, it reflects on achievements in reaching all target project audiences and it presents and analyses the performance of the main communication channels (such as the project website, social media, newsletters, data dashboard, etc.).

The dissemination and communication activities were considerably affected by the COVID-19 pandemic, which coincided with the first half of the project. This led to a shift in focus to online communication at the cost of physical meetings. Additional limitations ensued from the impracticality of reaching some groups of targeted audiences. Some target groups also turned out to be less significant than we expected, while new ones emerged. Besides that, the ambitious targets that the HYPERION team set in the project proposal for the project's communication and dissemination plan and respective activities were in the majority of cases reached or super passed. Each of HYPERION project partners allocated time for dissemination and had an important role to play in the successful communication and dissemination of the project, demonstrating their consistent commitment.

1 Introduction

1.1 Background

In Horizon 2020 (H2020)-funded projects, communication, dissemination and exploitation are contractual requirements as well as important elements that can ensure compound benefits for the project, such as:

- increasing the visibility of the research;

- enhancing the participating partners' reputations;

- helping stakeholders gain understanding of the topic and its importance in the bigger picture of the context in which the project takes places;

Communication and dissemination also allow partners

- to polish their profile within the scientific community;

- derive economic benefits;

- attract users of the project results;

More generally, these measures can help strengthen the research and innovation landscape in Europe and to spread knowledge that can be built upon by others. [2], [6]

The deliverable D9.3 Dissemination and Communication Plan [5] published in January 2020, presented the communication and dissemination strategy for the HYPERION project. It ensured that all communication and dissemination requests, from various WPs and the project in general, are taken into consideration and are effectively coordinated and defined clear and coherent messages tailored to the various project target groups. It included an overview of communication channels (such as the project website, social media channels, materials, etc.) and it presented the project's visual style and addressed data protection issues. It also set out a detailed plan for communicating the various project outputs and results, set the communication objectives and identified key target audiences. Moreover, it contained all the important information needed to facilitate the communication efforts of the HYPERION consortium. HYPERION is highly dependent on well-organized and implemented communication and dissemination activities.

The current Dissemination and Communication Plan (D9.7) – prepared through the Dissemination, Communication and Standardization Activities Work Package (WP9) – monitors and evaluates the impact of communication and dissemination activities just before the project ends (M48). It proves the adequate progress of the project, to produce the envisaged results, and to successfully achieve the fundamental goals all through HYPERION's life circle. HYPERION project used an extensive range - in terms of their content and form - of communication activities and successfully reached all of the project's important target groups and key performance indicators.

The management and overall implementation of Dissemination and Communication activities is led by **IEMC** (WP9 leader and the leader of Tasks 9.1-9.4.), **RG** (Leader of Task 9.5) and **ICCS** (Project Coordinator) also play strategic role in the Dissemination and Communication by providing guidance and carrying out several implementation aspects. In addition, all HYPERION partners were deeply involved in the Dissemination and Communication work, providing

contents, developing scientific publications, participating in high-impact events, promoting the project's outcomes, etc.

1.2   Purpose of the document

The objective of HYPERION DCP is to identify and evaluate the activities that were performed in order to communicate the benefits of an integrated resilience assessment platform, addressing multi-hazard risk understanding, better preparedness, faster, adapted and efficient response, and sustainable reconstruction of historic areas; to disseminate results of HYPERION project; and to raise citizens awareness and policy makers implication.

The present document, Deliverable D9.7 (DCP, Dissemination and Communication Plan), has been elaborated in the framework of WP9 (Dissemination, Communication and Standardization Activities), regarding Task 9.2 (Development and update of a Dissemination and Communication Plan).

Its main purpose is to report on the Communication and Dissemination activities implemented in all lifecycle of the project to promote its concept and outcomes to the defined target groups. The current deliverable provides the most detailed report of the work carried out by HYPERION partners in this domain, with particular emphasis on the fulfilment of the pre-defined key actions.

The document describes the activities carried out for the purposes of Communication and Dissemination accounting for communication and dissemination activities, reporting of dissemination activities, channels and promotion tools (logo, visual identity, website, social media, dissemination material, publications, events, etc.) and synergies with other projects and initiatives.

It summarizes the strategy of the consortium and the concrete actions that were used to disseminate the foreground generated by the project, pointing out activities and achievements. In the DCP the type of messages, key audiences and channels are detailed. The DCP also includes the project visual identity and common layouts for the communication materials. Dissemination is a horizontal activity and concentrates on disseminating the results of HYPERION project itself to a wide range of existing and/or potential stakeholders. The practical experience and guidance that emerged from the project work, are of high relevance to an array of stakeholders within EU and beyond and will be of value across different sectors and internationally.

To fulfil the dissemination and communication aims, HYPERION worked through various carefully focused groups and committees, through formal and informal mechanisms. Clear channels of communications between the project partners themselves as well as with a broader community played a crucial role in the success of the project

1.3   Intended Readership

This Deliverable is "Public", thus accessible to anyone interested. It is primarily written for the European Commission (EC) Project Officer (PO) and the consortium members of the HYPERION Project in order to inform them about the HYPERION brand identity and dedicated guidelines, the project's communication and dissemination materials and channels as well as the implemented activities. Specifically, it served as an instrument that helped them understand the communication's objectives of the project and how these could contribute to project's awareness in an efficient and effective way.

Nevertheless, special effort and attention has been given in making this report as a stand-alone document and comprehensible for the general public.

1.4 Key Concepts defined

As communication and dissemination are the key concepts in this deliverable, below we have included their definition and an explanation of their relationship in keeping with the guidance provided by the European Commission [1], [7].

Dissemination is the public disclosure of the results of the project in any medium. It is a process of promotion and awareness-raising right from the beginning of a project. It makes research results known to various stakeholder groups (like research peers, industry and other commercial actors, professional organisations, policymakers) in a targeted way, to enable them to use the results in their own work. This process must be planned and organised at the beginning of each project, usually in a dissemination plan. ("What is the difference between dissemination, exploitation and communication?" Research and Innovation Participant portal, FAQ ID: 933, March 2016).

Communication means taking strategic and targeted measures for promoting the action itself and its results to a multitude of audiences, and possibly engaging them in a two-way exchange. The aim is to reach out to society as a whole and in particular to some specific audiences while demonstrating how EU funding contributes to tackling societal challenges. ("What is the difference between dissemination, exploitation and communication?" Research and Innovation Participant portal, FAQ ID: 933, March 2016).

Starting with **Communication**, this DCP differentiates between various kinds of communicating and networking actions depending on the nature of the content to transmit, which audiences are being addressed and what kind of interaction is deemed necessary to ensure the impact of the project. In that respect, there are two communication pillars that HYPERION DCP focuses on:

- internal communication;
- external communication and stakeholders' engagement and networking;

The **Internal communication** applies to the exchange of information and communication within the project - among project partners, while **external communication** refers to the activities, focused on reaching out the various targeted audiences that the project is addressing. Furthermore, **stakeholders' engagement and networking** are about including a targeted community into a corresponding discussion about:

- the role of HYPERION, its concept, purposes and achievement processes and
- the capacities, future enhancements and possible drivers that may lead to address multi-hazard risk understanding, better preparedness, faster, adapted and efficient response, and sustainable reconstruction of historic areas.

This includes events, where exchange of positions, views and information can be facilitated, and consultation processes intended at obtaining targeted feedback.

2 Internal Communication

2.1 Communication Approach

The significance of internal communication lies in its relation to the external communication and dissemination of project's assets. The strategy followed and analysed in the following pages, aimed to foster cooperation and knowledge exchange among all project partners. HYPERION's internal communication channels and activities have been chosen and were implemented to serve as a tool for an effective external communication and to support the efficient delivery of messages to the identified key audiences.

2.1.1 Internal Communication Activities

HYPERION partners were highly engaged with each other by immediate distribution and exchange of information on the collaborative system (REDMINE) set up for this purpose, through online messaging across the partnership and, when necessary, through targeted messaging to subgroups within the partnership. To facilitate this exchange of information each partner designated, apart from its legal and project representatives, a contact person for each task it was involved with.

Internal communication, when referring to messages and news (whatever nature they have; announcements, presentations, etc.) that are to be published for informing the general public (including targeted audiences), serves to facilitate efficient and effective external communication. To that end, HYPERION WP Leaders and the Project Coordinator, were tasked with regularly compiling and identifying the relevant information that WP9 Leader needs to transmit and communicate externally.

The Information flow within HYPERION was ensured by the exchange of internal technical and business documents, the notification of relevant new publications in the literature, or by the standard bodies and the reports from external meetings.

All documentation were exchanged based on a set of guidelines that were agreed and described in the GA. A web project document repository (REDMINE) was available by ICCS from the very beginning of the project. Telephone and fax were used for urgent needs only. Ordinary mail was used for strictly formal correspondence, i.e. when executive signatures were required. Adherence to the agreed communications standards were enforced by the PC and the QM. The Project Coordination Team (PCT) met every four to six months to monitor project progress. WP meetings were also around every four months, most of the times combined with PCT meetings or organized workshops (either in WP2 or the exploitation workshops). WP meetings took place whenever required through telcos. All meeting arrangements initiated by partner were communicated to the PCT in advance, which undertook to organise the timing and location of meetings, by combining more than one meeting in parallel, thus minimizing travel costs.

Additionally, the other eight WP Leaders (WP1-WP8 &WP10) were engaged in informing IEMC and ICCS on the progress made in their respective work packages at any time when this was considered relevant for enhancing the external profile HYPERION so that all outputs and newsworthy events could be communicated promptly and regularly. When necessary, WP Leaders, other than of WP9, appointed a contact person to act as contact and rapporteur towards the WP9 Leader regarding their communication activities.

2.2 Internal Communication Tools

Several mechanisms and means were implemented (under the responsibility of WP9 Leader) to enable an effective use of internal communication channels. In order to enhance the communication process and make sure it is as efficient as possible, as well as to achieve the communication objectives several different communication channels as well as data sharing possibilities were selected and implemented by the project team. The different communication channels and methods are named and it is described when and to what purpose they were used.

2.2.1 Working platform

www.redmine.org has been selected as the supporting project management platform. This choice was made because the same platform was used by most of the partners in previous projects. Corresponding user privileges and online profiles have been given to all partners. This platform gathered the internal communication processes, including message exchanges, upload of documentation, deadlines establishment, milestones fixing, and internal assignment of tasks and duties. Establishing this Internal Communication Platform was responsibility of project coordinator, ICCS. Adequate online messaging services (on individual or group basis) included in the platform were used by involved participants. Those lists were updated regularly. The lists differentiated between project members and their roles, so that messages could be sent automatically to groups, such as Work Package Leaders, Task Leaders, and Finance Administrators, Project Managers, etc. The lists were created as early as in M1, and were either

- of general purpose, or;
- at group level (Work Package and/or coordination and/or others as agreed during the project);

The first one, namely the general HYPERION mailing list, was in place since the starting of the project.

2.2.2 HYPERION website

HYPERION's website is available in the domain https://www.hyperion-project.eu/ and serves as a powerful communication tool and a key element of engagement with the partners. The progress of the project was continuously visualized on the HYPERION website. Its basic objective was to create an easily accessible public platform for dissemination of public deliverables, open access publications, presentations, newsletter issues etc. Moreover, it acted as a repository for materials for all partners.

2.2.3 Partner progress meetings

Regarding more direct exchanges, to facilitate inter-project communications and encourage the exchange of information relevant for the communication project leader, ICCS set up the Kick-off meeting in Athens, Greece on the 4th of June 2019. It has been agreed to organise monthly

teleconferences of the Project WP. The Consortium met every four to six months to monitor project progress.

All PM meetings were posted using the social media indicative posts.

FIGURE 1: HYPERION'S KICK OFF MEETING IN ATHENS, (SCREENSHOT FROM THE TWITTER ACCOUNT)
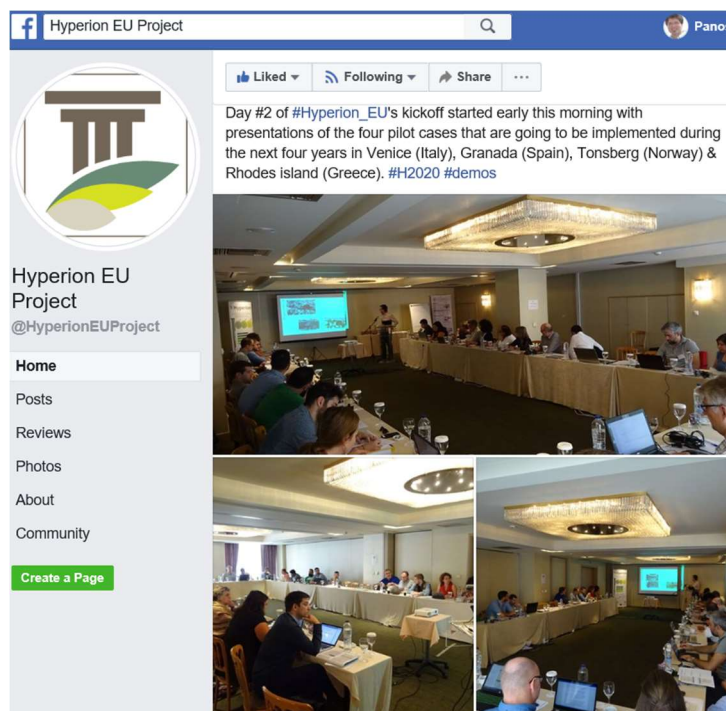
FIGURE 2: HYPERION'S FIRST PM MEETING IN RHODES, (SCREENSHOT FROM THE FACEBOOK ACCOUNT)
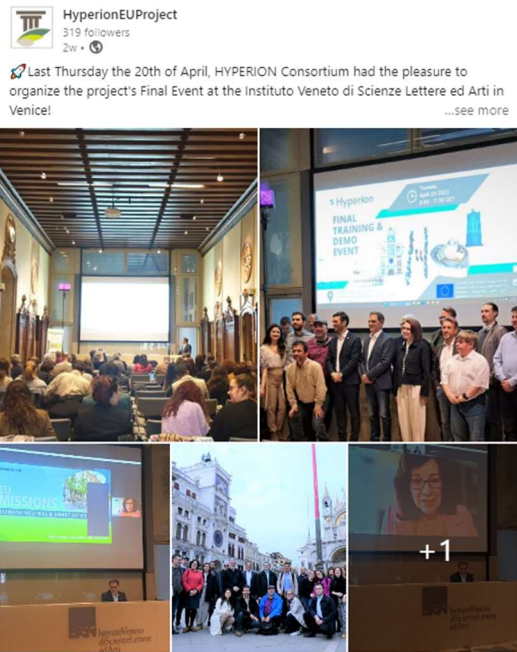
FIGURE 3: HYPERION'S FINAL DEMONSTRATION & TRAINING EVENT IN VENICE, (SCREENSHOT FROM THE LINKEDIN ACCOUNT)

FIGURE 4: HYPERION'S FINAL DEMONSTRATION & TRAINING EVENT IN VENICE, (SCREENSHOT FROM THE TWITTER ACCOUNT)

2.2.4 All-hands meetings

Due to COVID-19 restrictions HYPERION project transferred most of the meetings into teleconferences. After every monthly teleconference the WP Leaders when there was a specific occasion and mainly, when project's outputs were prepared initiated open discussions and

ensured intense collaboration. These meetings were instrumental in intensifying internal communication and they served the quality of the outputs.

TABLE 1: HYPERION TEAM MEETINGS

Meeting	Communication type	Place	Date	Purpose
Kick off Meeting	Face to face	Athens, Greece	04-05/06/2019	Fine-tuning of the work plan and approach. Information sharing about practical issues and familiarisation to consortium members.
1st Plenary meeting	Face to face	Rhodes, Greece	23-24/10/2019	All WP leaders presented an overview of the work performed since the KoM, the upcoming deliverables/milestones, the challenges/problems that they face and presented a detailed 6 months plan.
Architecture meeting	Face to face	Athens, Greece	26/11/2019	Partners from ICCS, CyRIC, RISA and NTUA met to discuss the architecture of HYPERION's Holistic Resilience Assessment Platform (HRAP) and decide on the system's functionalities and components.
2nd Plenary meeting & internal workshops	Teleconference		22-23/04/2020	All WP leaders presented an overview of the work performed since the previous plenary meetings, the upcoming deliverables/milestones, the challenges/problems that they face and presented a detailed 6 months' work plan. Moreover, 3 workshops also took place, regarding the HRAP architecture, WP3, WP10 and HYPERION's pilot sites.
3rd Plenary meeting	Teleconference		10-11/11/2020	All WP leaders presented the research work implemented during the project and the and the challenges they faced due to COVID-19.
1st Project Review Meeting	Teleconference		04/03/2021	All WP leaders presented the research work implemented during the project in the 1st reporting period and the challenges they faced due to COVID-19.
4th Plenary Meeting	Teleconference		07/07/2021	All Work Packages were thoroughly presented while a plan with the upcoming workshops and pilot site visits was set up.
5th Plenary Meeting	Teleconference		25/11/2021	All WP leaders presented the research work implemented during the project in the 1st reporting period and the challenges they faced due to COVID-19.
6th Plenary Meeting	Face to face	Oslo, Norway	14-17/06/2022	All Work Packages were thoroughly presented while a plan with the upcoming workshops and pilot site visits was set up.
2nd Project Review Meeting	Teleconference		26/10/2022	All WP leaders presented the research work implemented during the project for the 2nd reporting period.
7th Plenary Meeting & internal workshops	Face to face	Granada, Spain	9-10/11/ 2022	Information exchange and networking within consortium, addressing of cross-WP technical issues. Discussions about detailed issues in WPs.
Final Demonstration & Training Event	Face to face	Venice, Italy	20/04/2023	All project's results and key findings were presented in detail for the 1st time in the public.
Exploitation Consensus Workshop	Face to face	Venice, Italy	20/04/2023	During HYPERION's Final Event an exploitation consensus workshop was organized with unique goal to gather stakeholders' feedback on the HRAP platform & assess HYPERION's designed exploitation strategies.

8th Plenary Meeting	Face to face	Venice, Italy	19 & 21/04/2023	Information exchange and networking within consortium, addressing of cross-WP technical issues. Discussions about detailed issues in WPs & decisions regarding the upcoming deliverables.
Final Review	TBC	TBC	TBC	All WP leaders will present the research work implemented during the project and the significant results.

2.3 HYPERION identity/logo design

The logo of HYPERION and the full graphic identity linked to the project (a visual charter including different formats, colour scheme, typography etc.) have been developed in wide consultation across the project. The design plot of the logo allowed the partners to use it in every communication activity, both internal and external.

The logo design was inspired by the key thematic areas of the project.

FIGURE 5: PROJECT'S LOGO

Colour definitions (colour systems Pantone and CMYK are used in print processing; RGB and HTML are used for displaying on a screen).
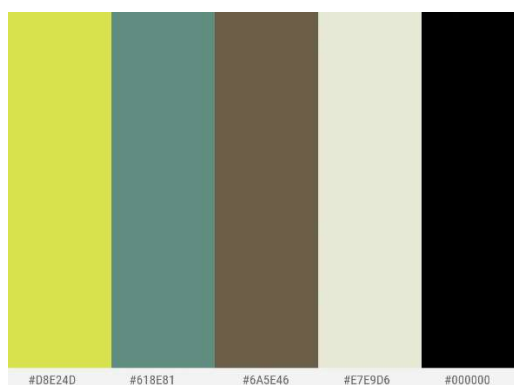
FIGURE 6: LOGO'S COLOUR PALETTE

All visual identity elements are available online at the internal communication platform.

2.3.1 HYPERION templates

In the context of HYPERION's consistent brand identity and in order to keep a credible and professional "look and feel", a set of HYPERION templates (letters, posters, power point presentations, deliverables, minutes, business cards) have been created based on the project's brand guidelines and were available to all partners through HYPERION's common online collaborative tool.

2.3.2 HYPERION internal communication and dissemination procedures

For better updating, collecting and reporting of all upcoming HYPERION's dissemination activities, an internal mechanism has been created, called "dissemination procedures", to monitor all such activities. The basic objectives of these procedures were:

- ✓ To produce high quality HYPERION publications and presentations;
- ✓ To avoid overlaps and possible disclosure of restricted or confidential information;
- ✓ To monitor and keep an appropriate registry of the dissemination activities of the project;

All these procedures are described in detail in Annex 1 of this document.

2.3.3 Repository for HYPERION events and journals

In the context of HYPERION, special attention was given to the project's dissemination activities as well as in the event organisation and participation, throughout the course of the project.

In the beginning of the project, a repository was created for HYPERION events and journals that were considered as valuable opportunities for the project. The repository included an indicative list of proposed scientific journals and an indicative list of proposed upcoming European and International events and it was regularly updated by IEMC and by the consortium partners. In addition, HYPERION partners were also regularly informed through emails about upcoming key opportunities to benefit from them.

3 External communication and stakeholders' engagement and networking

3.1 Objectives

The Communication and Dissemination Strategy of HYPERION aimed to develop an infrastructure which fosters cooperation and knowledge exchange between different research communities in order to enhance resilience and reduce vulnerability of historic areas to climate change and other natural hazards, also accounting for their synergistic impact; and improve reconstruction and economic and social recovery of historic areas by local authorities and communities through the use of new knowledge and tools.

The aim of HYPERION Communication activities was to effectively disseminate information of the activities of the project and to communicate its outcomes to multiple audiences. The objectives of the DCP were the following & were successfully met.

- Develop an effective dissemination and communication strategy;
- Communicate and disseminate project results and products/systems during and after the lifetime of the project;
- Promote project technologies;
- Ensure widespread use and awareness raising of the developed project technologies;
- Identify the main stakeholder types/categories with emphasis to identify and prioritize dissemination tools;
- Specify how the stakeholders can be activated to contribute to the project;

3.2 Communication Approach

The general purpose of HYPERION's Communication and Dissemination Strategy was to develop effective and efficient communication and dissemination ideas, ensuring that it will abide to the core objectives of the agreed dissemination strategy and that key messages would be properly and consistently delivered.

The Communication and Dissemination Strategy of the HYPERION project was based on a four plus one-step approach, as outlined here below:

- **Stage 1 (M1-M12):** Raising awareness of project activities, outputs and benefits through diverse channels to audiences that do not require a detailed technical knowledge of the work carried out;
- **Stage 2 (M6-M24):** Promoting a deeper understanding of new knowledge and results for several audiences who can benefit from what the project can offer;
- **Stage 3 (M18-M30):** Engaging with target groups to encourage their willingness to make use of project results. This stage will be the main focus of WP7 and WP8;
- **Stage 4 (M24-M48):** Influencing decision-making within organisations regarding the uptake of HYPERION outputs and supporting the implementation of the Exploitation Plan. This stage will be the focus of the final WP (WP10);
- **Stage 5 (M48-2 years after the completion of the project):** Utilizing the project results in further research activities other than those covered by HYPERION project, developing, creating and marketing the platform. This stage will be the focus of the Exploitation plan (see §9- Planning Exploitation);

3.3 Communication and Dissemination SWOT Analysis

The way in which HYPERION was introduced on behalf of the consortium, as well as the context in which the project was being implemented, led to several unique strengths, weaknesses, opportunities and threats regarding its communication and dissemination objectives.

The strengths of the project were articulated in the large network of partners, involved in existing research (infra)structures with their communication channels, rather than the existence of

representatives from each target audience within the consortium, the project's long-term vision, as well as the digitization of analogue resources in a transdisciplinary framework, which promotes a use of the 'state-of-the-art' standardization-tools.

The weaknesses, such as the difficulty of tailoring messages to specific target groups in order to reach audiences beyond academia and the downsides of putting too much weight on technological aspects in communication activities were likewise considered.

<div align="center">TABLE 2: D&C SWOT ANALYSIS</div>

Strengths	Weaknesses
• *HYPERION* included major players, including worldwide end-users, industrial partners and academia partners: each one is expert in the relevant field of CH; • Most partners are involved in existing research structures with multiple communication channels; • Representatives from each stakeholder group and user community were present in the consortium; • Project's long-term vision; • Transdisciplinary – linking different research fields; • Partners were actively involved in using and promoting state-of-the-art existing systems and facilities; • Open-source nature of flagship HRAP platform could develop trust in the methodology and encourage scientific community engagement. The availability of a dual (non-GPL) license allows industry to participate and employ HRAP for commercial products; • Regularly evaluation of dissemination goals; • Information accessible through web-based tools;	• CH and cities as end-users (operators) were often not particularly interested in sophisticated (ICT-based) solutions, especially given the current level of economic crisis (particularly in the South and South /East Europe); • Need for special training of the system operators; • Difficulties among different communities in *HYPERION* multidisciplinary approach; • Tailoring messages to diverse audiences/target groups was in some cases difficult; • Difficulty reaching audiences beyond academia; • Sceptical attitude on the use of new communication/ dissemination tools (e.g. REDMINE / social media); • Lack of direct citizen involvement; • COVID19 outbreak caused problems with stocks of electronic components worldwide, significant delays in delivery of components and materials (essential for the implementation of technical activities in the pilot sites) and difficulties in installing technical equipment on pilot sites and visiting them for maintenance;
S	W
O	T
• Networking with other projects; • Real necessity of upgrading existing services to meet the EC standards, as well as the worldwide trends in the specific domain; • Support policy making and projects by engagement and support; • Project's output may be rolled out beyond European borders; • Increasing the availability of validated open data; • Use of different D&C tools (traditional and new) • Exchange good practises with partners and stakeholders; • Data available under open access; **Opportunities**	• Data sharing and Heterogeneous legislation/policies per country / type of organistaion; • Competition for low-cost CH-oriented management (inspection/maintenance) tools; • Target audience not familiar with project's terminology and concepts; • Difficulties with breaking down existing (traditional) practice of established professionals and policy makers; • Non-efficient use of infrastructure due to lack of knowledge of how-to-use; • Risks of social media use (e.g., social media bots, internet trolls, Information leakage); **Threats**

On the other hand, HYPERION offered opportunities to support public bodies and/or CH resilience projects, through linking outputs to a globally rolled out, validated, open data source, which might tackle down real necessities of upgrading existing services to meet the EC standards, as well as the worldwide trends in the specific domain.

Identified threats manifest themselves in the targeted audiences not being familiar with terminologies and concepts about micro-climatic and atmospheric stressors, consequently missing out communication and participation approaches specifically addressed to them after losing interest in the project rather than not being aware of the project's existence. Stakeholders from social sciences and humanities, archaeologists, archaeometrists to architects, conservators to CH experts and governmental bodies struggled with breaking down established, existing (traditional) practices and standards, whilst other observers showed unwillingness to make their data available under open access. Another threat-issue that was successfully addressed in missing (new) output and outcomes due to a non-efficient collaboration with HYPERION partner. Moreover, another challenge that was successfully addressed was that HYPERION partners may have failed to support the infrastructure's sustainability, by limiting themselves to contributing input but not providing information and tutorials regarding the platform's usability. Causing therefore, a non-efficient use of the infrastructure due to a lack of information on how to use it. To face this issue HYPERION decided to create an online training session for the HRAP which was recorded and will be disseminated through various online channels ensuring the constant training of new users. COVID19 also caused significant challenges to the project's course such as problems with stocks of electronic components worldwide, delays in delivery of components and materials (significant to implement technical activities in the pilot sites) and difficulties in installing the equipment on pilot sites and visiting them for maintenance.

The Table above visualizes the strengths, weaknesses, opportunities and threats described above:

3.4 Target Audiences

In order to secure success in engaging stakeholders in using HYPERION results, the focus of the project's dissemination and communication efforts targeted large historic areas with climate data value chains. Stakeholder engagement was essential to the success of all dissemination initiatives, and stakeholder identification was the first and foremost important task in effective stakeholder engagement. Since the beginning of the project, HYPERION defined target audiences according to their interests, needs and drivers. In order to achieve effective dissemination, it was necessary to understand stakeholder motivations. This enabled the Consortium to effectively engage, communicate with and promote dialogue between different stakeholders.

The target audiences for HYPERION project dissemination were being grouped into five different categories, namely the scientific community, private sector, policy makers, public bodies and general public.

Scientific Community	Private Sector	Public Bodies	Policy Makers	General Public
Academia Researchers Applied Technology Field Test Facilities Other H2020 And FP7 Related Projects	Technology Developers Supply/ Service Chain Utilities Archaeologists Archaeometrists Architects Conservators CH Experts	Local Government Cultural Authorities From The Ministries Governmental Bodies Dealing With Planning, Policies And Socio-economics Environmental Policy Bodies European Commission	Environmental Planning Regulators Permitting Bodies Antiquities Planning	Environmental And Cultural NGOs Other Users Of the CH Citizen Organisations Individual Citizens Students

FIGURE 7: TARGET AUDIENCES FOR HYPERION PROJECT DISSEMINATION

3.5 Project's Communication Channels

For the effective messaging, a broad range of communication channels including traditional and new media have been utilized by the project in order to reach, speak and interact with its target audiences, capturing their attention frequently and precisely.

The main communication and dissemination channels used to target specific groups of stakeholders have been divided into one-way channels and two-way channels. One-way channels had the benefit of achieving broad visibility, reaching the general public "en masse" and enjoying the credibility of established media platforms. Two-way channels were more effective as they involve dialogue, interactivity and flexibility, but they often reached a smaller number of people. The key communication channels for HYPERION are detailed below.

Moreover, during HYPERION's course, each project partner was committed to create a high level of publicity for HYPERION and the objectives, vision and results of HYPERION were communicated through partners organisations communication channels in order to generate broad public awareness of HYPERION activities and results.

One-way Communication Channels

- Project website;
- Digital media, such as online newspapers and magazines;
- Traditional media, such as TV, radio and press;
- Communication and dissemination materials, such as roll up banners, leaflets, posters, etc.;
- Newsletters;
- Annual magazines;
- Press releases,
- Publications in scientific journals;

Two-way Communication Channels

- Social media: Twitter, LinkedIn, Facebook, Instagram;
- Interactive discussion on social media;
- Dialogue with networks, communities and associations;
- Physical meetings;
- Field events such as conferences, fairs, special sessions and workshops;
- Pilots;
- Final Event;

FIGURE 8: HYPERION'S COMMUNICATION CHANNELS

3.5.1   One-way Communication Channels

Project website

The HYPERION website (https://www.hyperion-project.eu/) was the main interface for communication to the public. Analysis of it is provided in deliverable 9.2. The website contains information on the project's goals, partnership, performed activities and the project's results. Throughout the project, the website also allowed access to all the available dissemination materials and hosted all HYPERION news and upcoming activities. Moreover, it included all information regarding press activities and liaisons with other sister projects. In order to maximize website's visibility, free or affordable methods to increase page ranking on search engines were used.

HYPERION's basic objective was to create an easily accessible public platform for dissemination of deliverables, open access publications, presentations, newsletter issues etc. The website included information of the project and the possibility to get in contact with project partners. Interested parties were also able to register in order to receive updated information and

networking opportunities. Electronic newsletters reporting on project events results were also published on the website of the project reaching a wide community of potential stakeholders. The interactivity and updated content of the website attracted attention and repeated visits.

The website was the main visual window for communicating the materials of the project and it was available at month five (5) from the project kick off meeting in Athens.

The website followed the visual identity of HYPERION, as used in all project communication materials which allowed to vamp up the visual and be more interactive with everyone involved.

FIGURE 9: HYPERION'S WEBSITE VIEW

The website provided all relevant information about HYPERION and It is divided in 8 parts as follows:

- ✓ ABOUT: The sub-topics included in this section were: Hyperion Vision, the concept, objectives, To whom it may concern, impact and innovation potential;
- ✓ PARTNERS: Contains the information about the partners as well as the link to their own websites;
- ✓ TEST SITES: Information and visual material for all four different pilot sites are included in this section;
- ✓ RESULTS TO DATE: Deliverables, publications and presentations are included in this section. All existing results have been uploaded to the sections, following all the steps which are included in the procedures. This is a downloadable area where anyone can find in depth information about the project's results;
- ✓ NEWSROOM: News, Newsletter, Magazines, in the Media and the Media Kit, are included in this section. News section was constantly updated with information about the project activities and results throughout the entire lifetime of the project;
- ✓ GET INVOLVED: In this section the visitor could register to receive HYPERION's newsletters. Via this section of the webpage, links to the official Twitter, Facebook and LinkedIn accounts of the project – the main social media tools used for HYPERION

were provided. The visual identity has been taken into account while creating these channels;

- ✓ LIAISONS: HYPERION collaborated with European Research and Technological Development initiatives and sister projects, participating in important working groups and events. Networking, co-organising sessions in EU conferences and preparing joint dissemination activities. All liaisons and produced communication materials are included in this section;
- ✓ CONTACT US: Direct contact to the main persons involved in the project (the project coordinator, the project manager, the communication managers and the webmaster). Using the e-mailing option, the visitor could directly communicate easily with the abovementioned partners. Moreover, all WP leaders are all mentioned in this section in order to showcase their systematic and valuable contribution and inform their audience about their involvement and expertise in the project;

Since June 2019, HYPERION's website has developed and now comprises of 36 pages. It has received 29,550 unique pageviews, and attracted 55,546 visitors. Overall, the trend in the number of pageviews has grown continuously during the project's implementation. The most traffic on the website happened the last year while there were noticed also three peaks during the second year of the project that had to do with events that happened in projects lifetime (e.g. in September 2021 HYPERION participated in many events (4th International Conference on Structural Integrity; 17th World Conference on Earthquake Engineering; 31st European Safety and Reliability Conference; 17th World Conference on Earthquake Engineering, 17WCEE); which seems that had affected HYPERION's website visits). The chart below represents the pageviews for the duration of the project and selected peaks.
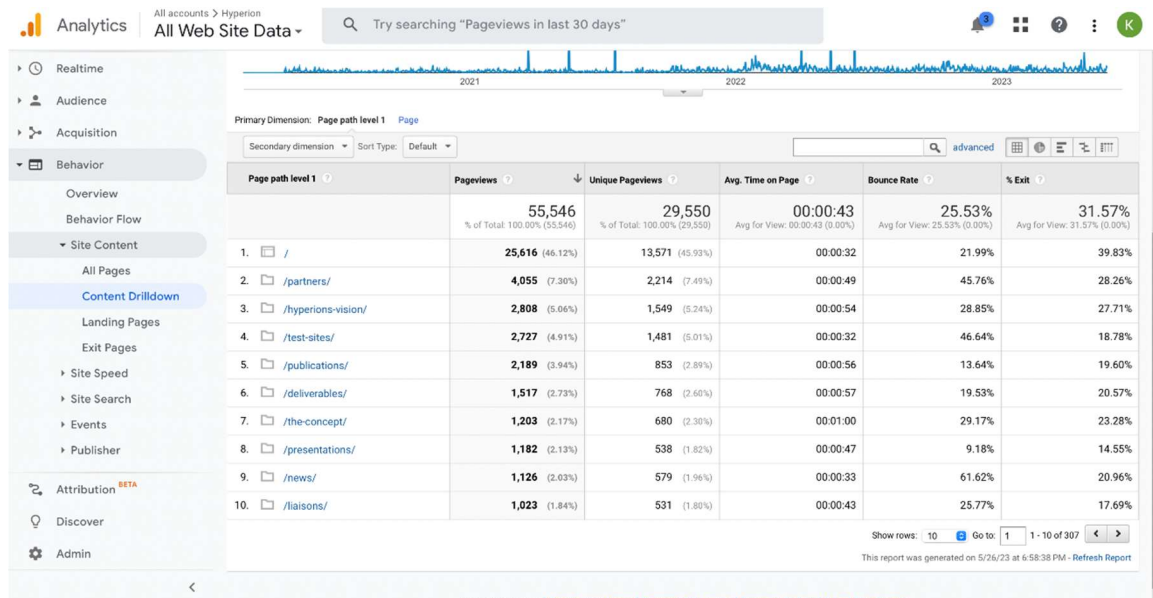
FIGURE 10: WEBSITE ANALYTICS

Visitors to the website have been found to come from Greece, Italy, Norway, Spain, France, US, UK, Austria, Germany and Cyprus; the majority of whom have come from Greece.
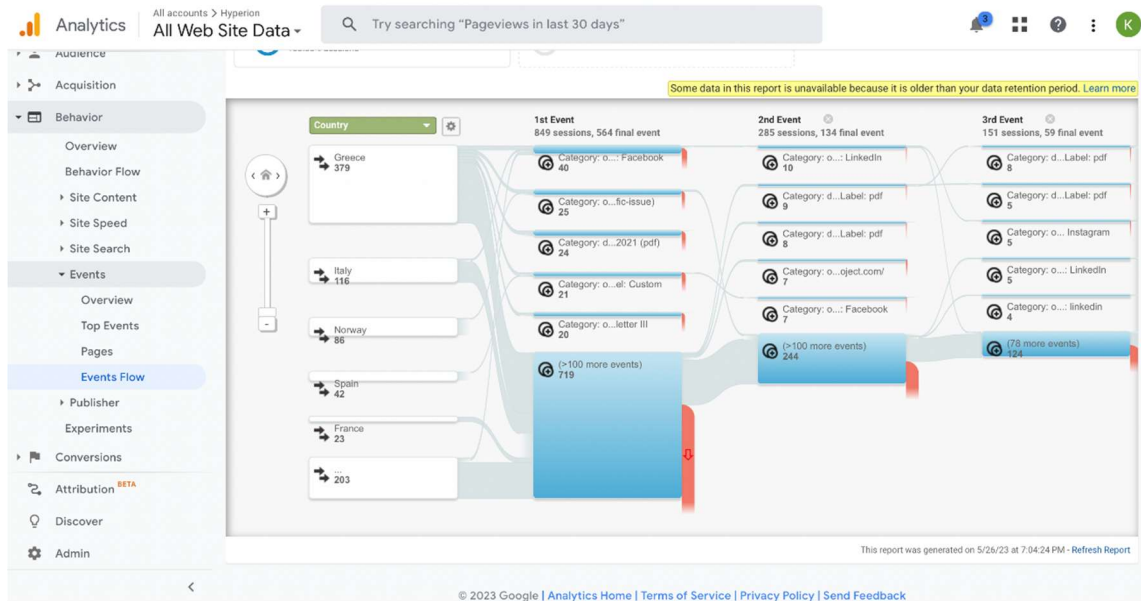
FIGURE 11: EVENTS FLOW PER COUNTRY

Entrances shows how many times the first event in a session happened on a page or screen[3]. Most of the entrances to HYPERION's website (76%) happened in the homepage of the site.

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	55,546 % of Total: 100.00% (55,546)	29,550 % of Total: 100.00% (29,550)	00:00:43 Avg for View: 00:00:43 (0.00%)	17,537 % of Total: 100.00% (17,537)	25.53% Avg for View: 25.53% (0.00%)	31.57% Avg for View: 31.57% (0.00%)	$0.00 % of Total: 0.00% ($0.00)
1. /	25,616 (46.12%)	13,571 (45.93%)	00:00:32	13,330 (76.01%)	21.99%	39.83%	$0.00 (0.00%)
2. /partners/	4,051 (7.29%)	2,211 (7.48%)	00:00:49	585 (3.34%)	45.66%	28.22%	$0.00 (0.00%)
3. /hyperions-vision/	2,805 (5.05%)	1,547 (5.24%)	00:00:54	303 (1.73%)	28.85%	27.70%	$0.00 (0.00%)
4. /test-sites/	2,723 (4.90%)	1,477 (5.00%)	00:00:32	219 (1.25%)	46.12%	18.69%	$0.00 (0.00%)
5. /publications/	2,155 (3.88%)	841 (2.85%)	00:00:56	251 (1.43%)	14.23%	19.49%	$0.00 (0.00%)
6. /deliverables/	1,517 (2.73%)	768 (2.60%)	00:00:57	122 (0.70%)	19.53%	20.57%	$0.00 (0.00%)
7. /the-concept/	1,202 (2.16%)	679 (2.30%)	00:01:00	119 (0.68%)	28.57%	23.21%	$0.00 (0.00%)
8. /presentations/	1,172 (2.11%)	533 (1.80%)	00:00:48	93 (0.53%)	9.68%	14.25%	$0.00 (0.00%)
9. /news/	1,109 (2.00%)	562 (1.90%)	00:00:33	168 (0.96%)	59.52%	20.02%	$0.00 (0.00%)
10. /contact/	955 (1.72%)	552 (1.87%)	00:00:56	154 (0.88%)	37.66%	34.87%	$0.00 (0.00%)

Show rows: 10   Go to: 1   1 - 10 of 686

This report was generated on 5/26/23 at 4:24:41 PM - Refresh Report

© 2023 Google | Analytics Home | Terms of Service | Privacy Policy | Send Feedback

FIGURE 12: WEBSITE STATISTICS

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[3] Pageviews, on the other hand, are the total number of times a given page is viewed, regardless of how the user got there

In addition, the following data give an overview of the visibility and the engagement of the viewers of the website. The highest bounce[4] arose from "partners" page and the average session duration reaches 01:33 min.
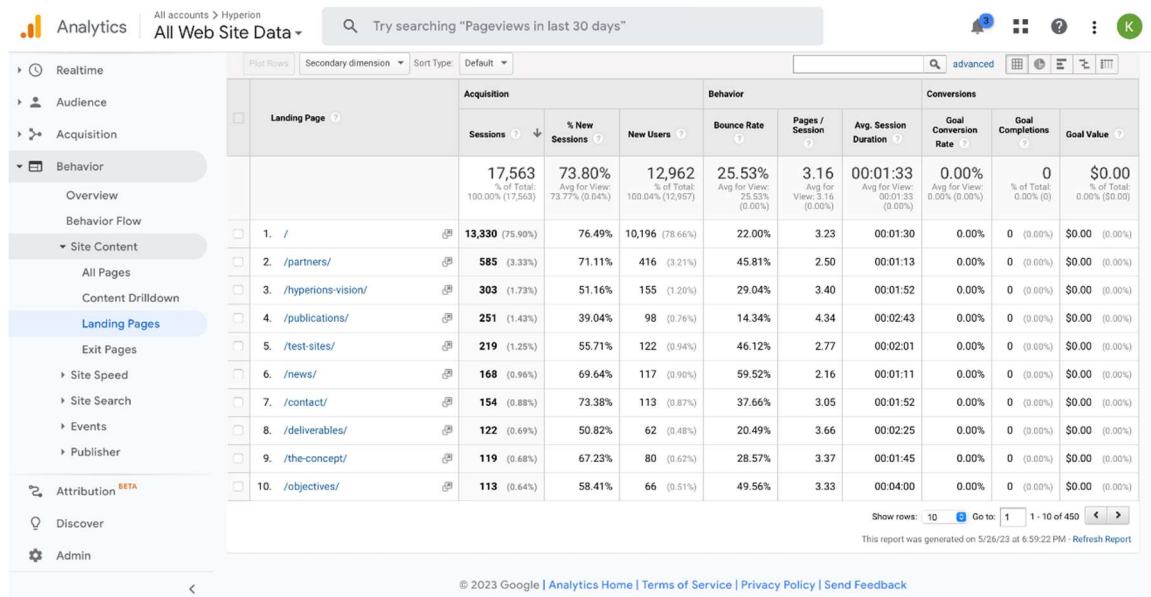
FIGURE 13: WEBSITE STATISTICS

Website statistics were provided through Google Analytics & ExactMetrics (i.e. number of sessions, unique visitors, number of pages visited, time etc.).

3.5.1.1.1   COOKIES, PRIVACY POLICY & IMPRINT

The website, following the Commission's guidelines on privacy and data protection, informed visitors about the cookies policy while non necessary cookies were not being used. The ePrivacy directive – more specifically Article 5(3) – requires prior informed consent for storage or for access to information stored on a user's terminal equipment and it was included in HYPERION's website. HYPERION's website included specific pages, on the footer, mentioning the cookies policy, privacy policy as well as project' imprint, ensuring correct flow of information to website visitors.

3.5.1.1.2   WEBSITE MAINTENANCE

Development, maintenance and content creation for HYPERION website was implemented by IEMC and ICCS. This includes uploading all HYPERION results such as public deliverables, all scientific publications (journal publications, conferences and event's presentations and posters, thesis etc) providing open access to view and download all the available content. All-important activities, announcements and events were regularly uploaded in the "news" section (updated by ICCS team with assistance from IEMC and other partners when relevant). Moreover, newsletters,

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[4] Bounce arises when a visit to a website only goes through one page before leaving the site, rather than continuing to see more pages of it.

annual magazines, press releases and press clippings as well as new communication materials were also uploaded in HYPERION's website as soon as they were available.

The website will continue to be available after the project end for a period of five years until mid of 2028; the process has been internally agreed with ICSS, which will cover the hosting and domain costs. The website will be also updated with relevant project news and publications; Moreover, HYPERION partners will continue disseminating the project's results in relevant events and conferences after the end of the project supporting the project's exploitation plan.

Press Releases and Media Coverage

HYPERION managed to gain positive and consistent coverage in the media ensuring an incredible impact on the implemented work. Getting more people thinking positively about the project and spreading its messages across to a wider audience were key prerequisites for HYPERION's communication and dissemination activities and a great way of providing the project and its assets with greater credibility.

Project's press releases were developed by ICSS, IEMC and all partners for all major events and in order to disseminate the project's key findings and results in various trusted local and European media. Partners were also responsible for translations and regional adaptations as well as to create local media contact lists with key journalists and bloggers specialised in culture, technology and science.
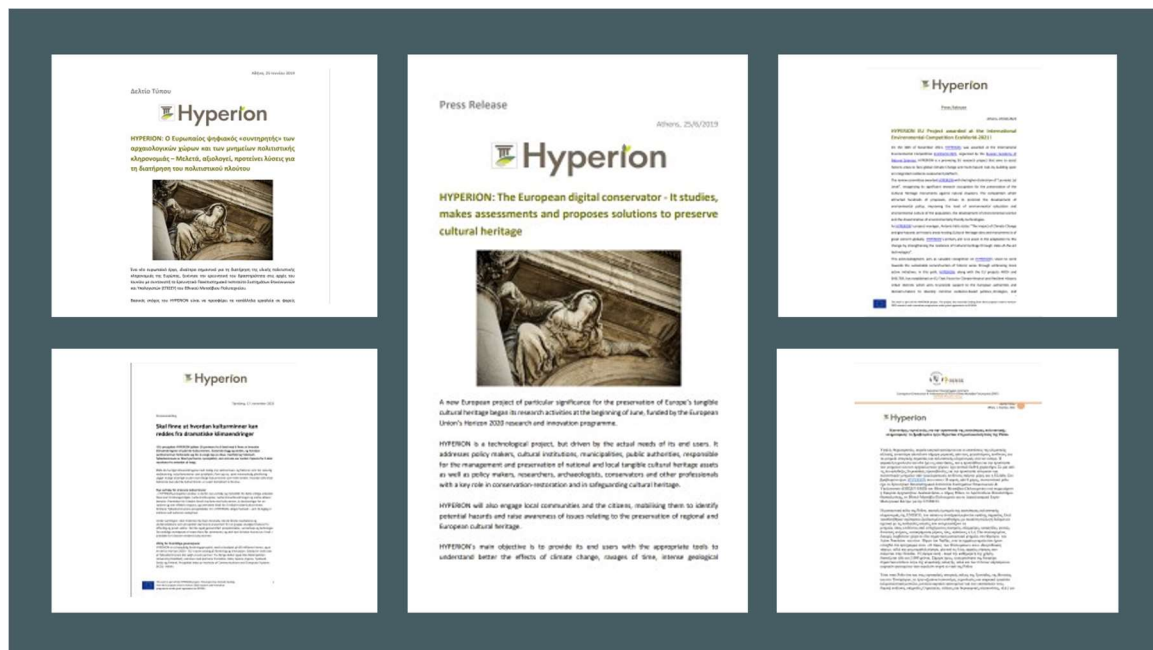

FIGURE 14: INDICATIVE PRESS RELEASES FROM PROJECT'S LIFE CIRCLE

A total of 6 press releases were written and disseminated at both the European level and the national level of the consortium partners:

- Press Release |HYPERION: The European digital conservator – It studies, makes assessments and proposes solutions to preserve cultural heritage;

- Press Release | HYPERION: Ο Ευρωπαίος ψηφιακός «συντηρητής» των αρχαιολογικών χώρων και των μνημείων πολιτιστικής κληρονομιάς – Μελετά, αξιολογεί, προτείνει λύσεις για τη διατήρηση του πολιτιστικού πλούτου;

- Press Release |HYPERION EU Project awarded at the International Environmental Competition EcoWorld-2021!;

- Press Release | Καινοτόμες τεχνολογίες για την προστασία της παγκόσμιας πολιτιστικής κληρονομιάς: το βραβευμένο έργο Hyperion στη μεσαιωνική πόλη της Ρόδου;

- Press Release | Skal finne ut hvordan kulturminner kan reddes fra dramatiske klimaendringer;

- Press Release | A Venezia il convegno Hyperion: il progetto europeo per difendere la Torre dell'Orologio in piazza San Marco dagli effetti dei cambiamenti climatici;

The consortium, always in close collaboration with the EC staff, disseminated the project vision and main results through the following means offered by the EU: Horizon the EU Research & Innovation Magazine, Heritage Research Hub & Eurisy European Association. Partners also participated in the EU public events as European Bauhaus Festival, EU Regions Week 2022 & H2020 Researchers Nights events.

Concerning European Commission dissemination network, HYPERION was disseminated in:

- CORDIS' "projects and results" service that provides: (i) "project information" based on the project's grant agreement, (ii) "report summaries" that come from the publishable summaries of periodic and final reports submitted by the project participants and approved by the project officer and (iii) "results in brief" written by CORDIS science editors based on each report summary;
- CORDIS Wire, to publish articles on the CORDIS News and Events service;

HYPERION appeared in the following media and publications:

- April 2023 | HYPERION's Final Event at Build Up platform | View clipping & View online;

- 8 April 2023 | Interview of HYPERION's Coordinator at SKAI Radio | Listen to the interview (00:23:15 – 00:32:31);

- 2 December 2022 | Tribute to HYPERION at the NRK TV (National Norwegian Broadcasting Cooperation) | View video;

- November 2022 | HYPERION at the NRK Radio (National Norwegian Radio Broadcasting Cooperation | Listen to the clipping;

- 29 November 2022 | HYPERION at the NRK TV (National Norwegian Broadcasting Cooperation | View video;

- 17 November 2022 | Skal finne ut hvordan kulturminner kan reddes fra dramatiske klimaendringer |View clipping;

- 11 November 2022 | Granada HOY - La Universidad de Granada mide el impacto del cambio climático en los monumentos más emblemáticos del mundo | View clipping

- 11 November 2022 | Volver - Hyperion, un proyecto para comprender el impacto del cambio climático sobre los edificios monumentales y su entorno |View clipping

- 18 July 2022 | Europe's Major Tourist Sites Battle Climate Change to Survive | View video;

- 15 July 2022 | Europe's major tourist sites battle climate change to survive | View clipping;

- 15 July 2022 | Europe's Major Tourist Sites Battle Climate Change to Survive | View clipping;

- 21 June 2021 | Improving Heritage Resilience: HYPERION and the Fight Against Climate Change | View clipping;

- 15 May 2022 | "Ασπίδα" στην μεσαιωνική πόλη της Ρόδου Ελεύθερος Τύπος | View clipping;

- 4 April 2022 | Το βραβευμένο έργο Hyperion στη μεσαιωνική πόλη της Ρόδου iNews | View clipping;

- 4 April 2022 | Το βραβευμένο έργο Hyperion στη μεσαιωνική πόλη της Ρόδου Epixeiro | View clipping;

- 4 April 2022 | Καινοτόμες Τεχνολογίες για την προστασία της παγκόσμιας πολιτιστικής κληρονομίας: το βραβευμένο έργο Hyperion στην μεσαιωνική πόλη της Ρόδου Dimokratiki | View clipping;

- 7 April 2022 | Η Τεχνολογία οχυρώνει τα μνημεία Newspaper "Kathimerini" | View press clipping & View online;

- 22 October 2020 | Interview of HYPERION's Coordinator, Dr. Angelos Amditis, ICCS, at the "Voice of Greece" program of the Hellenic Broadcasting Corporation (ERT), an international broadcast addressed to the Greeks of the Diaspora. | Listen to the interview;

- 23 October 2019 | Interview of HYPERION's Coordinator, Dr. Angelos Amditis, ICCS and Senior Researcher, Nikos Frangakis, ICCS, in Greek high-impact newspaper "Kathimerini" about HYPERION's innovative tools and PLUGGY social platform and their valuable impact for the protection and safeguarding of European cultural heritage https://www.kathimerini.gr| View clipping;

- 28 June 2019 | HYPERION : Ο Ευρωπαίος ψηφιακός «συντηρητής» https://www.archaiologia.gr| View clipping;

- 28 June 2019 | HYPERION : The European Digital Conservator www.archaeology.wiki | View clipping;

- 27 June 2019 | HYPERION : Ο Ευρωπαίος ψηφιακός συντηρητής των μνημείων πολιτιστικής κληρονομιάς www.archaeology.wiki | View clipping;

- 27 June 2019 | HYPERION : Ο Ευρωπαίος ψηφιακός συντηρητής των αρχαιολογικών χώρων και των μνημείων πολιτιστικής κληρονομίας www.epixeiro.gr | View clipping;

- 27 June 2019 | HYPERION: Ο Ευρωπαίος ψηφιακός «συντηρητής» των αρχαιολογικών χώρων και των μνημείων πολιτιστικής κληρονομιάς – Μελετά, αξιολογεί, προτείνει λύσεις για τη διατήρηση του πολιτιστικού πλούτου www.ictplus.gr | View clipping;

- 27 June 2019 | HYPERION: Ο Ευρωπαίος ψηφιακός «συντηρητής» των μνημείων πολιτιστικής κληρονομιάς – Μελετά, αξιολογεί, προτείνει λύσεις για τη διατήρηση του πολιτιστικού πλούτου www.madeingreece.news | View clipping;

- 26 June 2019 | HYPERION: Ο Ευρωπαίος ψηφιακός «συντηρητής» των αρχαιολογικών χώρων και των μνημείων πολιτιστικής κληρονομιάς – Μελετά, αξιολογεί, προτείνει λύσεις για τη διατήρηση του πολιτιστικού πλούτου www.newslink.gr | View clipping;

- 25 June 2019 | Ένας ψηφιακός «συντηρητής» αρχαιολογικών χώρων και μνημείων πολιτιστικής κληρονομιάς από το ΕΜΠ m.popaganda.gr | View clipping;

FIGURE 15: TRIBUTE TO HYPERION AT THE NRK TV (NATIONAL NORWEGIAN BROADCASTING COOPERATION) | 2 DECEMBER 2022

In the following table one can see the reached impact per dissemination medium by the end of the project.

Medium	Target Group	Geographical Outreach	Impact reached
Press clippings to newspapers/ magazines (online & print)	All	Local/National	27
Presentations of project results in media offered by EU	All	European	4
TV / radio presentation	All	Local/National	4 radio interviews \ 1 TV interview

Communication and dissemination material

The visual identity (logo and style) of the project successfully helped external audience to easily identify HYPERION and contributed to the project visibility by providing a clear identity. All the communication and dissemination tools (project website, Twitter, LinkedIn, Facebook & Instagram pages), materials (leaflets, presentations, posters, etc.) and deliverables employed the visual identity developed for the project, guaranteeing a professional and consistent look.

The produced communication materials are the following:

✓ A Project leaflet, to provide our audiences with an attractive and written project overview and summary of the main project objectives and results which was translated in 4 languages;
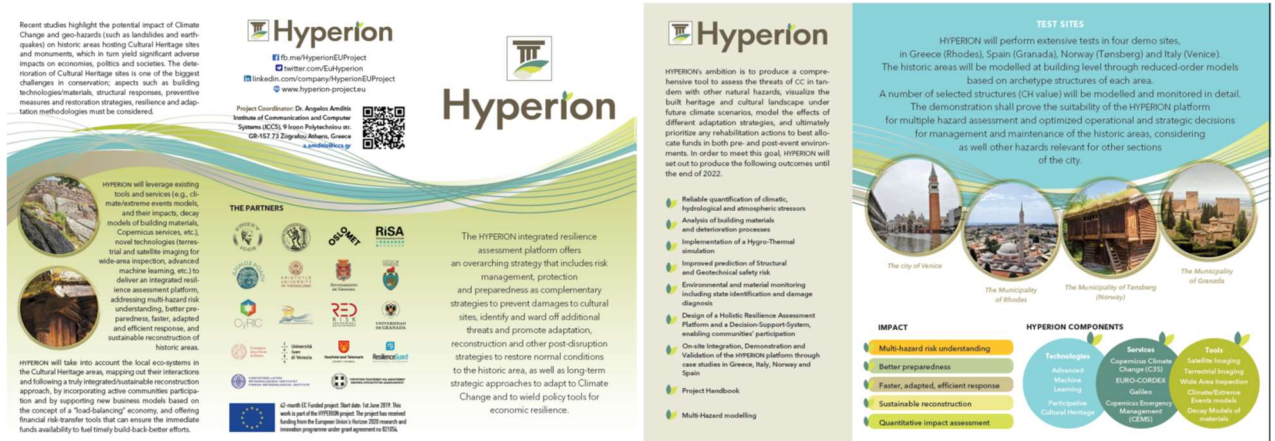
FIGURE 16: PROJECT'S LEAFLET

✓ A Rollup Banner and several Posters to display the project's visual identity and provide a particularly practical tool with which to promote HYPERION and deliver its assets, drawing the attention of the audiences during the different events. HYPERION's General Poster was translated in 4 languages while two more posters were created from NTUA and UNIPD to assist more specific needs. All materials are available here.

FIGURE 17: ROLL UP BANNER
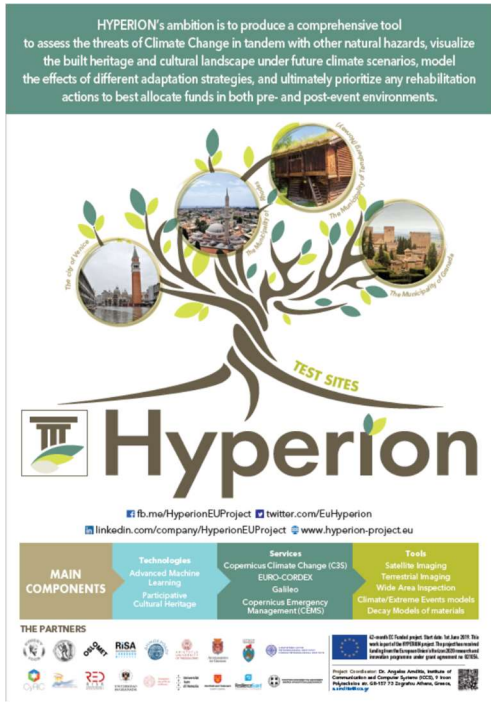
FIGURE 18: PROJECT'S GENERAL POSTER

FIGURE 19: HYPERION'S POSTER CREATED BY NTUA

FIGURE 20: HYPERION'S ITALIAN POSTER CREATED BY UNPID

✓ A Project General Presentation, describing the objectives and the main achieved results for presenting the project in different forums, such as internal presentations inside of the partners, presentations at schools/universities, visits with clients, etc. The General Presentation was also translated in Greek language for communication purposes. Both Presentations are available on HYPERION's website here.

FIGURE 21: HYPERION'S OFFICIAL PRESENTATION

✓ Four Physical Banners, to communicate HYPERION's community engagement application tool in the pilot sites. The Banners were placed in all pilot sites (Rhodes, Venice, Granada and Tonsberg) in order to inform visitors about the test research activities and engage them to download HYPERION's application.

FIGURE 22: HYPERION'S PHYSICAL BANNERS PLACED ON THE FOUR PILOT SITES

✓ Project related videos, to communicate the project's vision, objectives and results. Specifically, they were produced 3 videos (1 animated, 1 Pilot Sites video - extended version, 1 Pilot Sites - short version) as well as 4 other videos for the 2 pilot sites and for HYPERION's final event (1 video produced by the European organization Eurisy for

the pilot site of Rhodes, 1 video produced by UNIPD on the pilot site of Venice / 1 video produced during Horizon Booster progamme with the sister projects ARCH & SHELTER on European Task Force. These videos are accessible from the website and uploaded in YouTube.
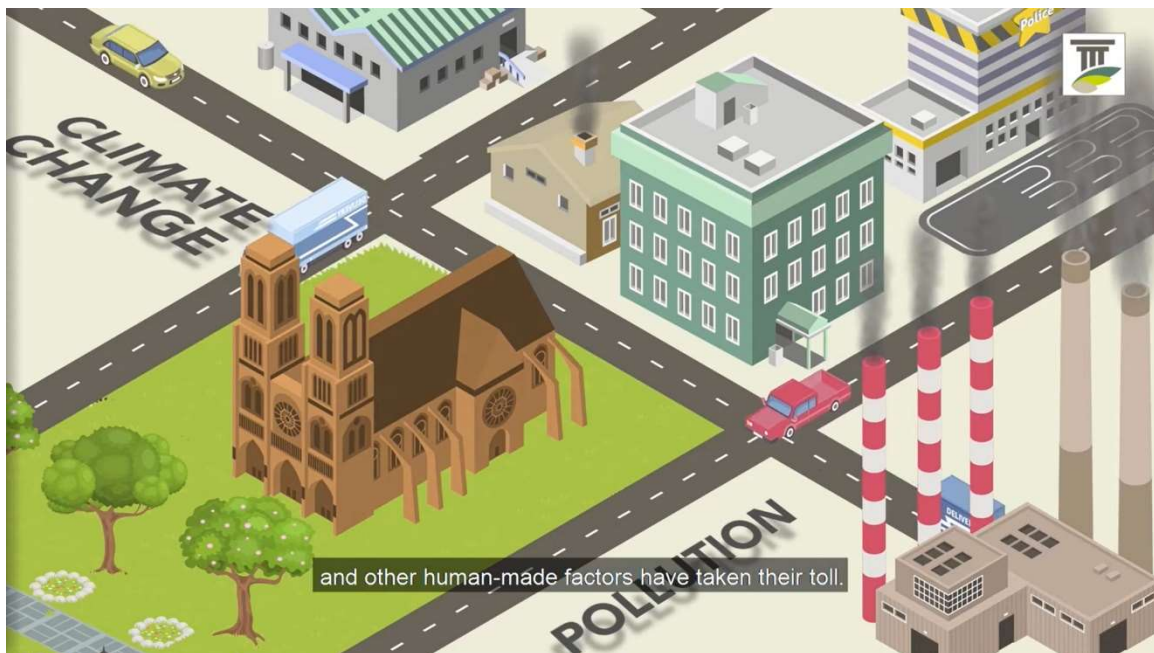
FIGURE 23: HYPERION'S ANIMATED VIDEO

Newsletters

HYPERION has published **7+1 newsletters[5]** in total in order to raise awareness on its activities and communicate its outcomes and learnings.

HYPERION's newsletters were disseminated via project's website, social media and direct mailing to a dedicated list of recipients whom were subscribed through various sections on the project's website.

Moreover, partner recipients of the newsletter were also encouraged to spread HYPERION newsletter to their own networks, in order to raise the number of subscribers and generate word-of-mouth referrals.

The content of each newsletter was agreed collaboratively between the WP leader, the coordinator and the team in charge of writing the corresponding issue.

Experts and professionals from different fields (science, cultural heritage, etc.) who could contribute to raise awareness on HYPERION, were also invited to contribute to the newsletters.

All HYPERION newsletters can be found here.

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[5] 1 newsletter was a short version that served as awareness raising and invitation for the forthcoming final event of HYPERION

Newsletter

Register to HYPERION news!

- Newsletter I
- Newsletter II
- Newsletter III
- Newsletter IV (Scientific-issue)
- Newsletter V
- Newsletter VI
- Newsletter VII – Invitation to HYPERION's Final Event

You may wish to join HYPERION to follow news of project activities and developments, outputs and events. This can be done simply, via subscribing on our mailing list here.

FIGURE 24: NEWSLETTER AS APPEARING IN THE HYPERION WEBSITE

FIGURE 25: AN EXAMPLE OF HYPERION'S NEWSLETTER

HYPERION's newsletters were received by 123 subscribers while the latest issue gathered 59.3% opening rate and 12.1% clicks.

FIGURE 26: HYPERION'S NEWSLETTER INDICATIVE PERFORMANCE

Annual magazines

Since M12, annual magazines were prepared once a year and distributed to various contacts, providing valuable information on HYPERION's developments, key findings, forthcoming events and other important news in the fields related to the project. HYPERION's Annual Magazine design was created using the project's visual identity and distinctive colour palette, ensuring a consistent project image and contemporary design in order to grab readers attention and facilitate readership (extended reference on Annual Magazines on D9.9).

The annual magazines were disseminated via project's website and social media channels. The main objective was to increase awareness and understanding of HYPERION's assets and fields of relevance, build new relationships as well as maintain regular contact with HYPERION's key target audiences. All HYPERION annual magazines are available in project's website here.
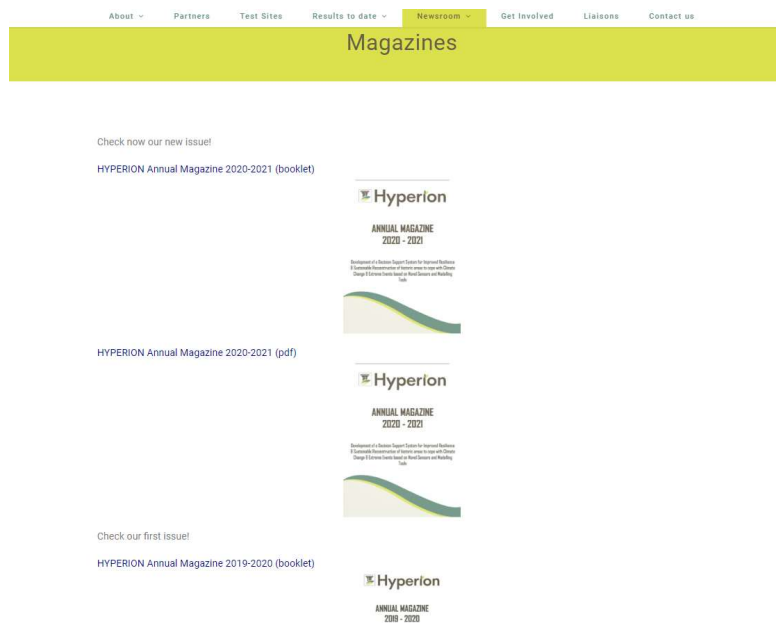
FIGURE 27: ANNUAL MAGAZINES AS POSTED ON HYPERION WEBSITE

Publications in scientific journals

During HYPERION's course, scientific publications were used to effectively disseminate high-level project information and results and to attract the interest of representatives of various target

groups. The research partners published HYPERION's research results and important findings in indexed peer-reviewed journals, addressed to academic staff as well as experts/ professionals. Research partners within the consortium, when appropriate, also disseminated HYPERION's developments and results in scientific journals or magazines of sectors and industries related to the project outcomes, always taking into account confidentiality and IPR protection aspects.

Significant efforts were made by academic partners to publish papers in well-respected and highly rated peer-reviewed journals. Partners also secured Open Access (OA) to all interested parties, mainly through the project website but also through respective OA repository of Zenodo (and in the beginning of the project through ResearchGate).
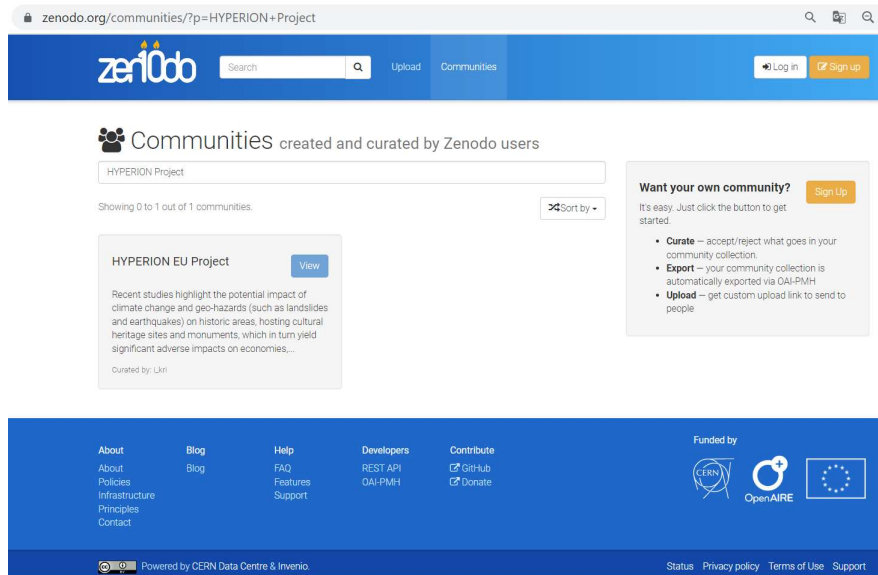
FIGURE 28: HYPERION COMMUNITY IN ZENODO

HYPERION consortium established an editorial committee for project publications such as reports, training materials and other literature.

The membership of the committee was mainly convened from the project partnership. Material published by the project are made available under a Creative Commons Attribution, Share-Alike, Non-Commercial (CC BY-SA) license in Zenodo.

All journal publications are available to view or download through HYPERION's website here.

Scientific publications by partners concerning project work in academic journals were strongly encouraged. Standard academic good practice concerning citation of authors was anticipated with the proviso that authors should:

a) mention EU support for the work;

b) notify the consortium of the publication;

c) provide a digital copy to the consortium, to be made available on the website (if the publisher agrees) or a link provided to an archive copy elsewhere; or to be kept in storage, if self-archiving is not allowed;

A full list of the publications can be found in **Annex 2** and it includes the updated list of scientific publications selected to promote the project. During the last 48 months HYPERION has been participating in these 44 different publications. The scientific publications far exceeded the original goal that was set in the initial planning of the project.

Other publications

HYPERION's developments were also disseminated in other relevant publications:

- Chapter in book - Amirhosein Shabani, Agon Ademi Mahdi Kioumarsi, "Structural Model Updating a Historical Stone Masonry Tower in Tønsberg, Norway" https://link.springer.com/chapter/10.1007/978-3-030-90788-4_45, ISBN: 978-3-030-90788-4, Protection of Historical Constructions, Vol. 209, Springer Swiss, 4-Dec-2021, p. 576-585;
- Thesis/dissertation – Angelos Koutanis, "Design and Implementation of DAG-based workflows. Application of the interdependencies according to the existing data and tasks for an H2020 project", http://dx.doi.org/10.26265/polynoe-1296, Polynoe, UniWA, ATHENS Oct-21;

3.5.2 Two-way Communication Channels

Social Media Strategy

HYPERION project team created and followed a concrete social media strategy aiming at:

- Identifying and approaching persons and organizations already active in fields related to the project activities (e.g. professionals in LinkedIn);
- Get project/ service well known through social media and call for "Action";
- Spreading news/content about the project: project content, activities, news, results etc.;
- Engaging social media followers, preferably by directing them to HYPERION website;
- Creating interactive forums at European and national scale (external stakeholders).

Actions that were performed in this context included:

- Identifying and approaching the relevant persons and organizations;
- Get enlisted in relevant LinkedIn Professional Groups;
- Regular social media posts (e.g. 1 per week in each media) aiming at informing or initiating discussions/debates/feedback;
- Using already existing accounts with relevant followers/members;

HYPERION used the five most popular social networks: **Facebook, Instagram, Twitter, LinkedIn** and **YouTube**.

Measures used to grow Social Media Accounts

The strategy for growing Social Media Accounts was as follows:
- First step was to map individual personal contacts as well as organisations with a potential interest in the project (European sites: EC Network);

- Secondly to invite these contacts to connect with the project either through the social medias or through personal messages. This included the stakeholders involved in the project and press distribution lists;
- And finally in order to maintain the audience and keep the accounts interactive, it was important to qualify and optimize the discussions and information provided and to do regularly postings. For this purpose, responsibilities have been distributed on discussions, posts, articles, etc. and particularly as regards the LinkedIn account.

Postings - keeping the social media working and interactive

The regular posts on HYPERION's Social Media channels aimed at:
- ✓ Promoting the website and the Database;
- ✓ Linking with contents at the website: articles, new content, events etc.;
- ✓ Reporting from project events (consortium meetings, workshops etc. – with photos and comments);
- ✓ Informing on important progress / results / success stories of the Project;
- ✓ Promoting public project publications;
- ✓ Reporting on participation in EU events & congresses and any other media activities of the project (radio broadcasts, TV broadcasts, etc.);
- ✓ Informing of any partnership of the project;
- ✓ Sharing information on other associated events (EU, other projects etc.);
- ✓ Sharing relevant contents from other sites (projects, EU organisations, local organisations, initiatives etc.);
- ✓ Linking to interesting articles related to the project theme, etc. and beginning a thread/conversation with the social media connections (sharing/retweeting);
- ✓ LinkedIn particularly: Professional articles from the academic partners.

Social media Accounts: Twitter, LinkedIn, Facebook, Instagram and YouTube

In order to consistently and effectively communicate with HYPERION's multiple, often diverse targeted audiences and create social links with them, succeeding wide awareness on project's activities and developments, dedicated HYPERION social media accounts have been created and linked to HYPERION's website.

As mentioned earlier, HYPERION's consortium decided to focus on five Social Media channels:

- ✓ A *Facebook account* (https://www.facebook.com/HyperionEUProject/) that is considered by far the most popular social media channel in HYPERION consortium's countries;
- ✓ A *Twitter account* (https://twitter.com/EuHyperion), which was used as a direct communication instrument for reaching the general public and following Horizon 2020 communication and dissemination campaigns launched by the European Commission. The social media platforms the Commission and its agencies use is employed to expand project audience, which is accomplished by adding #H2020 and tagging @EU_H2020 to HYPERION tweets;
- ✓ A *LinkedIn account* (https://www.linkedin.com/company/hyperioneuproject) page was also used for reaching stakeholders and industry professionals. Official LinkedIn groups were joined to raise awareness among the different project topics professionals and industryl
- ✓ During the project's lifetime an *Instagram channel* and a *YouTube channel* were also created and used. The accounts can be reached through the following links:

and https://www.instagram.com/hyperion_eu_project/ respectively.

The HYPERION website had direct access to these social networks by clicking over the icons situated on a visible part of the website. In this way, it was rather easy for every website visitor to access and subscribe to HYPERION's social media channels.

3.5.2.1.1 FACEBOOK

Since May 20219, HYPERION's page on Facebook has generated **534 page likes and 557 followers** while **147 posts** were created and shared with the public. Facebook is a widely famous social media network and has been regularly used during the project's course to share different content from HYPERION's website. Selected previews of HYPERION Facebook Account and shared content can be found in the following figures:

FIGURE 29: FACEBOOK PAGE – HEADER

FIGURE 30: EXAMPLE OF HYPERION'S FACEBOOK PAGE CONTENT

By seeing the last 28 days statistics the reach of the posts even if it is indicative, it shows that the posts reached 628 people while 179 engaged with them and 49 reacted to them.
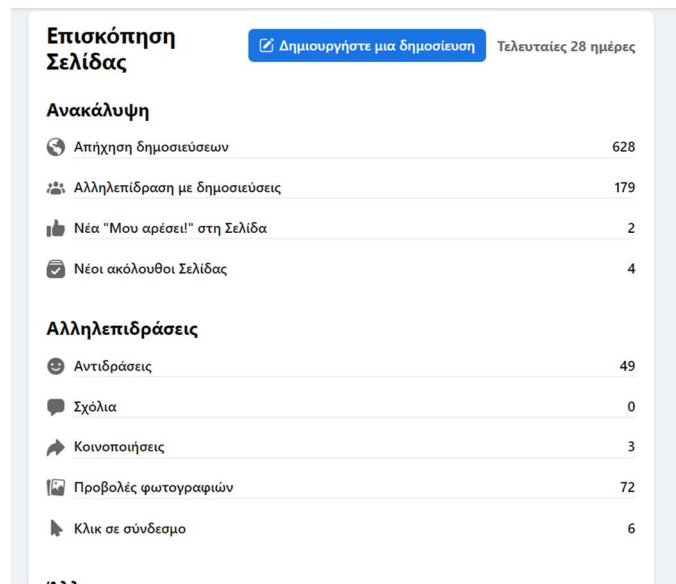
FIGURE 31: OVERVIEW OF FACEBOOK STATISTICS FOR THE LAST 28 DAYS

Due to the organization of HYPERION's Final Training & Demonstration Event, the engagement in the Facebook account was higher the last 90 days compared to 90 days prior as shown in the relevant figures.
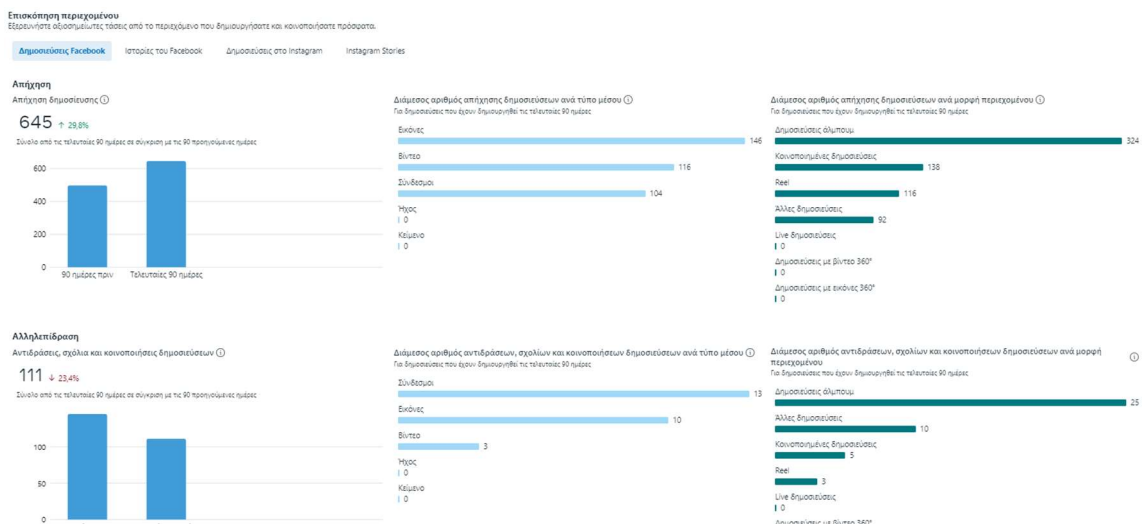
FIGURE 32: CONTENT OVERVIEW OF HYPERION FACEBOOK PAGE

Analyzing the demographics of HYPERION Facebook Users, it is evident that the majority of the users that follow HYPERION are between 25-44 years old, while there is not a significant difference in the gender of the followers (48,3% women and 51.7% men).

47
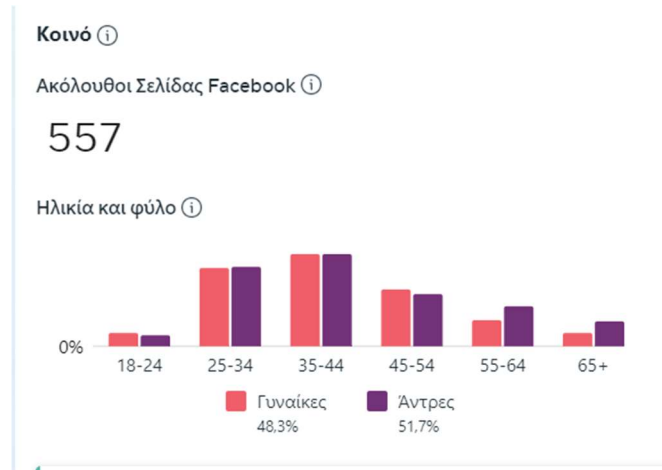
FIGURE 33: FACEBOOK FOLLOWERS DISTRIBUTION BY AGE AND GENDER (48,3% WOMEN AND 51.7% MEN)

3.5.2.1.2   TWITTER

For HYPERION audience, Twitter social channel was chosen as its scope was aligned with the project's internal objectives. During the project, diverse audiences needed to be reached, from different countries, industrial sectors and research areas, Twitter allowed us to impact, engage and interact with all them by this channel. In this case, Twitter was used to grab attention and then to redirect all this audience to the website which was HYPERION's main showcase portal.
From May 2019 to May 2023, HYPERION **has published 517 tweets** and has reached **361 followers**.

FIGURE 34: TWITTER PAGE

Indicative monthly activity overview of tweets in HYPERION account follows in the Figures below:
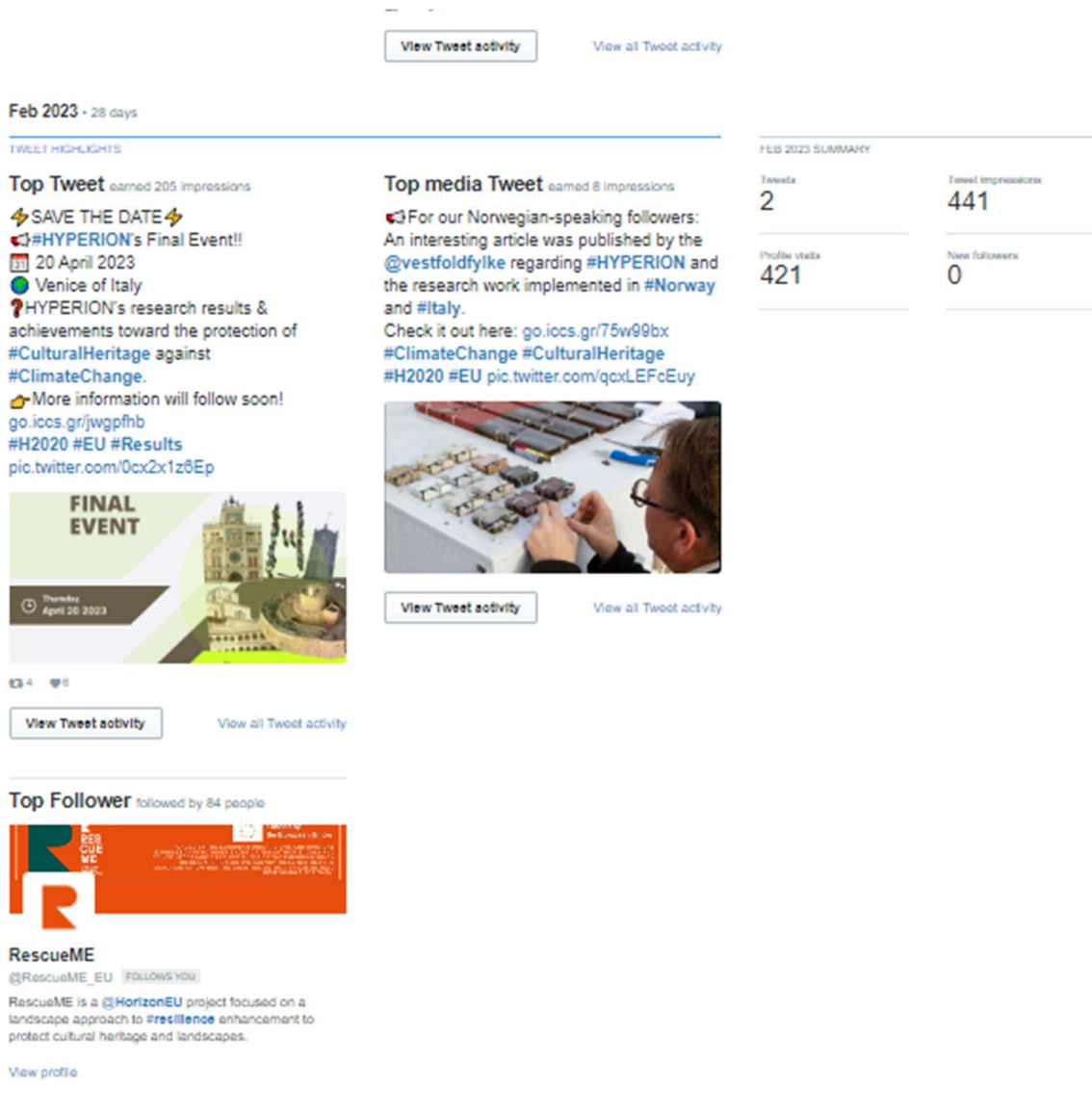
FIGURE 35: HYPERION'S TWEETS ACTIVITY IN FEBRUARY 2023

Mar 2023 · 31 days

Top Tweet earned 201 impressions

#EU project #HYPERION invites you to its final event!
📅20 April 2023
🕘9:00-17:00
📍Palazzo Cavalli Franchetti | Instituto Veneto di Scienze Lettere ed Arti in Venice, Italy
👉Make your registration today: go.iccs.gr/8ifthgd

#CulturalHeritage #ClimateChange #H2020 pic.twitter.com/k4kPJVdA50

MAR 2023 SUMMARY

Tweets	Tweet impressions
3	477
Profile visits	Mentions
398	4
New followers	
4	

Top mention earned 13 engagements

I-SENSE GROUP/ ICCS
@ISENSE_GROUP · Mar 24

❓ Can technology support the #preservation of #CulturalHeritage monuments? Learn the answer & many more at @EuHyperion Final Event!
📅20 April
🕘9.00 -17.00
📍Venice Italy
👉Make your registration for free today! lnkd.in/deGbqjGH

#H2020 #ResearchResults #ISENSEResearch pic.twitter.com/OrtgexT43m

Top Follower followed by 447 people

Kai Salas Rossenbach
@KSRInrap FOLLOWS YOU

Archaeologist/ Strategic programmes & International affairs/ French National Institute for Preventive Archaeological Research/

View profile

View Tweet

Top media Tweet earned 133 impressions

Today is the day to celebrate & recognize all of the incredible women working in #technology, in #science, and in #research! Those driving #innovation & those fighting to create a fairer tech industry for Women! Happy International Women's Day to all of you. You make us proud! pic.twitter.com/tBWKv6SeBk

FIGURE 36: HYPERION'S TWEETS ACTIVITY IN MARCH 2023
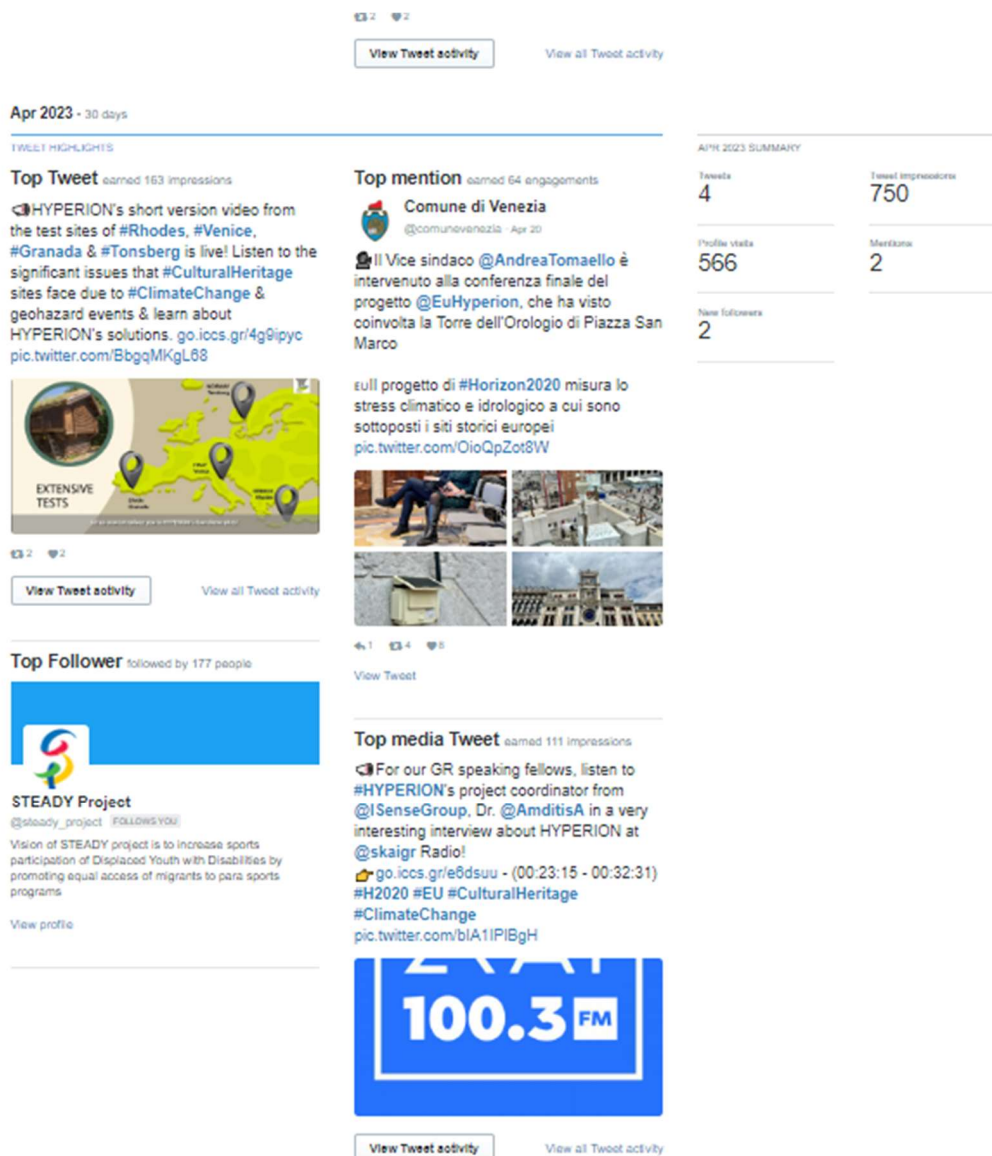
FIGURE 37: HYPERION'S TWEETS ACTIVITY IN APRIL 2023

3.5.2.1.3 LINKEDIN

To better engage with international practitioners´ community, HYPERION has created and used a company page at the LinkedIn that can be accessed in the following link https://www.linkedin.com/company/hyperioneuproject.

The goal of the LinkedIn page was to go beyond disseminating HYPERION project and to position a sustainable brand in the emerging market of climate services and connect with industrial and urban practitioners. On HYPERION's LinkedIn account, relevant third parties' contributions were taken-up and redistributed with genuine comments as well as editorial content from the outbound website was promoted.

By May 2023, the LinkedIn page of HYPERION Project is followed by **321 followers** and it counts **132 posts**.
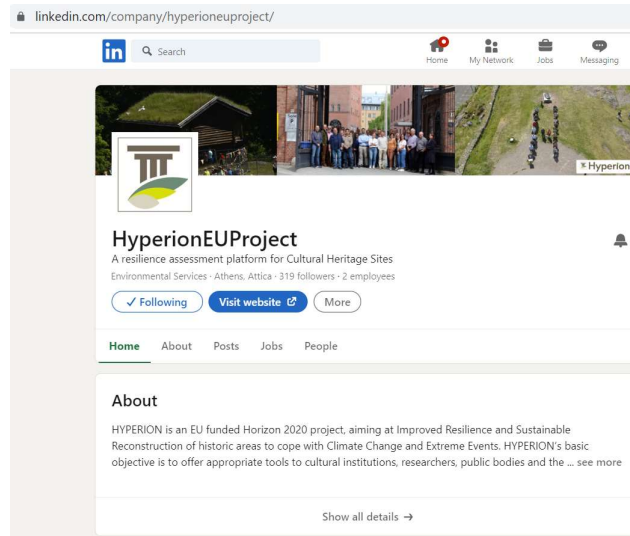
FIGURE 38: HYPERION LINKEDIN PAGE

3.5.2.1.4 INSTAGRAM

HYPERION Project has created and used Instagram social media channel to attract a younger audience and inform and engage them on HYPERION's activities. In May 2023, HYPERION's Instagram Account counts **221 followers** while the **122 posts** have been created and shared. Moreover, Instagram stories were shared during prominent events such as HYPERION's Final Event, European Bauhaus Festival, HYPERION Stakeholders Training & Demo Event in Granada etc.

HYPERION's Instagram Account can be accessed in the following link: https://www.instagram.com/hyperion_eu_project/
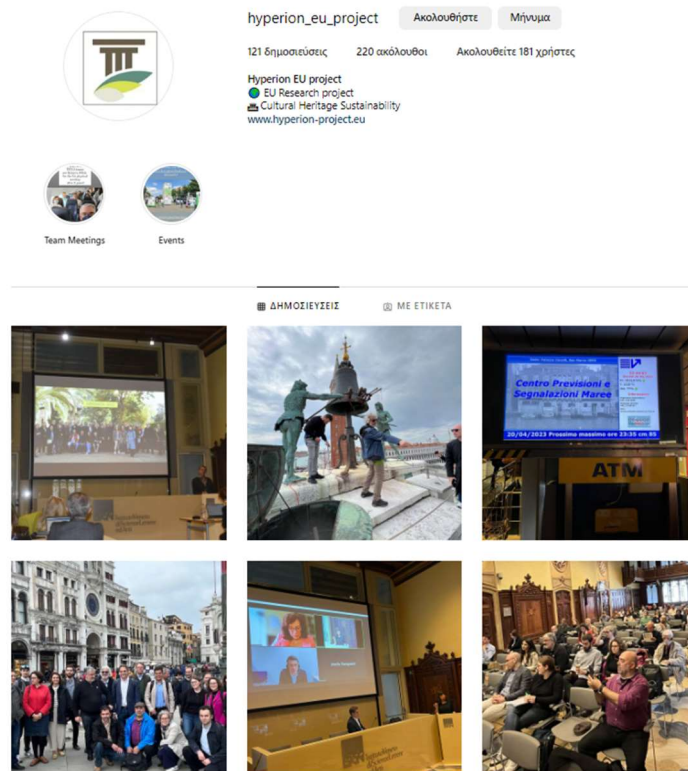
FIGURE 39: HYPERION INSTAGRAM PAGE

FIGURE 40: EXAMPLE OF HYPERION'S INSTAGRAM STORIES

The visits in Instagram page of HYPERION increased the last 3 months when results of the project were more actively disseminated. In the following figure one can see the engagement and the visits in Instagram page through the time of the project.
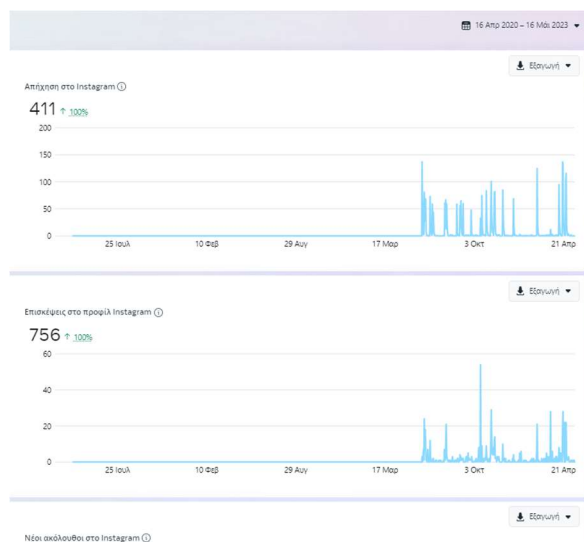
FIGURE 41: ENGAGEMENT (TOP) AND VISITS (UNDER) OF HYPERION INSTAGRAM PAGE THROUGH THE TIME

3.5.2.1.5   YOUTUBE

HYPERION's YouTube channel was used as a secondary place to redirect the audience though it was rather important in disseminating project's results.

In this platform, visitors could find and watch all the produced project videos. By May 2023, HYPERION's YouTube Channel has 33 subscribers and it contains 3 videos. HYPERION's YouTube Channel can be reached through the following link: https://www.youtube.com/@hyperioneuproject1490.
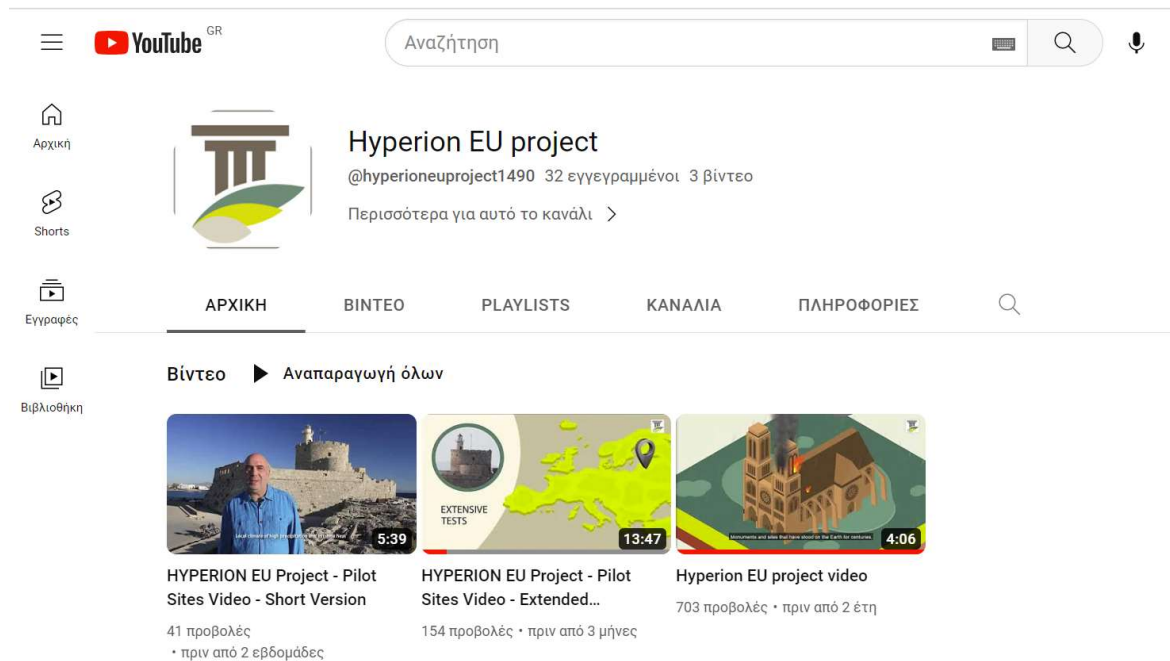
FIGURE 42: HYPERION YOUTUBE CHANNEL

For each of the videos uploaded on HYPERION's YouTube channel the following statistics showcase the engagement and the dissemination results:

The animated video was viewed 726 times with a pick in the first days of its launch and in July 2022 around the period of the 4th Plenary Meeting. It generated 964 Impressions which means that YouTube was recommending the video content, or at least thumbnail images, to YouTube users – a.k.a potential viewers, 964 times. The video was published on 27th October 2020.
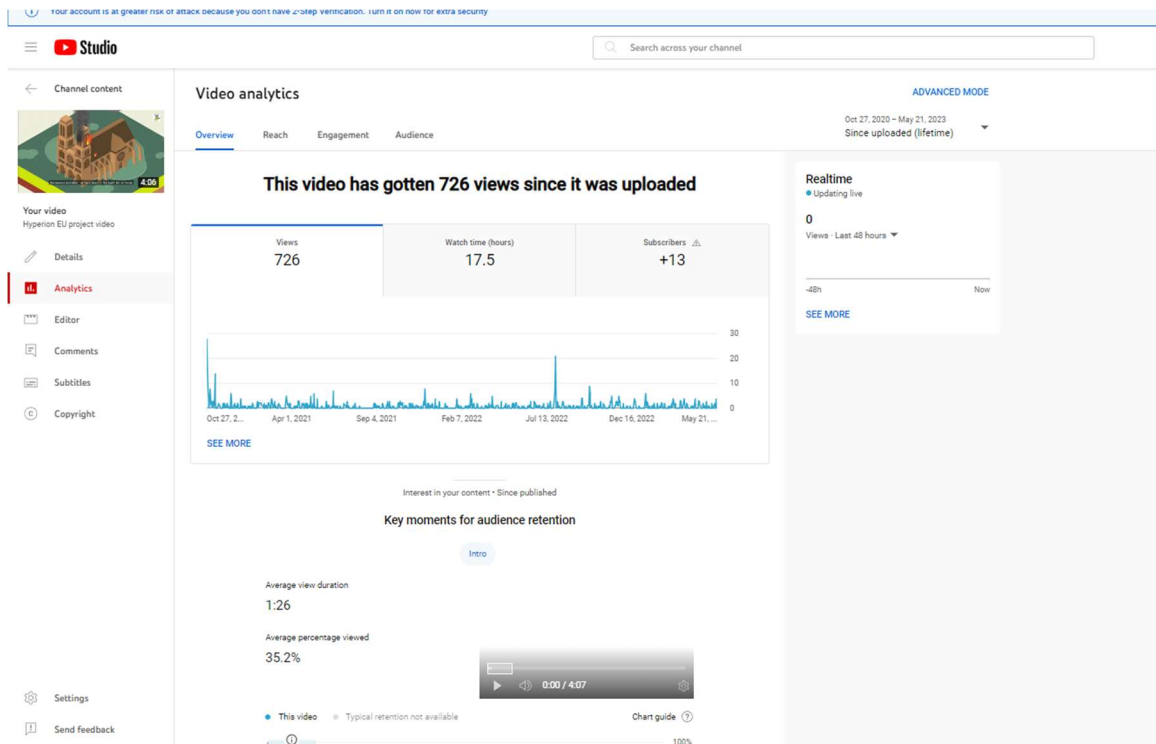
FIGURE 43: VIEWS OF THE ANIMATED VIDEO
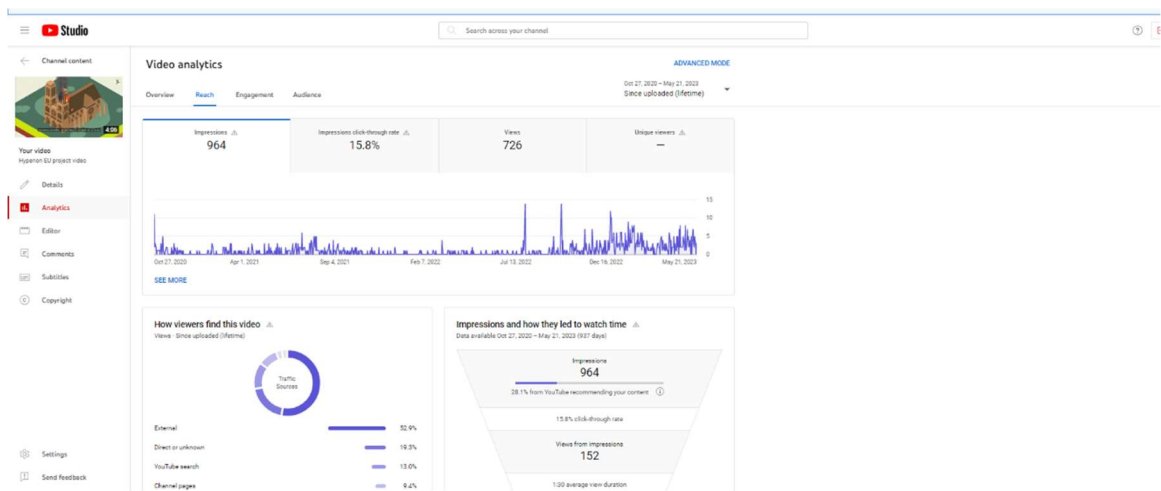
FIGURE 44:VIDEO ANALYTICS OF ANIMATED VIDEO

The HYPERION EU Project - Pilot Sites Video - Short Version was uploaded in HYPERION's YouTube Channel were uploaded on 4th April 2023 and until today it was viewed 58 times (52 unique viewers) having generated 91 Impressions
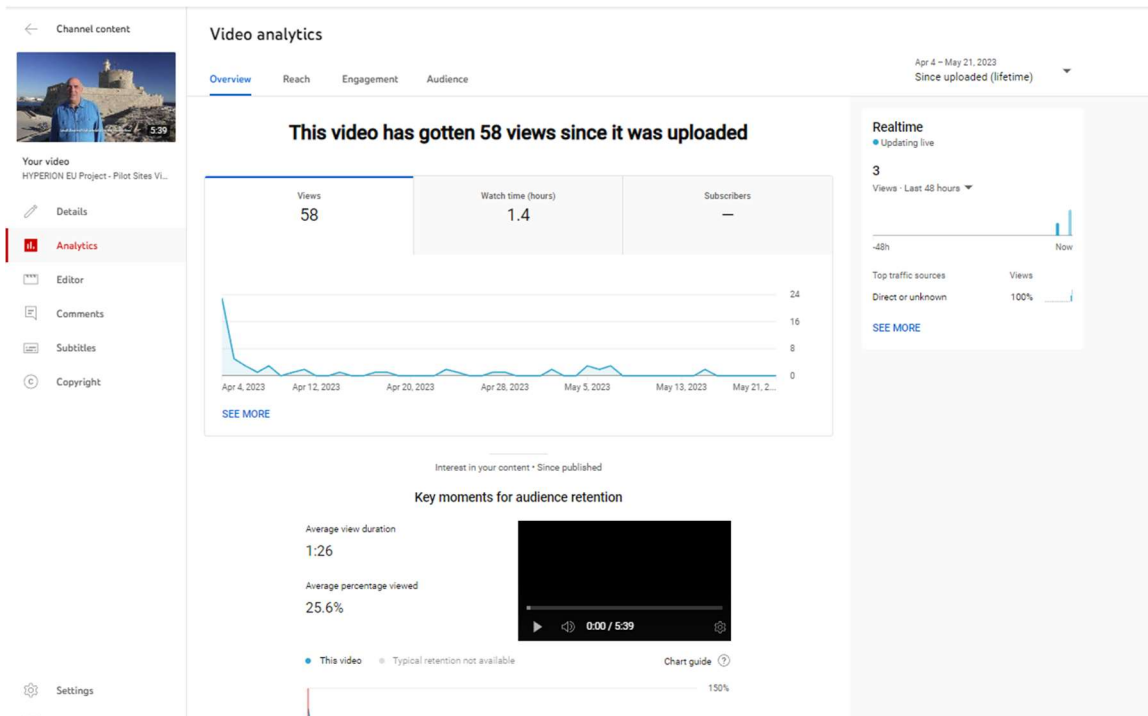
FIGURE 45: VIEWS OF THE SHORT VIDEO
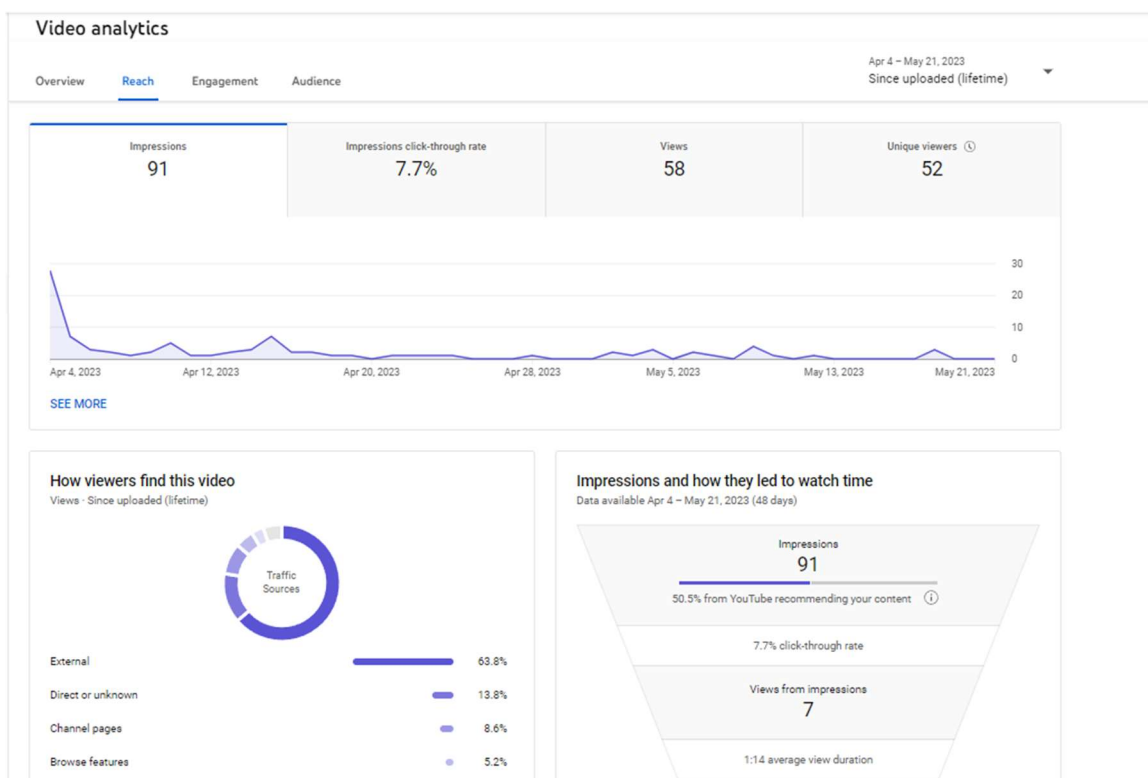
FIGURE 46: VIDEO ANALYTICS OF THE SHORT VIDEO

The extended version of the video about the Pilot Sites was launched on 22nd December 2022 and has gathered 180 views and 614 Impressions.
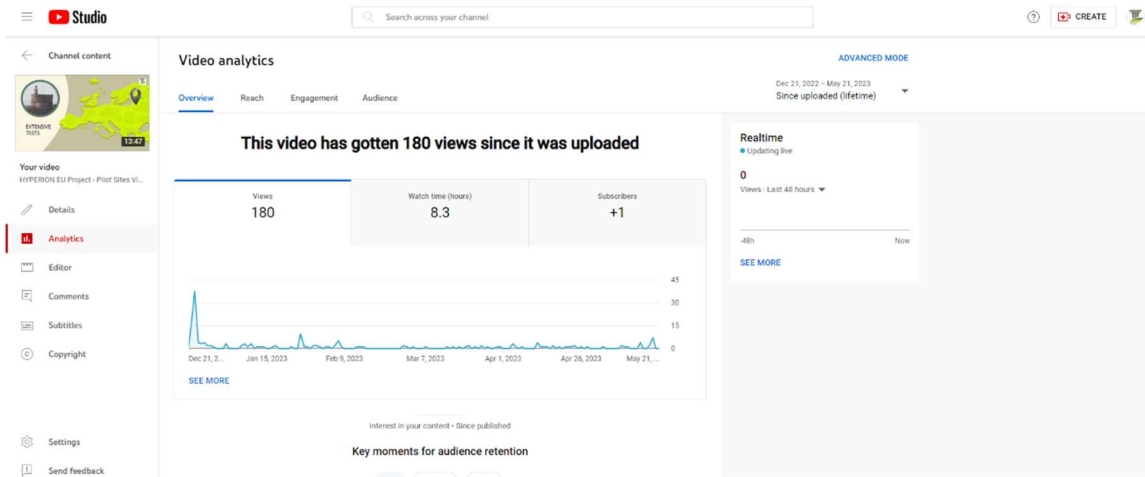
FIGURE 47:VIEWS OF EXTENDED VIDEO OF PILOT SITES
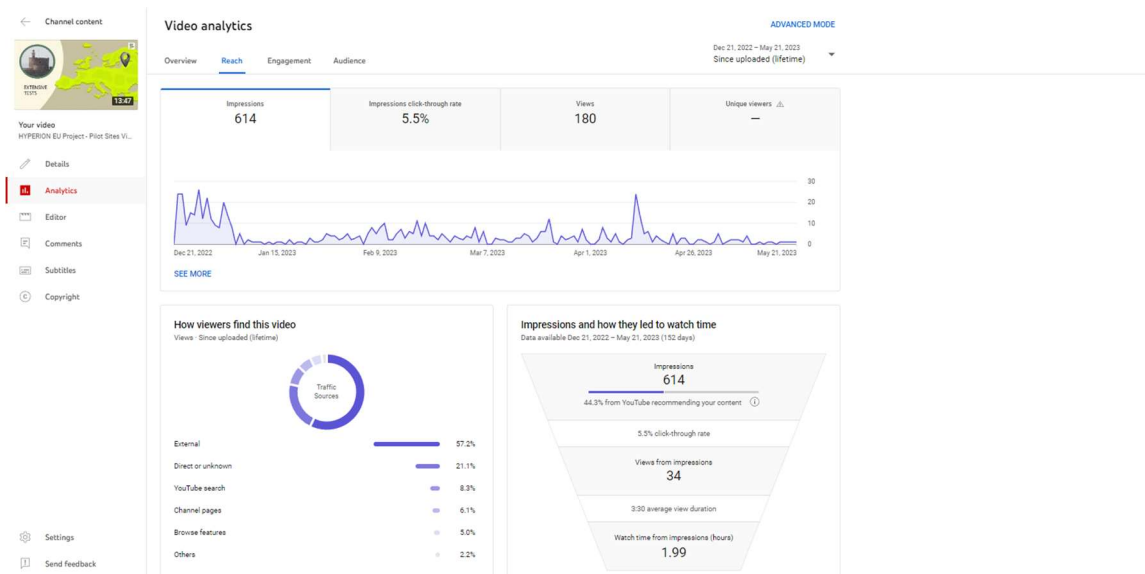
FIGURE 48: VIDEO ANALYTICS OF EXTENDED VIDEO OF PILOT SITES

Social Media Accounts Indicators

In order to successfully fulfil the communication and dissemination objectives the following performance indicators have been set on HYPERION's DoA before the beginning of the project. As it become evident the project has managed to reach and, in some cases, surpass the predefined social media KPIs. The results can be found in the following table:

TABLE 4: SOCIAL MEDIA INDICATORS (RETRIEVED ON 29/5/2023)

Medium	Target Group	Geographical Outreach	Success – Impact	Target reached
LinkedIn	All	International	200 members	321 members
Twitter	All	International	200 members	361 followers
Facebook	All	International	N/A	534 likes

Medium	Target Group	Geographical Outreach	Success – Impact	Target reached
Instagram	All	International	N/A	221 followers
YouTube	All	International	N/A	33
All social media accounts (Facebook, Instagram, Twitter, and LinkedIn)	All	International	150 posts/year = 525 posts total	951 posts and 3 video posts in total

Statistics were collected from all social media accounts (Facebook, Twitter, Instagram and LinkedIn) and followers, members, outreach of posts (e.g. number of persons reached), video plays etc. were also counted regularly.

Overview of Social Media Accounts

As for local dissemination through social media it has been decided to use existing social media accounts hosted by the project partners in those cases where new accounts are estimated to be not effective, as use of existing accounts with many followers will secure a higher outreach. The table below indicates indicative current social media accounts created within the project and *indicative* local social media accounts that were also used occasionally to promote the project.

TABLE 5: SOCIAL MEDIA ACCOUNTS FOR PROGRAM PROMOTION

Type	Country	Host	Link	Followers
LinkedIn	EU	HYPERION	https://www.linkedin.com/company/hyperioneuproject/?viewAsMember=true	312
Twitter	EU	HYPERION	https://twitter.com/EuHyperion	357
Facebook	EU	HYPERION	https://www.facebook.com/HyperionEUProject/	553
Facebook	Greece	AUTH	https://m.facebook.com/profile.php?id=262581380917388	101,945
Twitter	Greece	AUTH	https://twitter.com/Aristoteleio	7,517
LinkedIn	Greece	AUTH	https://www.linkedin.com/school/aristotle-university-of-thessaloniki-auth-/	101,945
LinkedIn	Greece	NTUA	linkedin.com/school/national-technical-university-of-athens/posts/?feedView=all	60,381
Twitter	Greece	NTUA	https://twitter.com/ntua	6,815
Facebook	Greece	NTUA	https://www.facebook.com/NationalTechnicalUniversityofAthens/followers	5.5K
Twitter	Finland	FMI	https://twitter.com/meteorologit	201,6K
Facebook	Finland	FMI	https://www.facebook.com/fmibeta/	3.980
LinkedIn	Germany	RISA	https://www.linkedin.com/company/risa-sicherheitsanalysen-gmbh	113
LinkedIn	Norway	VFK	https://www.linkedin.com/company/vestfold-fylkeskommune	2,205
Facebook	Greece	ISENSE Group of ICCS	https://www.facebook.com/ISENSEGroup/	677
LinkedIn	Greece	ISENSE Group of ICCS	https://www.linkedin.com/company/isensegroup/	3,169
Twitter	Greece	ISENSE Group of ICCS	https://twitter.com/isense_group	1,207

Dialogue with networks, communities and associations

In addition to using the direct project sources (partners, project activities etc.), emphasis was, as mentioned above, given to identify the sources that each potential stakeholder group is already tied into or most respects as an information source. Various media and tools were used to deliver the project message, content and results to the target group, i.e. the ways or mechanisms used to send info to or communicate with the target group. Communication was implemented by interpersonal contact (two-way communication) or through mass media (one-way communication). The one-way communication is associated with smaller audience, and lower costs, and more effort. Potentially large audience uses the credibility of the mass media.

Liaison Activities

HYPERION liaised and collaborated with several European Research and Technological Development initiatives, participating in working groups and events, networking and exchanging ideas and knowledge with their members, co-organising events or boosting joint dissemination activities. In this essence, HYPERION joined HORIZON Results Booster programme and participated along with the sister projects ARCH and SHELTER. During the programme's course, the sister projects created several common communication and dissemination materials, a common logo, a flyer and an informative video. All communication materials are available on HYPERION's website, here. Moreover, the sister projects organized a common peer learning workshop on the 6th of April 2022 with single goal to assist researchers in exchanging views and sharing knowledge on Cultural Heritage Resilience. The workshop's results led to the production of an infographic that can be viewed or downloaded here. The Horizon Results Booster programme was successfully concluded by Mrs. Irini Krimpa from ICCS who received a certificate of completion.
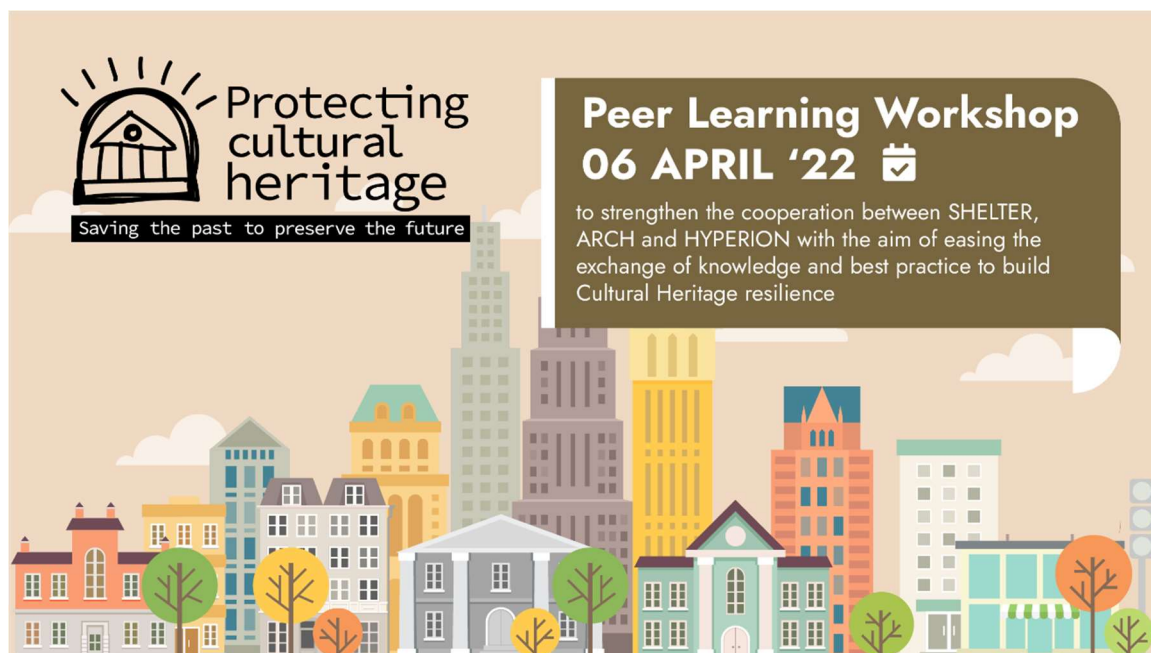
FIGURE 49: PEER LEARNING WORKSHOP BANNER

The active cooperation with the sister projects ARCH and SHELTER led to the establishment of an EU Task Force for Climate Neutral and Resilience Historic Urban Districts on 23rd of June 2021. The Task Force's mission was to bring together actors from practice, research, and policy to promote the development and adoption of advanced solutions for resilient planning for historic urban areas, allowing them to adapt to climate change and making them climate neutral in the process. In doing so, the aim was to provide support to European authorities and decision makers for developing common evidence-based policies, strategies, and procedures. To achieve this goal, the Task Force focused on 3 thematic areas: Developing resilience strategies for historic urban districts; developing harmonized approaches for assessing and monitoring risk and resilience; and, developing equitable solutions for and with communities. The Task Force implemented 3 meetings (5 workshops), it has participated in various prominent events (i.e. EU Regions week 2022) and has issued a concept paper which was disseminated in the EC. The concept paper can be downloaded through HYPERION's website here.

TABLE 6: HYPERION'S LIAISON ACTIVITIES

Event	Location / Date	Partners involved	More information
1st EU Task Force Meeting	Virtually 23/06/2021	ICCS	https://shelter-project.com/eu-task-force/
2nd EU Task Force Meeting - Workshop 1	Virtually 14/12/2021	ICCS	https://www.hyperion-project.eu/2270-2/
2nd EU Task Force Meeting - Workshop 2	Virtually 14/12/2021	ICCS	https://www.hyperion-project.eu/2270-2/
2nd EU Task Force Meeting - Workshop 3	Virtually 15/12/2021	ICCS	https://www.hyperion-project.eu/2270-2/
3rd EU Task Force Meeting	Thessaloniki & Virtually 03/06/2022	ICCS	https://www.hyperion-project.eu/3rd-eu-task-force-meeting-for-climate-neutral-and-resilient-historic-urban-districts/
Peer Learning Workshop with Arch & Shelter	Virtually 06/04/ 2022	ICSS	https://www.hyperion-project.eu/hyperion-joined-workshop-with-sister-projects-arch-shelter/ https://www.hyperion-project.eu/wp-content/uploads/2022/09/SHELTER_Infographic_V2.pdf
Presentation of EU Task Force Results & HYPERION's research activities at EU Regions Week 2022	Virtually 12/10/2022	ICCS	https://eu.app.swapcard.com/event/euregionsweek-2022/planning/UGxhbm5pbmdfOTYwNjc3
Demonstration of HYPERION's Results at SHELTER's Final Event	Venice 27-28/04/2023	IUAV	https://shelter-project.com/news/41/eu-horizon-2020-funded-shelter-project-presents-results-at-the-final-conference-in-venice/
Heritage for the Future/Science for Heritage conference	Paris 15-16/03/2022	Sister Projects	https://events.wisembly.com/heritage4future

FIGURE 50: BANNER OF THE 2ND EU TASK FORCE MEETING

Participation in events, conferences and workshops

In the context of HYPERION, special attention was given to the project's dissemination activities as well as in the event organisation and participation, throughout the course of the project. By effectively exploiting such opportunities, HYPERION aimed to achieve wide acceptance and scale up of the project advances and results by a critical mass of interested stakeholders and communities in the fields of interest.

These opportunities were referred, but not limited, to the following:

- The participation in European and international conferences, specialized meetings, fora, working groups;
- The organization of dedicated events (e.g. Special Interested Sessions, demonstration events, International conference etc.);
- The publication in peer review scientific & technical journals, conference proceedings and high reputational magazines as already described previously in this document;

IEMC, as WP Leader, has proceeded, with the creation of a repository for HYPERION's events that were considered as valuable opportunities for the project. The repository included an indicative list of proposed scientific journals and an indicative list of proposed upcoming European and international events and it was regularly updated mainly by WP Leader and by the consortium partners. In addition, HYPERION partners were regularly informed through emails about upcoming key opportunities so they would be able to benefit from them.

Date	Event	Location	Title	Involved partners (not all from HYPERION)	Link on HYPERION Website
2019	University Lecture	Online	Lecture about HYPERION to the students from the School of History & Archaeology of the Aristotle University of Thessaloniki (AUTH);	Dr. Angelos Amditis;	https://www.hyperion-project.eu/lecture-about-hyperion-to-the-students-from-the-school-of-history-archaeology-of-the-aristotle-university-of-thessaloniki-auth/
5-6 May 2020	ADAPT, Nothern Heritage Conference;	Virtually	HYPERION: A decision Support System for Improved Resilience and sustainable Reconstruction of historic areas;	Antonis Kalis, Ari Karppinen, John Zeppos, Vagelis Plevris, Dimitris Vamvatsikos, Stephanos Camarinopoulos, Claudio Mazzoli, Enrique Hernández Montes, Nicolas Moussiopoulos, Pantelis Nicolaou, Fabrizio Antonelli, Panagiotis Yannakopoulos, Ettore Fagà;	https://www.hyperion-project.eu/wp-content/uploads/2022/01/ANHConf2020_presentation-HYPERION.pdf
5-6 May 2020	ADAPT, Nothern Heritage Conference;	Virtually	Hygrothermal performance of an old building with log walls from the region of Vestfold in Norway;	Petros Choidis, Dimitrios Kraniotis;	https://www.facebook.com/watch/live/?ref=watch_permalink&v=687154092061690
16 September 2020	Open Festival "open Festival called "Drones for Good"	Venice, Italy	Presentation about HYPERION	Matteo Massironi, Jacopo Nava ;	https://www.hyperion-project.eu/university-of-padova-dissemination-actvities/ https://docs.google.com/forms/d/e/1FAIpQLSdp0nZoGqyFA_ExTBHENnOZhTTSfGSRLVXq92GHUo6E3biJ8A/viewform
16-18 September 2020	12th International Conference on Structural Analysis of Historical Constructions SAHC 2020;	Barcelona, Spain	A Preliminary Structural Survey of Heritage Timber Log Houses in Tornsberg, Norway;	AMIRHOSEIN SHABANI, HAIDAR HOSAMO, VAGELIS PLEVRIS, AND MAHDI KIOUMARSI;	https://www.youtube.com/watch?v=j4oI88QNyPw

Date	Event	Location	Title	Authors	Link
27 October 2020	Roundtable International transfer of technologies: Semantic transformation of space"	Athens , Moscow & Virtually	Presentation about HYPERION	Angelos Amditis ;	https://www.hyperion-project.eu/round-tavle-hybrid-meeting/
25 Nov 2020	Workshop	Venice, Italy	Characterization of the building materials of the main facade of Santa Maria dei Servi Church and the secondary phases products;	Claudio Mazolli, Chiara Coletti;	https://www.hyperion-project.eu/wp-content/uploads/2022/02/HYPERION_Annual_Magazine_v5.pdf (p.7)
30 May – 6 June 2021	Japan Geoscience Union Meeting;	Online	HYPERION: understanding and quantifying the effects of climate change on cultural heritage;	Chiara Coletti, Luigi Germinario, Fabrizio Antonelli, Renzo Bertoncello, Antonio Galgaro, Lara Maritan, Matteo Massironi, Jacopo Nava, Rebecca Piovesan, Raffaele Sassi, Elena Tesser, Claudio Mazzoli;	https://www.hyperion-project.eu/wp-content/uploads/2022/10/2021_08_Abstract_2021_JPU.pdf
30 August – 2 September 2021	4th International Conference on Structural Integrity;	Virtually	3D simulation models for developing digital twins of heritage structures: challenges and strategies;	A. Shabani, M. Skamantzari, S.Tapinaki et al.;	https://www.youtube.com/watch?v=B_HwNFA0gwk
27 September - 2 October 2021	17th World Conference on Earthquake Engineering;	Sendai Japan	A Comparative study on the Initiali IN-PLANE Stifness of Masonry walls with openings;	Amirhosein Shabani, Vagelis Plevris, Mahdi Kioumarsi;	https://www.hyperion-project.eu/wp-content/uploads/2022/01/WCEEC004540.pdf
25-27 October 2021	4th International Conference on Protection of Historical Constructions, PROHITECH 2021: Protection of Historical Constructions;	Athens, Greece	Structural Model Updating of a Historical Stone Masonry Tower in Tønsberg, Norway	Amirhosein Sabani, Agon Ademi, Mahdi Kioumarsi;	https://www.hyperion-project.eu/wp-content/uploads/2022/01/Structural-Model-Updating-of-a-Historical-Stone-Masonry.pdf

9 November 2021	Event LA CONSERVAZIONE DEI BENI CULTURALI TRA CAMBIAMENTI CLIMATICI E INQUINAMENTO ATMOSFERICO	Venice, Italy	HYPERION (EU H-2020). Cambiamenti climatici, eventi estremi e resilienza di aree storico monumentali: il caso studio della Torre dell'Orologio di Venezi;	Rebecca Piovesan, Elena Tesser, Fabrizio Antonelli;	https://www.hyperion-project.eu/wp-content/uploads/2022/01/HYPERION.-Cambiamenti-climatici_v2-PANOS.pdf
6 April 2022	Peer Learning Workshop	Virtually	HYPERION- The Venice Pilot Case;	Claudio Mazolli;	https://www.hyperion-project.eu/wp-content/uploads/2023/05/HYPERION-Venice-pilot-case-3.pdf
6 April 2022	Peer Learning Workshop	Virtually	Norwegian Pilot Area;	Mahdi Kioumarsi, Amirhosein Shabani;	https://www.hyperion-project.eu/wp-content/uploads/2023/05/HYPERION_OsloMet_Norway-1.pdf
23-27 May 2022	EGU General Assembly 2022;	Vienna & Virtually	Bridging urban development, resilience planning, and heritage management for Climate Neutral and Resilient Historic Urban Districts;	Antonis Kalis;	https://www.hyperion-project.eu/wp-content/uploads/2022/10/2022_11_EGU-ICCS-HYPERION-AK-V2.pdf
23-27 May 2022	EGU General Assembly 2022;	Vienna & Virtually	Developing a new method for long-term monitoring of the weathering of historical building materials;	Germinario L., Coletti C., Choidis P., Kraniotis D., Maritan L., Sassi R., Tositti L., Mazzoli C.;	https://www.hyperion-project.eu/wp-content/uploads/2022/10/2022_10_Germinario-et-al.-2022.-EGU22.pdf
23-27 May 2022	EGU General Assembly 2022;	Vienna & Virtually	A Communities Engagement Mobile Application for Assessing the Resilience and Deterioration of Cultural Heritage Monuments;	Maria Krommyda, Nikos Mitro, Katerina Georgiou, Vassillis Nousis, and Angelos Amditis;	https://www.hyperion-project.eu/wp-content/uploads/2022/10/2022_12_EGU_A-Communities-Engagement-Mobile-Application-for-Assessing-the-Resilience.pdf

10 October 2022	20th European Week of Regions and Cities;	Virtually	Tools for impoved Resilience of Historic Areas;	Antonis Kalis;	https://eu.app.swapcard.com/event/euregionsweek-2022/planning/UGxhbm5pbmdfOTYwNjc3
6 December 2022	ERASMUS+/ICM INTERNATIONAL WEEK;	Athens	HYPERION platform & recent results;	Antonis Kalis;	https://www.hyperion-project.eu/hyperion-presented-at-the-erasmus-icm-international-week/
22 March 2023	TMM_CH 2023 International Conference;	Athens	HYPERION's project results and latest achievements;	Angelos Amditis;	https://www.hyperion-project.eu/hyperion-at-the-tmm-ch-2023/
23 April 2023	EGU General Assembly 2023;	Vienna & virtually	Organization of a Session: Cultural heritage and the environment: interaction, vulnerability, past and future changes	Luigi Germinario, Alessandra Bonazza, Antonis Kalis, and Beatriz Menéndez;	https://www.hyperion-project.eu/hyperion-organized-a-session-at-the-egu-general-assembly-2023/
27-28 April 2023	SHELTER Final Event;	Venice	SHELTER Final Conference Venice	Rebecca Piovesan;	https://shelter-project.com/news/40/shelter-final-conference/

Scientific Publications & Abstracts in Conferences

The scientific publications and abstracts that were issued in the framework of Conferences participation of HYPERION can be viewed in table 8. We note that the publications are 'open access' so there are no financial, legal or technical barriers to accessing them. That way is fostered scholarly communication that makes research information available to readers at no cost and it increases the visibility and reuse of HYPERION research results. Apart from the website of HYPERION, the publications can be also found in HYPERION's Zenodo community here.
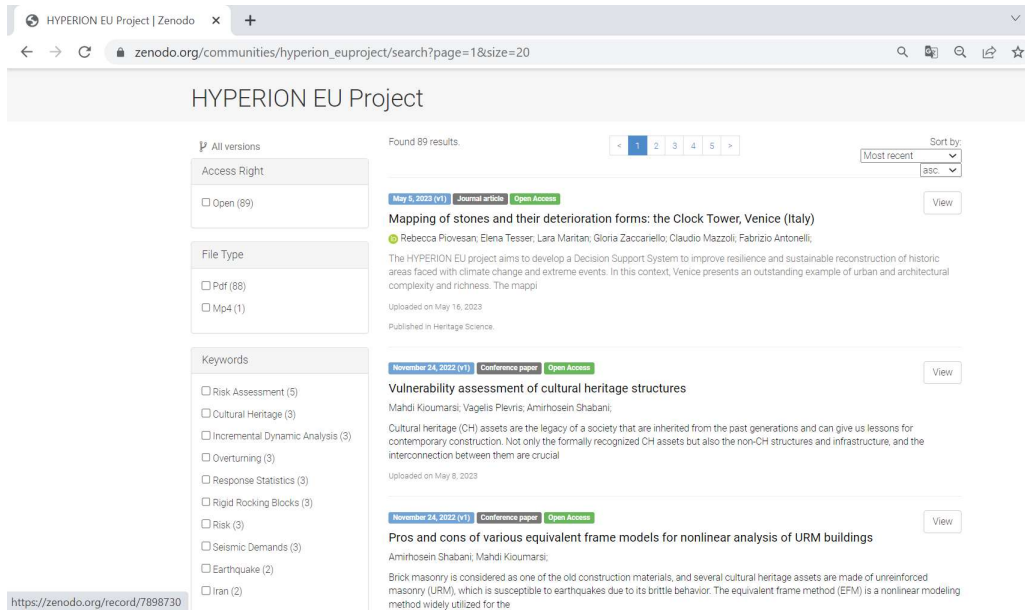
FIGURE 51: VIEW OF HYPERION ZENODO COMMUNITY

TABLE 8: LIST OF HYPERION'S CONFERENCE PUBLICATIONS & ABSTRACTS

Date	Event	Location	Title	Authors
5 September 2019	4th Panhellenic Conference on Antiseismic Engineering Technical Seismology	Athens, Greece	Empirical Relationship for Predicting Buckling Failure of Underground Pipelines Under Reverse Bursting;	Melissianos Vasileios E., Vamvatsikos Dimitrios, Gantes Charis;
11-13 November 2019	8th International Conference on Seismology & Earthquake Engineering;	Tehran, Iran	Decision Support, Resilience and Sustainable Reconstruction of Historical City Cores under Seismic Threat: The HYPERION approach;	Dimitrios Vamvatsikos,, Paolo Bazzurro;
5-6 May 2020	ADAPT, Nothern Heritage Conference;	virtual	HYPERION: A decision Support System for Improved Resilience and sustainable Reconstruction of historic areas;	Antonis Kalis, Ari Karppinen, John Zeppos, Vagelis Plevris, Dimitris Vamvatsikos, Stephanos Camarinopoulos, Claudio Mazzoli, Enrique Hernández Montes, Nicolas Moussiopoulos, Pantelis Nicolaou, Fabrizio Antonelli, Panagiotis Yannakopoulos, Ettore Fagà;
5-6 May 2020	ADAPT, Nothern Heritage Conference;	virtual	Hygrothermal performance of an old building with log walls from the region of Vestfold in Norway;	Petros Choidis, Dimitrios Kraniotis;

Date	Event	Location	Title	Authors
6-9 September 2020	12th Nordic Symposium on Building Physics (NSB 2020);	Tallinn, Estonia	Hygrothermal performance of log walls in a building of 18th century and prediction of climate change impact on biological deterioration;	Petros Choidis, Katerina Tsikaloudaki, and Dimitrios Kraniotis;
13-18 September 2020	17th World Conference on Earthquake Engineering, 17WCEE;	Sendai, Japan	Seismic risk assessment of the ancient temple of Aphaia in Greece;	V.E. Melissianos, M.-E. Dasiou, D. Vamvatsikos;
13-18 September 2020	17th World Conference on Earthquake Engineering, 17WCEE;	Sendai, Japan	ATTRIBUTE-DRIVEN FRAGILITY CURVES THROUGH CLASS DISAGGREGATION;	A.K. Kazantzi, D. Vamvatsikos;
23–26 November 2020	EURODYN 2020 XI International Conference on Structural Dynamics;	Athens, Greece	SIMPLIFIED ESTIMATION OF DESIGN FAULT DISPLACEMENT FOR BURIED PIPELINES AT FAULT CROSSING;	Vasileios E. Melissianos, and Dimitrios Vamvatsikos;
16-18 September 2020	12th International Conference on Structural Analysis of Historical Constructions SAHC 2020;	Barcelona, Spain	A Preliminary Structural Survey of Heritage Timber Log Houses in Tonsberg, Norway;	Amirhosein Shabani, Haidar Hosamo, Vagelis Plevris, And Mahdi Kioumarsi;
2-4 June 2021	9th Turkish Conference on Earthquake Engineering, 2021;	Istanbul, Turkey	A Dürüm Döner View of Seismic Risk Assessment;	Dimitrios Vamvatsikos;
5 June 2021	Japan Geoscience Union Meeting 2021 JpGU21;	online	HYPERION: understanding and quantifying the effects of climate change on cultural heritage;	Chiara Coletti, Luigi Germinario, Antonio Galgaro, Lara Maritan, Matteo Massironi, Jacopo Nava, Raffaele Sassi, Claudio Mazzoli Rebecca Piovesan, Elena Tesser, Fabrizio Antonelli, Renzo Bertoncello;
19 - 23 September 2021	31st European Safety and Reliability Conference (ESREL 2021);	Angers, France	Updating structural FE models of cultural heritage assets based on probabilistic tools;	María L., Jalón, Juan, Chiachío Luisa Mª, Gil-Martín Manuel, Chiachío Rubén, Rodríguez-Romero Víctor, Compán-Cardiel, Enrique, Hernández-Montes;
27 September - 2 October 2021	17th World Conference on Earthquake Engineering, 17WCEE;	Sendai, Japan	A comparative study on the initial in-plane stiffness of Masonry walls with opening;	Amirhosein Shabani, Vagelis Plevris, Mahdi Kioumarsi;
3 October 2021	ICSEA 2021: The Sixteenth International Conference on Software Engineering Advances;	Barcelona, Spain	A Communities Engagement Tool for Assessing the Resilience and Deterioration of Cultural Heritage Sites;	Nikolaos Tousert, Antonis Kalis Maria Krommyda, Nikos Frangakis, Spyridon Nektarios Bolierakis, Angelos Amditis;
25-27 October 2021	4th International Conference on Protection of Historical Constructions, PROHITECH 2021: Protection of Historical Constructions;	Athens	Structural Model Updating of a Historical Stone Masonry Tower in Tønsberg, Norway;	Amirhosein Shabani, Agon Ademi, Mahdi Kioumarsi;
30 August - 1 September 2021	ICSI 2021 The 4th International Conference on Structural Integrity;	Online	3D simulation models for developing digital twins of heritage structures: challenges and strategies;	Amirhosein Shabani, Margarita Skamantzari, Sevasti Tapinaki, Andreas Georgopoulos, Vagelis Plevris, Mahdi Kioumarsi;
22–27 & 29 May – June 3 2022	Japan Geoscience Union Meeting 2022	hybrid	Deterioration effects on bricks masonry in the Venice lagoon cultural heritage. Study of the main façade of	C. Coletti, Jacopo Nava, Ludovica Pia Cesareo, Lara Maritan, Matteo Massironi, Claudio Mazzoli

Date	Event	Location	Title	Authors
			the Santa Maria dei Servi Church (XIV century)	
23-27 May 2022	EGU General Assembly 2022;	hybrid, Vienna	Bridging urban development, resilience planning, and heritage management for Climate Neutral and Resilient Historic Urban Districts;	Ioannis Karaseitanidis, Antonis Kalis, Aitziber Egusquiza Ortega, Katharina Milde;
23-27 May 2022	EGU General Assembly 2022;	hybrid, Vienna	Developing a new method for long-term monitoring of the weathering of historical building materials;	L. Germinario, C. Coletti, P.Choidis, Dimitrios Kraniotis, Lara Maritan, Raffaele Sassi, Laura Tositti, Claudio Mazzoli;
23-27 May 2022	EGU General Assembly 2022;	hybrid, Vienna	A Communities Engagement Mobile Application for Assessing the Resilience and Deterioration of Cultural Heritage Monuments;	Maria Krommyda, Nikos Mitro, Katerina Georgiou, Vassillis Nousis, and Angelos Amditis;
5-9 June 2022	The 8th European Congress on Computational Methods in Applied Sciences and Engineering ECCOMAS Congress 2022;	Oslo, Norway	Pros and cons of various equivalent frame models for nonlinear analysis of URM buildings;	A. Shabani, and M. Kioumarsi;
5-9 June 2022	The 8th European Congress on Computational Methods in Applied Sciences and Engineering ECCOMAS Congress 2022;	Oslo, Norway	Vulnerability assessment of cultural heritage structures;	M. Kioumarsi, V. Plevris and A. Shabani;
29 June – July 2022	AIAr 2022;	Padova, Italy	Mapping stones and deterioration morphologies distribution at the Torre dell' Orologio (St. Mark square – Venice) in the frame of the Hyperion EU project;	Rebecca Piovesan*, Elena Tesser, Lara Maritan, Gloria Zaccariello, Claudio Mazzoli & Fabrizio Antonelli
29 June – July 2022	AIAr 2022;	Padova, Italy	Assessing climate change risk to cultural assets by monitoring and quantifying the decay of heritage materials and its environmental constraints;	Luigi Germinario, Chiara Coletti, Fabrizio Antonelli, Petros Choidis, Dimitrios Kraniotis, Lara Maritan, Rebecca Piovesan, Raffaele Sassi, Elena Tesser, Laura Tositti & Claudio Mazzoli;
June 29 – July, 2022	AIAr 2022;	Padova, Italy	Decay assessment and 3D surface modelling of historical brick masonries in Venice;	Chiara Coletti, Luigi Germinario, Enrique Hernández Montes, Luisa María Gil-Martín Lara Maritan, Jacopo Nava, Matteo Massironi, Simone Dilaria, Gianmario Guidarelli, Stefano Castelli & Claudio Mazzoli;
5 July 2022	3rd International Conference on Natural Hazards & Infrastructure, ICONHIC 2022;	Athens	Modular modeling and risk assessment of power transmission lines under extreme weather hazards;	Gerontati Angeliki; Bilionis V. Dimitrios, Vamvatsikos Dimitrios; Tibolt Mike;
5 July 2022	3rd International Conference on Natural Hazards & Infrastructure, ICONHIC 2022;	Athens	Normalized response distribution expressions for ground-supported rigid rocking bodies;	Athanasia K. Kazantzi, Christos G. Lachanas,, Dimitrios Vamvatsikos;
5 July 2022	3rd International Conference on Natural Hazards & Infrastructure, ICONHIC 2022;	Athens	The HAPI sensor-aware framework for infrastructure risk and resilience assessment;	Dimitrios Vamvatsikos, Akrivi Chatzidaki;
5 July 2022	3rd International Conference on Natural Hazards & Infrastructure;	Athens	Simplified Seismic Risk Assessment for the Water Supply Network of Rhodes, Greece;	Karaferi Evdoxia; Melissianos E. Vasileios; Vamvatsikos Dimitrios;

Date	Event	Location	Title	Authors
5 July 2022	3rd International Conference on Natural Hazards & Infrastructure, ICONHIC 2022;	Athens	Performance-based assessment of a steel lattice power-transmission tower: A case study in Germany;	Bilionis V. Dimitrios; Vlachakis Konstantinos; Bezas Marios-Zois; Tibolt Mike; Vamvatsikos Dimitrios; Vayas Ioannis;
5 July 2022	3rd International Conference on Natural Hazards & Infrastructure, ICONHIC 2022;	Athens	An integrated model for the seismic risk assessment of an oil refinery	Melissianos E. Vasileios; Karaferis D. Nikolaos; Kazantzi K. Athanasia; Konstantinos Bakalis; Vamvatsikos Dimitrios
September 2022	3rd European Conference on Earthquake Engineering and Seismology (3ECEES);	Bucharest, Romania	A preliminary urban seismic risk model for the City of Rhodes Greece;	Karaferi Evdoxia, Melissianos Vasileios Vamvatsikos Dimitrios;
September 2022	3rd European Conference on Earthquake Engineering and Seismology (3ECEES);	Bucharest, Romania	Tomb raiders of the lost accelerogram: A fresh look on a stale problem;	Dimitrios Vamvatsikos, Christos G. Lachanas;
19-21 September 2022	SGI-SIMP 2022 Meeting;	Torino, Italy	Stone recession in cultural heritage investigated by laboratory ageing tests;	Mazzoli C., Salvini S., Coletti C. Germinario L., Maritan L., Massironi M., Pozzobon R.;
20-22 October 2022	5th Panhellenic Conference on Antiseismic Engineering Technical Seismology;	Athens, Greece	A Normative Approach to Calculating Seismic Fault Movement for the Seismic Design of Underground Pipelines;	Melissianos Vasileios E.; Vamvatsikos Dimitrios; Danciu Laurentiu; Basili Roberto;
22-26 May 2023	39th International Technical Meeting On Air Pollution Modeling And Its Application (ITM 2023);	Chapel Hill, North Carolina, U.S.A	Dynamic Data Assimilation of meteorological and climate data from sensors;	Eleftherios Chourdakis, George Tsegas, Fotios Barmpas and Nicolas Moussiopoulos;

Training & Demonstration Events

During its course, HYPERION organized three training and demonstration events. The 1st one took place on the 11-12 of June 2022 at the New European Bauhaus (NEB) in Brussels where ICCS showcased HYPERION's innovative tools (Environmental sensor, known as SmartTag and digital Engagement Community Tool) in the mobile fair; More information about the event can be found [here](#).

The 2nd Training and Demonstration event took place in Granada on the 8th of November 2022. The event was co-organised by the Universidad de Granada and the I-SENSE Group. The event's goal was to present HYPERION's developed tools to stakeholders from different fields and facilitate the adoption & exploitation of HYPERION's results in the near future. HYPERION's results were presented through a series of interactive presentation and the event was concluded with a visit to HYPERION's pilot site in Granada (the Monastery of San Jeronimo) where stakeholders were introduced to the research activities that took place there and enjoyed an on-site hands-on demonstration of the HYPERION Community engagement tool.

The 3rd Training and Demonstration event took place in Venice as part of HYPERION's Final Event. IEMC is planning to organize a 4th Training & Demonstration Event in Athens on June 2023.
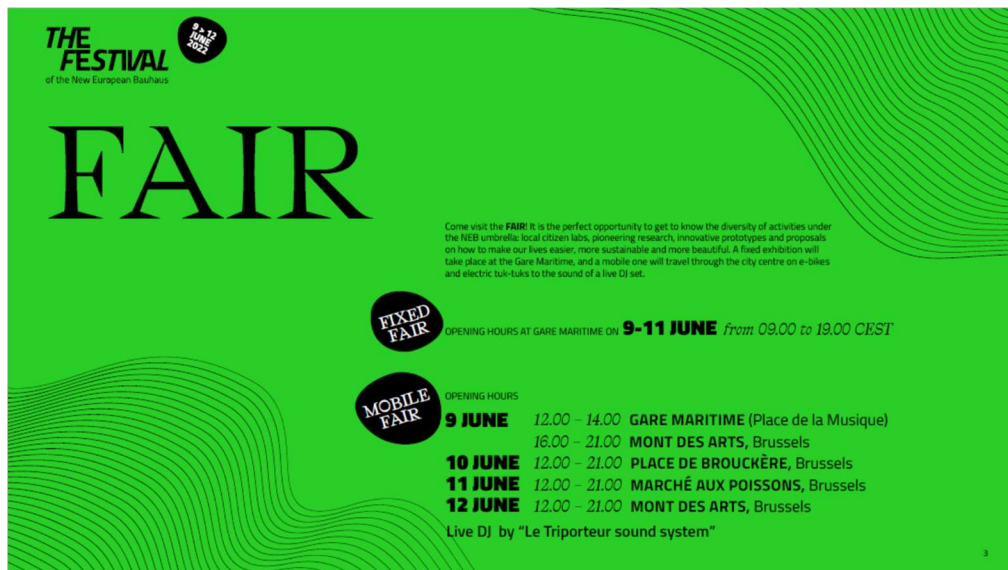
FIGURE 52: NEW EUROPEAN BAUHAUS FESTIVAL 2022 PROGRAMME

Seminars, Webinars & workshops

- Presentation of HYPERION's activities at the webinar "Anche le rocce invecchiano: il degrado dei monumenti" at I.I.S. Statale "Ettore Majorana - Elena Corner on the 8th of January 2021;
- Presentation of HYPERION's activities at the seminar "Practical examples on Heritage stones research" on the 17-20 May 2021 at the Department of Geosciences of the University of Padova;
- Partners from the UNIPD conducted a presentation entitled "Updates and new research" in the webinar of La chiesa di Santa Maria dei Servi on the 17th of September 2021;
- Presentation on HYPERION's activities at the seminar "Catastrophe risk modeling in real life: Pacific Islands and the Caribbean" by RED S.r.l. on the 27th October 2021 at the National Technical University of Athens;
- Partners from the IUAV University conducted a presentation entitled "HYPERION (EU HO 2020). Cambiamenti climatici, eventi estremi e resilienza di aree storico monumentali: il caso studio della Torre dell'Orologio di Venezia." On the 8th-9th of November 2021 in Venice, Italy;
- Organization of an online Peer Learning Workshop with sister projects ARCH and SHELTER on the 6th of April 2022; HYPERION partners form the UNIPD and OSLOMET presented the pilot sites of Venice and Tonsberg;

Other Events

- Presentation of the HYPERION Project for Regional politicians elected for the period 2016-2019. Main committee for culture, public health, dental health and sports. Tønsberg, 16.09.2019;
- Presentation of the HYPERION Project for Regional politicians elected for the period 2020-2024. Main committee for culture, public health, dental health and sports. Skien, 06.02.2020;

- On the 27th of November 2020, Dr. Angelos Amditis participated in the European Researchers' Night event organized by National and Technical University of Athens. During the event, Dr. Amditis introduced HYPERION's objectives and vision to the General Public. More information can be found here;

- On November 30th, 2021, HYPERION was awarded with the Laureate 1st at the International Environmental Competition EcoWorld-2021, organised by the Russian Academy of Natural Sciences (RAEN). HYPERION project was a candidate among other 103 proposals and received the award for its significant research contribution on the international ecological and architectural impact. The received distinction is a public award for outstanding achievements in environmental protection and environmental safety, as well as in other environmental activities aimed at sustainable development in the 21st century. More information can be found here;

- On the 5-7 July 2022, HYPERION organized a Special Session, entitled "Multi-Hazard & Resilience Assessment: Novel Applications to Networks and Systems of Assets" at the 3rd International Conference on Natural Hazards & Infrastructure; More information about the session can be found here;

- On the 30th of September 2022, HYPERION's recent developments were presented at the the European Researchers' Night in Cyprus. More information can be found here;

Final Event

HYPERION's final conference was organised on 20th of April 2023 (at the end of the project) to demonstrate to a large number of stakeholders the system developed, and results achieved throughout the 4.5 years of research activities.

FIGURE 53: HYPERION FINAL EVENT POSTER

The HYPERION Final Event was organized by the City of Venice, the IUAV University of Venice, the University of Padova in collaboration with HYPERION's Coordinator I-SENSE Group of the Institute of Communication and Computer Systems (ICCS) of the National Technical University of Athens.

At this key public event, a series of interactive presentations and demonstrations showcased how HYPERION using existing tools and innovative technologies, developed an integrated resilience assessment platform (HRAP), using which, local authorities and cultural heritage managers will be able to have a better understanding of the threats and dangers of tangible Cultural Heritage sites and make decisions for a swifter and more effective response, contributing to the sustainable reorganization of the historical regions under threat. The vice mayor of Venice attended the event and highlighted the importance of such research initiatives for the sustainability of the city.

Participants in the final Event: 63

3.6 Key Communication Channels per Audience Group

Dissemination activities are of utmost importance both **during project duration** to create visibility and raise awareness within the scientific community, **and after the project end** to utilise the results and find ways to further continue and advance the related research. HYPERION gave special emphasis on the active and dynamic dissemination and exploitation of results to the relevant policy makers, governmental bodies and authorities:

✓ *Dissemination Activities to Policy-makers:* The HYPERION project disseminated its results to the policy-makers. Although workshops were planned to be organised in cooperation with ICOMOS and CIPA at the Headquarters of UNESCO in Paris, this wasn't possible due to the COVID-19 restrictions. Having set the new direction, HYPERION team chose to participate instead in the European Week of Regions and Cities (#EURegionsWeek), the annual Brussels-based event that consist a unique communication and networking platform, bringing together regions and cities from all over Europe, including politicians, administrators, experts and academics.

✓ *Dissemination Activities to relevant Governmental Bodies and Policy making Organisations:* Governmental bodies responsible for the management and protection of Cultural Heritage, for Civil Protection, for Infrastructure, for Environment and for the Economy were presented of the ongoing results of the HYPERION project. In the Final Event HYPERION Project was supported by the Mayor of Venice and a considerable number of policy-making stakeholders were also involved.

✓ *Dissemination Activities addressed to case studies:* HYPERION included focused dissemination activities to the project's Historic Cities, in coordination with local authorities and project participants, that presented, promoted and provided feedback of the project's results to all interested communities for each Use Case, including Municipalities, local/regional governments, relevant Professional Chambers, relevant social groups, etc.

✓ *Dissemination Activities to Ephorates: HYPERION project was disseminated by the Ephorate of Rhodos both to specific Ephorates responsible for the management and protection of cultural heritage assets as well as to the wide public through the video created from Eurisy.* Ephorates from other CH sites that face similar threats from CC and natural hazards could benefit from the results of the HYPERION project.

HYPERION underlined the importance of the active participation of local stakeholders for the successful implementation of any mitigation and adaptation strategies and technologies that

consider the needs of local communities. To succeed this, the local actors were actively informed of the HYPERION project's results and provided valuable feedback. HYPERION's results were also presented to various international organizations relevant to CH protection and management, CC and natural hazards, and economic development. These included the International Council of Monuments and Sites (ICOMOS), the Organization of World Heritage Cities (OWHC) the International Committee for Documentation of Cultural Heritage (CIPA), the United Nations Office for Disaster Risk Reduction - Regional Office for Europe (UNISDR EUR), the Organisation for Economic Co-operation and Development (OECD), the European Investment Bank (EIB), , the European Society for Engineering Education (SEFI) and the European Association of Archaeology. And specifically in Greece the results were presented to International Council on Monuments and Sites – I.C.O.MO.S. the official technical advisor of UNESCO, EUROPA NOSTRA Hellas, Mariolopoulos-Kanaginis Foundation, Society for the Environment and Cultural Heritage, The Piraeus Bank Group Cultural Foundation (PIOP) & Perraivia Network.

3.6.1 Mapping Audience Groups

Audience Groups mapping contributed to map the target audience/stakeholders and it was an essential and basic step complementing the Communication activities of the project. In the process, HYPERION team identified the individuals and groups that were likely to affect or be affected by HYPERION's proposed actions and results. Then, grouped them based on their impact and interest factors on the actions as well as the impact the actions may have on them.

By assessing this information, the consortium got a clearer vision on how the interests of those stakeholders should be addressed in the project communication and dissemination plan and relevant activities.
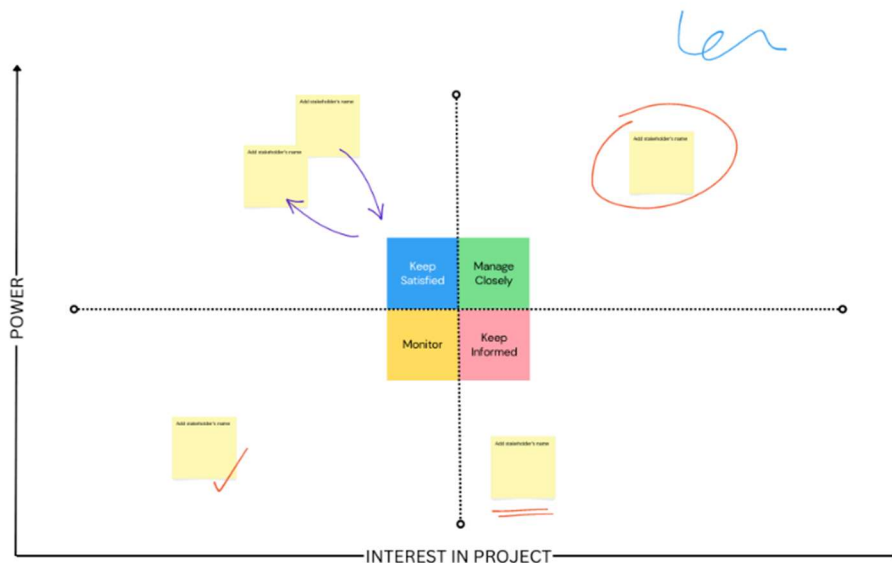
FIGURE **54: ILLUSTRATION OF METHODOLOGY OF TARGET AUDIENCES**

The following project target audiences were identified and categorized in connection to the project based on the figure below:

- Group 1 "Keep 'satisfied'': relevant national public bodies, EU, Other H2020 and related projects, Academia;
- Group 2 "Manage closely": EU Commission Services, HYPERION participants, Partners;
- Group 3 "Monitor": the general public, media, private sector, Applied technologies;
- Group 4 "Keep informed": expert panel, scientific community, workshop participants, decision and policy-makers;

TABLE **9: T**ARGET GROUPS FOR THE KEY COMMUNICATION CHANNELS

Channel	Audience				
	Scientific Community	Private Sector	Policy Makers	Public Bodies	General Public
Project website Newsletters	√	√	√	√	√
Digital media, such as online newspapers and magazines		√		√	√
Traditional media, such as TV, radio and press	√	√	√	√	√
Communication and dissemination materials, such as roll up banners, leaflets, posters, Short Animated Videos, etc.	√	√	√	√	√
Annual magazines	√	√	√	√	
Press releases, Advertorials		√	√	√	√

Publications in scientific journals	√	√	√		
Social media: Twitter, Linkedin, Facebook, Instagram, YouTube	√	√	√	√	√
Interactive discussion on social media, social media campaigns	√	√	√	√	
Dialogue with networks, communities and associations	√	√	√	√	
Physical meetings	√		√	√	
Field events such as conferences, fairs, special sessions and workshops	√	√	√	√	
Pilots	√	√	√	√	
Final Event	√	√	√	√	

TABLE 10: PLAN FOLLOWED FOR COMMUNICATION ACTIVITIES PER TARGET AUDIENCE

Target Audiences	Category	Communication Channels	Frequency	Responsibility and task division
Scientific Community	Keep informed and involved'	Website Digital media, Traditional media Communication and dissemination materials. Annual magazines Press releases, Advertorials Publications in scientific journals Social media Interactive discussion on social media, social media campaigns Dialogue with networks, communities and associations Physical meetings Field events Pilots Final Event	***	Research reports: WP leaders Other: All partners, as relevant
Private Sector	Monitor	Website Digital media, Traditional media Communication and dissemination materials. Annual magazines	*	Coordination: ICCS, specific responsibilities: CYRIC, RISA, RG. All partners contributed as relevant (e.g. provide potential people to disseminate)

Target Audiences	Category	Communication Channels	Frequency	Responsibility and task division
		Press releases, Advertorials		
		Publications in scientific journals		
		Social media		
		Interactive discussion on social media, social media campaigns		
		Dialogue with networks, communities and associations		
		Field events		
		Pilots		
		Final Event		
Policy Makers	Keep informed and involved	Website	**	Coordination: ICCS, specific responsibilities: VFK, CVI, DG, EFAD, ADG.
		Traditional media		
		Communication and dissemination materials.		
		Annual magazines		
		Press releases, Advertorials		All partners contributed as relevant (to communicate important outputs/results in WPs)
		Publications in scientific journals		
		Social media		
		Interactive discussion on social media, social media campaigns		
		Dialogue with networks, communities and associations		
		Physical meetings		
		Field events		
		Pilots		
		Final Event		
Public Bodies	Keep informed and 'satisfied'	Website	**	Coordination: ICCS
		Traditional media		
		Communication and dissemination materials.		
		Annual magazines		
		Press releases, Advertorials		All partners contributed as relevant (to communicate important outputs/results in WPs)
		Publications in scientific journals		
		Social media		
		Interactive discussion on social media, social media campaigns		
		Dialogue with networks, communities and associations		
		Physical meetings		

Target Audiences	Category	Communication Channels	Frequency	Responsibility and task division
		Field events		
		Pilots		
		Final Event		
General Public	Monitor	Website	**	RED prepared template and wrote general press releases
		Digital media,		
		Traditional media		All partners adapted press releases to national context and disseminated to national media
		Communication and dissemination materials.		
		Press releases, Advertorials		
		Social media		
		Interactive discussion on social media, social media campaigns		

3.6.2 Project's Key Messages

The core value of the nature of the dissemination is to communicate openly with the target audiences already defined.

The message component of the dissemination and communication strategy comprised the set of arguments, reasons and facts to be used to convince the targeted audiences of the value in using HYPERION results. Key messages were intended to deliver relevant and meaningful content suited to communicate project's value proposition to each of the target audiences.

Project's General Message

Since communication is the activity of delivering meaningful information, to successfully communicate key messages, HYPERION deployed strategic methods:

- ✓ scientific results and applications' developments were fed in the communication strategy to share messages about the added value of the project. As such, the dissemination partners collaborated with all project partners to share project progress;
- ✓ communication reached-out new users and communities;
- ✓ HYPERION defined and communicated shared messages meaningful for all audiences:
- ✓ HYPERION messages were 'audience-specific' and thus varied to address their respective, specific expectations and interest from the project;
- ✓ messages were continuously enriched through the project lifetime to reflect project progress, advancements and priorities as defined by the project or the external context;
- ✓ messages were adapted to the technical/scientific level of the audience, and where necessary, a 'lay' approach and language were adopted;

The HYPERION's key messages connected to the project's objectives are presented in the following table:

MESSAGES	TECHNICAL/ SCIENTIFIC LEVEL AUDIENCE			
	Non-Scientific Community	Scientific Community	Local stakeholders	Media & scientific journals
OBJECTIVE 1: HYPERION aims to leverage existing tools and services (e.g., climate/extreme events models, and their impacts, decay models of building materials, Copernicus services, etc.), novel technologies (terrestrial and satellite imaging for wide-area inspection, advanced machine learning, etc.) to deliver an **integrated resilience assessment platform**, addressing multi-hazard risk understanding, better preparedness, faster, adapted and efficient response, and **sustainable reconstruction** of historic areas.				
HYPERIONS' integrated **resilience assessment platform**, helps addressing multi-hazard risk understanding, better preparedness, faster, adapted and efficient response, and **sustainable reconstruction** of historic areas.		✓	✓	✓
HYPERION enhances resilience and reduced vulnerability of historic areas to climate change and other natural hazards	✓	✓	✓	✓
OBJECTIVE 2: HYPERION will take into account the local **eco-systems** in the CH areas, mapping out their interactions and following a truly **integrated/sustainable reconstruction** approach (*technical, social, institutional, environmental and economic level*), by incorporating **active communities participation** (using the PLUGGY social platform[6]) and by supporting new business models based on the concept of a "**load-balancing**" economy, (using an algorithm that acts like a "reverse proxy", distributing client traffic across different companies within the same sector) and offering **financial risk-transfer tools** (insurance, Catastrophe-CAT-bonds[7]) that can ensure the immediate funds availability to fuel timely build-back-better efforts.				
HYPERION develops a truly **integrated/sustainable reconstruction** approach in the Cultural Heritage areas	✓	✓	✓	✓
HYPERION fosters improved reconstruction and economic and social recovery of historic areas by local authorities and communities using new knowledge and tools.	✓	✓	✓	✓

Project's Key Phrases

Title, keywords and key Phrases have the potential to significantly impact the chances of the project to get picked up when searched, read, cited and included in systematic reviews.

During the dissemination of the project key terms/phrases were selected to be used in dissemination material and activities

Key Phrases that supported HYPERION project are presented below:

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[6] The coordinating partner ICCS is also the project leader and the responsible for the social platform of the PLUGGY project: https://www.pluggy-project.eu

[7] https://www.investopedia.com/terms/c/catastrophebond.asp, https://en.wikipedia.org/wiki/Insurance-Linked_Securities_(ILS)

<u>Project's Impact</u>

- ✓ Multi-hazard risk understanding;
- ✓ Faster, adapted, efficient response;
- ✓ Better preparedness;
- ✓ Sustainable reconstruction;
- ✓ Quantitative impact assessment;

In a similar way as with the objectives of the dissemination plan, the key messages were deployed with a different focus along the project lifetime:

- ✓ Stage 1 (M1-M12): The project aims …; The objectives of the project are …; The potential impact of the project is …;
- ✓ Stage 2 (M6-M24): HYPERION team is working on the development of …;
- ✓ Stage 3 (M18-M30): Preliminary results are …;
- ✓ Stage 4 (M24-M48): The project achievements are …; The impact of this developments is …; Lessons-learned is…; Recommendations are …;
- ✓ Stage +1 (M48-2 years after the completion of the project): Successful transfer of project results…; uptake of the project results…; know-how…; Transferring knowledge….;

Project's Key Words

The keywords were essential for the scientific dissemination of the project and the primary means of communicating to search engines the topics the project is covering.

The following key words were given:

H2020, Climate Change, Cultural Heritage, Sustainable Reconstruction, Hygrothermal analysis, structural/geotechnical analysis, project, Novel Sensors, Resilience, innovation, Norway, Spain, Italy, Greece, Historic areas, Hazard events, Holistic resilience assessment platform

Meanwhile for supporting the dissemination and communication of the project in social media, tweetable key messages were created and supported by the following HASHTAGS:

#HYPERION, #CulturalHeritage, #Climatechange, #SustainableReconstruction, #resilience, #multihazardrisk, #NovelSensors, #innovation, #researchinfrastructure, #opendata, #UNESCO, #EuropaNostra, #UNFCCC, #EuropeanHeritage, #owhc

AT (@) was used for certain mass media channels (@icomoshellenic.gr, @kathimerini.gr, @ert.gr, @euronews.com) that HYPERION connected to.

Under the broad objection statements of HYPERION project (General Message), a varied realm of activities took place. To convey the purposes and objectives of the project to the external audiences, the DCP encompassed a set of basic key messages that showcases HYPERION's concept and that served everybody for communicating the ultimate vision of the project.

Those messages, and their derivatives, were essential foundations for success of the CDP. They were repeated constantly in all events where HYPERION were present and were launched repeatedly from the different platforms including social media used by the HYPERION project and specifically on the HYPERION website and Twitter account. Such a recurrence ensured the correct understanding of the project aims and contributed to the sustained attachment of related actors to it. Partners were encouraged to contribute by spreading those same words permanently.

Tailored key messages were extracted from project's results to be addressed to targeted groups in a way that encourages them to factor the outcomes into their work

Stage 1 and Stage 2 (M1-M24) KEY MESSAGES:

- ✓ HYPERION aims to introduce a research framework for downscaling the created climate and atmospheric composition and specific damage functions for Cultural Heritage materials;
- ✓ HYPERION is the development of a Decision Support System for Improved Resilience & Sustainable Reconstruction of historic areas to cope with Climate Change & Extreme Events based on Novel Sensors and Modelling Tools;
- ✓ HYPERION involves researchers, citizen scientists, industry, decision makers and the society in general in sustainable reconstruction plans for the CH damages;
- ✓ HYPERION vulnerability map visualizes the built heritage and cultural landscape under future climate scenarios;
- ✓ HYPERION are demonstrated to four European historic areas in Norway, Spain, Italy and Greece;

Stage 3 (M18-M30) KEY MESSAGES:

- ✓ HYPERION facilitates Faster, Adapted, efficient response;
- ✓ HYPERION allows more frequent inspections, which leads to improved maintenance scheduling, targeting to the forecast of future damages and the on-time intervention (predictive maintenance);
- ✓ HYPERION greatly reduce maintenance costs for the associated organisations;
- ✓ HYPERION innovates on integrating ground multi/hyper-spectral imaging analysis techniques on automating the diagnosis of the current assessment status of a CH monument/historic area site;
- ✓ HYPERION improves innovation capacity and integrate new knowledge
- ✓ HYPERION probes the issues of protection and integrity of Cultural Heritage assets in historic areas;
- ✓ HYPERION promotes the relation between the protection of the historic areas and its cultural uses by society i.e. the transformational challenge of Cultural Heritage;
- ✓ HYPERION contributes with a ready-to-market product towards large area inspection for historic cities but also on other type of large infrastructures, e.g., railways and urban road network, civil infrastructures;

Stage 4 (M24-M42) KEY MESSAGES:

- ✓ HYPERION includes products and services that assist CH experts in understanding the effect of previous restoration processes and taking decisions and mitigation strategies to avoid material degradation phenomena and enhance resilience;
- ✓ HYPERION is expected to highly contribute to a safer city network for all citizens, tourists, commuters, and any other users activated in the historic areas, through its advanced services and outputs;
- ✓ HYPERION opens up new avenues for mitigation and adaptation measures across all sectors from construction to transport;

3.7 Creating the project's community

3.7.1 Communities Outreach

One of the objectives of HYPERION project was that it would take into account the local eco-systems in the CH areas, mapping out their interactions and following a truly integrated/sustainable reconstruction approach (technical, social, institutional, environmental and economic level), **by incorporating active communities participation** (using the PLUGGY social platform[8] and an equivalent mobile application) and by supporting new business models based on the concept of a "load-balancing" economy, (using an algorithm that acts like a "reverse proxy", distributing client traffic across different companies within the same sector) and offering financial risk-transfer tools that can ensure the immediate funds availability to fuel timely build-back-better efforts.

As it is obvious from that one of the main challenges to be tackled in the project was **communities' participatory** aspects to the overall resilience and reconstruction planning to be fostered.

For that reason, HYPERION formed early in project's cycle the **Communities of Practices (CoP)** (WP2). This task gathered the current practices, needs and expectations from the end-users of HYPERION consortium (cities and cultural authorities), which were complemented with inputs to be obtained from the Advisory Board (AB) through different means (e.g., questionnaires, interviews, focus groups, workshops, combination of previous methods), as well as external stakeholders who were invited by the project to formulate a sort of Communities of Practice group. In addition to the collection of inputs from the stakeholders, this task carried out a deep analysis of all technical, regulatory and financial aspects that were considered for the development of HYPERION integrated system. This included the analysis of EU and national relevant regulations and recommendations, and the compilation of most widespread current standards, practices, and solutions/tools related to operational and strategic management, risk analysis and decision-making for more resilient historic cities, considering the different points of view from public authorities, CH sites' operators, and other relevant stakeholders.

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[8] The coordinating partner ICCS is also the project leader and the responsible for the social platform of the PLUGGY project: https://www.pluggy-project.eu

3.7.2 Networking & Knowledge Exchange

To ensure the sustainability of the institutional changes towards Improved Resilience & Sustainable Reconstruction of historic areas to cope with Climate Change & Extreme Events and the impact of the project, it was critical to engage partners' stakeholders strategically. Alliances were being pursued to gain support for actions within the partners' organisations, for instance seeking opportunities for joint initiatives, but also to target a wider audience outside the partners' organisations.

All partners had worked to "bring all actors on board", organising regular "core team" meetings, involving cultural heritage and novel technologies hubs in key decisions. These efforts were contributing to the development of new communities of practice within each performing partner, taking different forms depending on each partner's peculiarities: groups of action, network, internal advisory groups etc.

Joint initiatives have also been organised inside every partner (e.g. being involved in broader events with "corners" dedicated to Cultural Heritage protection and potential impact of Climate Change).

Furthermore, the partners were well-networked at a regional/national level with research governing bodies, scientific and professional associations and experts' networks. The partners' networks and relations were harnessed to reach out to other stakeholders and disseminate the project's learning beyond organisations.

This was pursued by:

- ✓ engaging with other organizations to obtain a multiplier effect and increase the number of interested parties. As channels, partners are considering organising small events, webinars and/or personalised mailing to key stakeholders;
- ✓ participating in H2020 networking and mutual exchange events, targeting stakeholders on a national or international level;
- ✓ Maintenance of a permanent flow of information;
- ✓ Developing partnerships with other projects and other European organisations engaged in supporting research and innovation;
- ✓ Contribution to capacity building. Input from stakeholders about new developments can feed into capacity building by acquiring and channelling the information that will contribute to innovations;
- ✓ Interrelation with global organizations for expanding level of scope;

Additional activities potentially useful to leverage the stakeholder engagement were indicative:

- ✓ invitation to subscribe to HYPERION newsletter;
- ✓ invitation to events;
- ✓ invitation to share contents to be published on HYPERION website;
- ✓ interaction via social media;
- ✓ interviews to be published on HYPERION channels;
- ✓ Participation of partners at events of external stakeholders;

The communication managers of related projects funded under H2020 were invited to share in their newsletter's details of the HYPERION project and the link where their partners and stakeholders can sign up for different media.

3.7.3 Channels to reach specific communities

Apart from the Communication channels mentioned above, specific communities were reached via the Development of the Communities' Engagement ICT Tool.

ICCS was responsible for the development of the ICT tool for enabling Communities engagement in HYPERION. The tool was based on PLUGGY's Social Platform and Curatorial Tool, an open-source platform specializing on the preservation and promotion of everyday all-around heritage, using crowdsourced techniques.

The HYPERION Communities' Engagement ICT tool utilized PLUGGY's extendibility capabilities in order to create a) an extension to PLUGGY's curatorial tool to enable citizens to create stories about the deterioration of CH sites, geo-locate the sites and also provide specific information, b) an external source plugin to allow PLUGY to retrieve data from the Galileo imagery, the Copernicus data and Euro-CORDEX and c) a specialized mobile phone app, also utilizing PLUGGY's API, for the retrieval of the stories created in (a) and their innovative presentation to users, in order for them to experience the story and better understand the changes imposed by climate change and extreme events. The ICT tool is publicly available for Android devices since May 2022 and it was showcased in several communication and dissemination events (European Bauhaus Festival 2022, Training & Demonstration Event in Granada, Final Training & Demonstration event in Venice) as well as on HYPERION's website, various social media channels, Newsletters and Press Release. The ICT tool is available for download [here](#).

3.7.4 Involving communities

The following guidelines underlined the approach to involve communities in HYPERION:

  a) Recognition of current environment to identify leading forces;

Engagement was based on strong foundations by recognizing and categorizing all potential players that could have a role in establishing the state-of-the-art of the stakeholder landscape relevant for HYPERION (see Communities of Practices).

  b) Reference to existing contexts for action, coherent policies and joint support of protocols;

In its efforts to deploy the project's approach to stakeholder engagement, several European frameworks that underpin societal challenges were engaged. The Responsible Research and Innovation (RRI), as specified by the European Commission, the FAIR principles for accessible, and reusable data, among others, were at the core of all discussions held with stakeholders and were

raised as drivers of the innovation process. Furthermore, the vision of the European Open Science Cloud (EOSC) was also a powerful setup that HYPERION had be working towards.

c) Constant exchange of information;

The importance of engaging with stakeholders was to induce steady information flows from which the project partners could draw the necessary knowledge and information. This guaranteed that the stakeholders, and major partners, had actual influence on the outcome of the project by providing input through consultations, the events and via the organised conferences.

d) Efficient communication;

Given that targeted audiences were diverse and some were placed outside the domain of the project, a strong effort had to be devoted to engaging the stakeholders and, specifically, the public domain that could push innovation on policy making. To respect their position, level of involvement and potential time constraints, HYPERION sought to ensure that stakeholders would benefit equally from their participation in events and surveys. In order both parties to benefit from engagement encounters, a two-way flow of useful information was deployed. It provided a win-win scenario for both project community and stakeholders.

4 Detailed Dissemination procedures and activity report

IEMC has provided the consortium with detailed Dissemination procedures to be followed during the implementation of the different activities, with the basic objective of producing high-quality communication materials, avoiding overlaps and disclosure of confidential information.

The publication or presentation of work done within the framework of HYPERION or any other communication and dissemination activity related to the HYPERION project had to be approved beforehand by the HYPERION Project Coordinator and the Project Coordination Team (PCT).

In Annex 1, the step-by-step procedures for partners' dissemination activities is presented in detail.

In addition, to ensure constant monitoring and tracking of the dissemination and communication activities carried out by HYPERION consortium, a Dissemination activities report had been set up, to be filled in within ten working days after the realisation of the approved dissemination activity, accompanied by the presented dissemination material (final paper, presentation, poster etc.).

The detailed Dissemination procedures, together with the Dissemination activities request table and the Dissemination activities report, were available on project's repository platform - REDMINE.

4.1 Acknowledgement

All the communication and dissemination activities included that the project had received funding from the EU using the EU emblem, the funding information text and the disclaimer excluding Commission responsibility as showed below:

HYPERION project is co-funded by the European Union (EU). All dissemination, communication and publication materials (in any form, including on-line or electronic forms) and every infrastructure, equipment and major results, clearly acknowledged the receipt of EU funding through:

- The display of the EU emblem
- The acknowledgment of EU funding by including the following text:
    - For communication and dissemination activities:
      "This project has received funding from the European Union's Horizon 2020 research & innovation programme under grant agreement no 821054."
    - For infrastructure, equipment and major results:
      "This [infrastructure] [equipment] [insert type of result] is part of the HYPERION project. HYPERION has received funding from the European Union's Horizon 2020 research & innovation programme under grant agreement no 821054."

A complementary disclaimer was also included whenever using the funding logo.

"The contents of this publication are the sole responsibility of (name of the implementing partner) and do not necessarily reflect the opinion of the European Union."

Another complementary disclaimer was also included in publications as well as in produced communication or dissemination material.

"Content reflects only the authors' view and European Commission is not responsible for any use that may be made of the information it contains."

5 COVID-19: adaption of Communication and Dissemination activities to the global pandemic

The beginning of the year 2020 brought a difficult situation to deal with. COVID-19 paralyzed every physically presence. The consortium had to deal with this fact, re-organizing the activities of the project, such the most expected ones in relation with exploit the results with meetings with local stakeholders to hold discussions about HYPERION implementation in those places.

COVID-19 affected in the agenda established for the first months of the project, in terms of promotion and dissemination of HYPERION project. COVID-19 adaptation actions were mainly focused on using online channels in order to showcase results and establish further discussions and negotiations. Additionally, HYPERION participated in online events and conference to ensure interactive engagement with different audiences.

The move to the online sphere due to C-19 was probably also helpful, and time will tell if a return to offline events will have any significant impact on this form of online communication.

COVID-19 outbreak caused also problems with stocks of electronic components worldwide. Respectively HYPERION Project faced significant delays in delivery of components and materials (essential for the implementation of technical activities in the pilot sites) and difficulties in installing technical equipment on pilot sites and visiting them for maintenance.

6   Partners' contribution

As the HYPERION project intended to have a great impact both on a national and international level, a joint effort from its partners was needed. Project partners agreed to always keep track of their own progress, while continuously reporting about their dissemination activities. The Table that follows presents the Dissemination Activities that every Partner of HYPERION Project had implemented.

TABLE 12: DISSEMINATION PLANS FOR EACH ONE OF THE HYPERION PARTNERS

Partner	Dissemination Activities
ICCS	ICCS using its large network of partners, disseminated the vision, developments and HYPERION's results through various channels. ICCS conducted presentations in important Events & Conferences. It actively participated in Horizon Booster Programme along with the sister projects ARCH and SHELTER and co-organized all the activities of the EU Task Force for Climate Neutral and Resilient Historic Urban Districts. Moreover, it disseminated and communicated results and significant activities through its Social Media channels, Website and Newsletter. These partners emanated from the following relevant project: SCENT, WeObserve, Cirf4Life, NextGen and PLUGGY, where ICCS is directly involved. Moreover, ICCS employed its social media accounts to further communicate *HYPERION* news to the relevant communities and general public
FMI	FMI used FMI web pages, press releases and twitter for dissemination. The Finnish portal on adaptation to CC, operated by FMI, was used to spread information about the project outcomes. FMI is part of the consortia (EU-Copernicus Info-sessions) responsible for training and disseminating related to Copernicus services (climate, air quality) that were used as project dissemination channel
RG	Presentations in international workshops and conferences; whitepapers drafting, contribution to dissemination material, contribution to relevant open standards bodies
OSLOMET	OSLOMET disseminated project results by publishing them in international peer-reviewed scientific journals & international/regional conferences in the field of building physics, HAM, building simulation and materials. The project activities and results were uploaded on OSLOMET's websites and social media and on the three supporting partners from Norway. A special webpage was created for the purposes of open access to the HT tool along with guidelines and project results relevant to its performance.
NTUA	NTUA used publications to widely disseminate project results to the relevant channels under the CH inspection, CV methodologies, multi-spectral/hyperspectral imaging and ML, DInSAR methodologies, resilience and vulnerability assessment. NTUA also used its established channels for disseminating in the CV-based applications, structural/resilience assessment entities, non-destructive testing and industrial users through newsletters, relevant conferences and EC events.
RISA	The initial proposal of RISA for disseminating HYPERION followed 4 different lines: 1) Promoting HYPERION's website: RISA plans to reserve a public accessible space for promoting project ideas, including groups of discussion about topics of interest or related with HYPERION. 2) Liaison with other cultural related projects within the scope of H2020, especially those in which RISA is also directly or indirectly involved into. This gave very quick and efficient interactions for a fruitful information interchange, and cooperation on common ideas that could serve for both projects. 3) Attendance to Journals, events, congresses to promote HYPERION project: RISA contributed with papers, presentations and dissemination activities on those relevant events to this CH-oriented topic. In particular: a) Attendance and paper presentations to annual congresses; b) Attendance and paper presentations to annual congresses coping with CH within contents; c) other events and workshops.
UNIPD	UNIPD disseminated in the scientific community at relevant conferences, at meetings organised in the frame of the project, and on open access papers in ISI international journals in the field of cultural heritage, materials science, archaeometry, conservation and restoration. Dissemination

Partner	Dissemination Activities
	was also addressed to public authorities and a wider audience in relevant conferences, persuaded that also people in the society should be aware of the CH threaten and protection issues.
UGR	UGR disseminated the influence of CC in CH and the CV-based application creating a free-elective course (1 credit ECTS) after the end of the project that will be repeated at least once the next 5 years. The course will be open to students of the Architecture and Civil Engineering Schools and to professionals. Journal publications and congresses were also used.
AuTH	Dissemination in the scientific community mainly included submission of publications in scientific journals in the field of climate, meteorology and atmospheric physics, scientific reports to be prepared within the frame of the project, as well as presentations of project results in relevant conferences. HYPERION was also presented in a dedicated section on the web page of the Laboratory of Heat Transfer and Environmental Engineering.
CYRIC	CyRIC exploited its participation in the Business Innovation Center (BIC) network for disseminating project results towards a vast network of possible business users. The project results were also disseminated through presentations and printed material distribution in events that the company regularly organises in their privately-owned Incubator (Gravity Ventures). Finally, a video was prepared for explaining the project concept to the general audience. The video was used by the company (and the entire consortium) for dissemination through the web, social media and the press.
IUAV	The project results were mainly disseminated by means of scientific publications submitted to ISI international journals in the field of cultural heritage, archaeometry, conservation, restoration and materials sciences. Data collected were also presented in relevant conferences as well as shared with local public authorities operating for the conservation of the Venetian historical buildings.
VFK	VFK's official Web site and Kulturarv's own FB-channel was used to publish and disseminate the concept, ongoing work and results from the project. In addition, talks and presentations were given to regional and local politicians and policymakers in Vestfold County and Tønsberg Municipality. Attendance and presentations in relevant congresses, seminars and workshops at national and international level were also given.
CVI	The City of Venice worked in close collaboration with the project local partners (IUAV, UNIPD and the associate partner Venice's Superintendence for CH) to disseminate and raise awareness about project activities and results among decision makers, experts in the field and stakeholders. The aims were to get well informed of the major achievements and then to encourage them to use our outputs so as to improve the interventions to protect Venice's cultural heritage from the effects of climate change. General dissemination activities contributed to grant project visibility to the citizens.
DR	Social networks, the city's website, local media portals, meetings with relevant stakeholders and liaisons with other cities through the existing networks.
EFA DOD	EFADOD, assisted by NTUA, disseminated and raised awareness about project activities and results among decision makers, experts in the field and stakeholders.
ADG	ADG used its own means to communicate the results: local newspaper and TV. The results of the project were also communicated to the Association of Architects.
UGR	UGR along with ADG organized a congress, at national level, to communicate *HYPERION* results to the professionals involved in CH maintenance.
IEMC	Dissemination through UNESCO channels, participation in conferences and relevant events, promotion to relevant stakeholders.
RED	Part of RED staff was involved in academic activities and scientific research; thus the team disseminated the results of the projects trough teaching activity, submission of publications to scientific journals and presentation at conferences in the field of disaster risk management and reduction. RED exploited also its connections with insurance companies to raise awareness about the *HYPERION's* project innovative output and methodologies. *HYPERION* is also presented in a dedicated section on RED's web page.

7 An assessment of reaching HYPERION Communication and Dissemination KPIs

The effectiveness of HYPERION's communication and dissemination activities were periodically measured. Periodic evaluation was considered very important to guarantee that all identified target indicators and audience were properly reached and provided with appropriate information and content on project's assets and to generate feedback and get insights on what works and what needs refinement.

Therefore, IEMC, being the WP9 Leader regularly monitored progress against KPIs as set out in the project's DoA.

The targets, actions and channels used are not the same for communication as for dissemination.

The communication plan was implemented at the beginning of the project and aimed to increase the project's visibility. Its audience was initially wide - the general public - and became targeted as the project progresses. The communication actions targeted both end users and general-interest media.

The dissemination plan focused on sharing the results of the project. Its implementation started when the project attained a certain level of maturity and targeted stakeholders identified in the analysis made beforehand. Dissemination actions targeted both the scientific and expert audience.

TABLE 13: TARGETS, ACTIONS AND CHANNELS USED FOR COMMUNICATION & FOR DISSEMINATION

	Communication	Dissemination
Period	Throughout the project	At an advanced stage of the project
Targets	General public Medias	Scientific and industrial experts Policy makers
Objectives	Inform about the project progress Increase visibility and commitment	Share project results
Channels and Tools	Website Newsletters Press release	
	Social Media Videos Public events Scientific articles	LinkedIn Workshops Scientific publications and events Online repository Industry press and events

The communication and dissemination plan sought to increase the reach of the project results. However, to measure the impact, it was essential to define relevant KPIs. In the following table, one can review HYPERION's Communication & Dissemination KPIs.

Activity	Description	When
Creation of recognisable brand identity	Development of the HYPERION brand: To ensure the impact of the project HYPERION develops an EU wide recognisable brand that visually translates the project idea and concept in all outreach materials and events.	M3 (done)
KPI	**1 project logo, brand guidelines, HYPERION templates, illustrations and graphics**	
Communication kit	Leaflets and posters based on HYPERION's visual identity were produced gradually until M12. This material is distributed at congresses, workshops, exhibitions and important events. Around major milestones (M12, M42), e-Newsletters are sent to the HYPERION's stakeholder network (CoP) and to relevant initiatives (H2020 and beyond). A Video to present the main objectives and target outcomes of HYPERION were produced in the early stages of the project. A video was also produced to showcase our proposed HYPERION solution in the various events.	M01- M42 (done)
KPI	**2 leaflets, 1 poster, 2 animation video and 3 Newsletter issues**	
Dedicated project and code websites	Launch and maintenance of the HYPERION website in M5. Its basic objective is to create an easily accessible public platform for dissemination of deliverables, open access publications, presentations, newsletter issues etc. Interactivity and updated content attract attention and repeated visits. In addition, a GitHub[9] open software development site will be created to attract research community participation and long-term engagement in the creation of the SG simulator interfaces, the MHVAT toolkit and the HRAP engine.	M5-42, for min 5 years after end of project
KPI	**1 official project website; 10,000 visitors per year combined**	
Social media channels	Social media are used to reach the target audience frequently and cost-efficiently, and to strengthen the HYPERION stakeholder network (Communities of Practice- Task 2.1). Basic information on HYPERION and its concept is also disseminated through the partners' existing social networking pages as well as the H2020 social media accounts.	M01-M42 (done)
KPI	**Active HYPERION ResearchGate, LinkedIn, Facebook & Twitter accounts. At least 200 members per account by M42. At least 4 announcements per partner in individual social media accounts; at least 6 announcements in H2020 social media sites. In total, minimum 150 posts/year expected**	
Conference presentations	HYPERION had presentations and demos in relevant international conferences and other events. Special sessions and other project events at well-known conferences are organised.	M12-M42 (done)
KPI	**Minimum 3 presentations per year targeting at least 10 presentations in total**	
Peer-reviewed publications	Effort was made to publish papers in well-respected and highly rated peer-reviewed journals. This task was undertaken mostly by the research partners, and the publications cover several project fields of work. Particular effort were made to secure Open Access (OA) to all interested persons, mainly through the project website but also through respective OA repositories such as OpenAIRE.	M18- M42 (done)
KPI	**At least 2 publications in scientific ISI journals**	

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[9] GitHub software development platform: https://github.com/

Activity	Description	When
EU dissemination networks & Mass Media	The consortium, always in close collaboration with the EC personnel, disseminate the project vision and main results through various means offered by the EU, e.g., Horizon Magazine, research*EU results magazine, EuroNews TV etc.	M06-M42 (done)
KPI	**At least 2 press releases per year; at least 4 media articles in popular and/or specialised media; At least 1 interview on Radio and/or TV; Participation in priorised EU events**	
Training & Demo events	Training sessions in relevant events or online: HYPERION puts emphasis on "educating" the communities and relevant organisations about the need for additional advanced research to cover their requirements.	M24-M42 (done)
KPI	**≥ 1 online sessions, minimum 3 Training Events; 3 Pilot demonstrations; Training package; Attendance ≥ 50 non-specialist attendees**	
Final Event	A conference was organised at the end of the project to demonstrate to a large number of stakeholders the system developed and results achieved.	M42 (done)
KPI	**1 HYPERION conference (more than 80 participants in total); Conference proceedings and report**	

In the following graphic one can see the reached goals during HYPERION project's lifetime. As it is clearly stated all the KPIs were successfully met and many of them had exceeded the expectations. The later were the targeted general public (via the social media and the website) and the Scientific publications and events that were used as the tool for dissemination.

Deliverable	Goal	Progress	Timeline / Achievements (M1–M48)
9.1			
Corporate ID & templates	1	100%	M1–M3
9.2			
Project Website	1	100%	M1–M5
Web visits	10,000/year	133%	53.369 views in 42 months
Twitter account	1	100%	M1
Twitter-Followers	200	180%	361 Followers
LinkedIn Account	1	100%	M1
LinkedIn- Connections	200	160%	321 Followers
Facebook Account	1	100%	M1
Facebook Likes	N/D	100%	534 Likes
ResearchGate*	1	100%	M7 — ResearchGate retired the Projects feature
9.3			
DCP (v1)	1	100%	M6
Established relation w/EU projects	Goal	100%	Achieved
9.4			
leaflets	2	250%	5 (M9)
poster	1	300%	3 (M10)
animation video	2	150%	3 (M10)
Newsletter issues	7	100%	7
Conference presentations	10	170%	17
Peer-reviewed publications	2	2200%	44
EU dissem. networks & Mass Media	Goal	100%	7 press releases, 27 media articles, 3 presentation on Radio, 1 presentation onTV; Participation in 9 EU task force's meetings & in 2 EU Events
Training & Demo events	Goal	100%	1 online sessions, 3 Training Events; 3 Pilot demonstrations; Training package; Attendance 50 non-specialist attendees
Final Event	1	100	1 (M47)
9.5			
Annual Magazine	1	200%	1 (M22); 1 (M36)
9.6			
Report on Standards &Liaison Activities	1	100%	8 Liaison Activities
9.7			
DCP V.2	1	100%	
9.8			
Information Packs V2	1	100%	
9.9			
Annual Magazine V2	1	1	1 (M48)

KPIs identification depends closely on the objectives previously defined in the communication and dissemination plan.

The most relevant KPIs, according to the objectives identified, are presented below (references to the KPIs values are shown in §3.5-Project's Communication Channels):

VISIBILITY

Visibility indicators aim to measure the reach of communication actions:

Social Media

- Total number of subscribers/followers in all Social Media Channels: 1470;
- Number of views on three (3) videos: 964;

Website

- Number of unique users 29.550;
- Rate of new sessions 73.8%;

Newsletters

- Number of subscribers: 123;
- Rate of deliverability: (indicative for the last issue) 59.3% opening rate and 12.1% clicks;

ENGAGEMENT

Engagement indicators aim to measure the success and interest of communication actions:

Social Media

- Total number of interactions (likes, shares, comments…): 534 Likes in Facebook;

Website

- Bounce rate 25.53%;
- Number of pages visited per session 3.16;

Newsletters

- Opening rate (indicative for the last issue) 59.3% opening rate and 12.1% clicks;
- Unsubscribe rate 0%;

CONVERSION

Conversion measures the effectiveness of a communication action:

- Number of subscribers/registers to a newsletter or webinar: 123 subscribers in newsletter, 67 participants in final event;

8   An assessment of reaching HYPERION target audiences

This chapter focuses on communication and dissemination activities in terms of how well the project was able to reach its target audiences. It should be noted that while the project defines its key target

audiences, the numbers of people to be reached were not defined (with the exception of the training and final events as reported above).

Information about the number of individuals and organisations that were reached from among the target audiences discussed below were collected across from all the members in the HYPERION consortium. These figures always represent the minimum number reached because it was not always possible to determine which target group a participant belonged to (e.g. in the case of the mid-term and final events) or to distinguish the target group that website visitors, social network followers, and newsletter subscribers belong to. And, of course, sometimes people belong to more than one target group.

TABLE 16: THE NUMBER OF PEOPLE FROM TARGET AUDIENCES

Target audience	Main HYPERION communication instruments	Number of people reached
Scientific Community	Scientific Publications, Conference presentations, WP2-WP8 deliverables, Final Event	>900
Private Sector	WP6 and WP10 reports, Bilateral meeting, Final Event, Social Media, Press Release, Presentation in New European Bauhaus Festival	~38
Public Bodies	Communities of Practice group, WP2, WP5, WP6 and WP7 reports, demo sites, bilateral meetings, final event	>200
Policy Makers	Communities of Practice group, WP2, WP5, WP6 and WP7 reports, bilateral meetings, final event	~45
General Public	Media Kit, Social Media, Final event, press release	>380

9   Planning Exploitation

The current section summarises the HYPERION's plan related to the exploitation of the project results.

The four main characteristics because a forward-looking exploitation approach is needed in Horizon 2020 funded projects are listed below and they also refer to HYPERION Project Exploitation Plan.

- After the dissemination of results to the ones who can best make use of it (target groups, beneficiaries), exploitation describes the pro-active adoption and further use of these results by the target groups for their own purpose;
- Exploitation concretises the value and impact of the R&I activity for societal challenges;
- Exploitation can be commercial, societal, political, or for improving public knowledge and action
- Project partners can exploit results themselves, or facilitate exploitation by others (e.g. through making results available under open licenses);

In HYPERION project, exploitation (or use) will be done through research activities, commercial exploitation activities, skills and educational training, and policy making. It has been agreed that each partner takes measures to ensure 'exploitation' of its results by:

- using them in further research activities (outside the action);
- developing, creating or marketing a product or process;

This activity will be pursued up to four years after the project's end.

Exploitation of their results will be performed either by single partners directly (e.g. for further research or for commercial or industrial exploitation in its own activities) or by others (other beneficiaries or third parties, e.g. through licensing or by transferring the ownership of results).

9.1   Open access and IP

Peer-reviewed scientific publications

We are open, i.e. we support full open access: Scientists ensured that electronic copies of peer-reviewed scientific publications have become freely available to anyone and in all cases **no later than six months after publication.**

Peer-reviewed articles will continue to be available:

1) in the **institutional repository** of the institutes where the authors work. Scientists will provide communication to the project office with indication of the open repository used;

2) in the **subject repository for the specific topic of the article**, if available;

3) on the HYPERION's community in **Zenodo** https://zenodo.org/communities/hyperion_euproject/;

9.2   Online Exploitation Instruments

The online exploitation instruments will form the core of the exploitation plan for HYPERION project as this will be able to address the majority of targets of a forward-looking exploitation approach. Considering the visibility of these online tools and their ability to be shared and circulated immensely, a lot of focus needs to be channelized here.

9.2.1   HYPERION Network and Communities

A national network will be created in each participating country. The members of the networks will be representatives of all stakeholders´ target groups.

Via HYPERION website visitors will continue to be able to register to the network and exploit all the project's results, outcomes and deliverables.

All partners will have to look for new members to the HYPERION Network after project's conclusion.

9.2.2   Horizon Results Platform

The European Commission-supported Horizon Results Platform provides a free, online space to showcase the result(s) of HYPERION project at no cost and in a user-friendly way. The platform is hosted under the Funding & Tenders Portal and it is easy to manage the results in a central and safe environment.

Through this platform (profile already created) HYPERION will be able to reach out to the desired audiences and key stakeholders, whether they are policymakers, investors, research and technology organisations, industry or academia. In order to find HYPERION result(s), external visitors are able to use search criteria.

Depending on the nature and needs of your result(s), the platform can trigger different opportunities and services, ranging from pitching events with investors, business development plans, innovation management, IP management, further collaborations, and much more.

9.2.3   Social Networking

Although social networking is a contemporary means of dissemination, it will be a very crucial form of exploitation to the target audience due to the open-source medium of Facebook, LinkedIn or Twitter. Even after the completion of the project, when there will be financial and manpower constraint, these channels will result to raising awareness, informing and possibly engaging a broader target group of policy makers, academia, civil society, the private sector and the general public, in a most cost and time efficient way, regardless of geographic and time factors. Details on social media are provided in the previous chapters.

9.2.4   Videos

The short videos prepared for dissemination can also be used as an exploitation tool to promote research and innovation potential through YouTube the open-source software that has no cost associated with this. It will allow multiplicity of awareness of important initiatives in different scientific fields in different European countries even after the project completion.

9.3   Defining partners' exploitation responsibility

The project team will also decide on the following:

1.   Establishing the Exploitation Committee

In order to encompass and manage the concrete future measures and responsibilities for maintaining and expanding long term impacts of the HYPERION Project, an Exploitation Committee will be established. This Committee will be formed by a maximum of 5 project partners from the current consortium. The Exploitation Committee will be responsible for managing the overall progress of the exploitation activities and outputs perceived in the Exploitation Plan and in supporting the implementation of these activities.

The Exploitation Committee will be established by the end of this month and will be active starting the end of the project. In this sense, the following responsibilities are perceived for the Members of the Exploitation Committee:

- Managing and guaranteeing the development and quality of the outputs developed/delivered/updated during the exploitation phase;
- Disseminating the exploitable results throughout their database of contacts;
- Bi-annual virtual meetings between the Committee Members to discuss the current status of each exploitable result;
- Managing the inputs from other partners involved in the development of the exploitable results;

2.   Individual partner exploitation activities/ Formation of exploitation team

Each partner will be asked to identify briefly by the end of the month their roles in exploitation whether in regional, national or international level. This will allow a structured process of exploitation to be

aimed at the target group predefined at the beginning of the project. A paragraph summary of involvement in such exploitation of results after the project life cycle is requested to be planned.

9.4   HYPERION's Sustainability

The long-term sustainability of the project's outputs is guaranteed by the following actions and solutions:

- Following the closure of this project, the HYPERION's partners involved are dedicated to run HYPERIONApp;
- All the materials and publications will be open access;
- HYPERION project's webpage will still be active for five years and thanks to its interactivity, the webpage will be a platform for dynamically changing interactions, debates, and opinion;
- HYPERION's Research community will keep active all repositories of produced Publications (Papers, Books) Posters, Presentations, Data, Software, etc during the project's lifetime and further research activities and publications containing new insightful results will also be included;

9.5   Scaling up Project's Results

Scaling up means taking successful projects, programs, or policies and expanding, adapting, and sustaining them in different ways over time for greater development impact.

The answers to the questions of what to scale up, how far, how long, and in what dimension will be answered by the end of the month after the Partners closing-up meeting.

So far there is a positive decision to scale up HYPERION project but it lacks a reflection on its optimal size. The project aims to constitute a good practice example and to contribute towards the direction of a multi-hazard risk understanding, better preparedness, faster, adapted and efficient response, and sustainable reconstruction of historic areas in EU.

As a first step in order to drive forwards and scale-up HYPERION's outcomes, partners will contribute to numerous proposals and project submissions in a coordinated effort, as part of the current Horizon Europe funding round deadline.

If programme partners reach a consensus to take HYPERION to a larger scale, then HYPERION team will plan its vision and a strategy for how to proceed beyond the project implementation. Evidence will be used to convince others of the credibility of the project's results and establish demand for it to be implemented. It is also essential to determine whether external and internal partners will continue to support the program, or whether new partners will be required.

Lastly, the consortium is optimistic to launch regional implementation projects within the next two years. For some issues like widening the stakeholder base towards other industrial sectors und public services the potential could not be fully tapped. However, a sound foundation was laid to support the exploitation efforts of the project partners.

10 Conclusion

The final produced document presenting HYPERION dissemination and communication plan, is a fundamental point for the WP9 entire strategy and moreover for the entire project, since it gives a precise status of the activities done during HYPERION lifetime and an overview of an Exploitation Plan after the end of the project.

Considering its necessary implementation and updates during the project's lifespan (project development, possible changing etc.), it was a living document to be shared between partners so that each consortium member could suggest and insert activities / participation in events /press and media activities done by itself or by its own partners.

To that end HYPERION project partners have fulfilled their contractual obligation to ensure dissemination of their results for research use and/or direct exploitation.

Although some of the planned activities have been postponed, reduced, and/or even cancelled due to the COVID-19 pandemic (especially personal meetings), HYPERION successfully managed to fulfil the Dissemination and Communication targets that were put in the first DCP (D.9.3).

Overall, the expectations were met and even overachieved with respect to the publications. The HYPERION project showcased successfully its results and attracted the target audiences. The final conference belongs without a doubt among the biggest achievements of the project communication.

Finally, dissemination was also important because it helped to ensure that the results of a research project were used effectively. By sharing the results with others, researchers could help to build partnerships, collaborations, and networks that can help to drive the field forward. This can help to ensure that the results are used in the most effective way possible, and that they have the greatest impact on society.

In conclusion, dissemination was an important aspect of the project's implementation process, and it was given the attention and resources that it deserved. By disseminating the results of the project, researchers could help to increase its visibility, impact, and influence, and can help to drive the field forward. Dissemination of HYPERIONs results was also a key factor in reducing future research waste, guiding further work, and shaping policy and practice.

> **DISSEMINATION and COMMUNICATION** in HYPERION project meant to provide to all the various target groups of the project with the same high-quality type of project related outputs and results in regular intervals, in order to allow them exploiting these results and outputs for their own needs, and by doing so simultaneously creating options for sustainability also after the project has ended.

11 References

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[2] *Communicating and promoting your project*, retrieved Nov 2019 https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/communication_en.htm

[3] https://ec.europa.eu/easme/sites/easme-site/files/howtocommunicateyourproject_vertical.pdf

[4] https://whc.unesco.org/en/climatechange/

[5] HYPERION D9.3 Dissemination and Communication Plan, 2020, https://www.hyperion-project.eu/wp-content/uploads/2022/09/Deliverable-9.3_final-1.pdf

[6] S. W. e. a. Jörg Scherer, "Making the Most of Your H2020 Project - Boosting the impact of your project through effective communication, dissemination and exploitation," The European IPR Helpdesk, March 2018.

[7] "Participant Portal H2020 Online Manual," [Online]. Available: http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grantmanagement/dissemination-of-results_en.htm. [retrieved May 2020].

[8] European Commission Dissemination and exploitation strategy for Horizon Europe, 2022 https://research-and-innovation.ec.europa.eu/strategy/dissemination-and-exploitation-research-results_en#:~:text=The%20use%20of%20results%20in,improving%20public%20knowledge%20and%20action [retrieved May 2022].

Annex 1 - Communication & Dissemination Procedures

1. Description and purpose

The publication or presentation of work done within the framework of HYPERION or any other communication and dissemination activity related to the HYPERION project had to be approved beforehand by the HYPERION Project Coordinator and the Project Coordination Team (PCT).

2. Basic objective of the procedures

- Produce high quality HYPERION publications and presentations;
- Avoid overlaps and possible disclosure of restricted or confidential information;
- Keeping an appropriate registry of the dissemination activities of the project.

3. Step by step procedure:

1. At least two weeks before the publisher's or organizer's deadline for submitting a paper or proposal for presentation, the initiator of the dissemination activity:
    - registered the planned activity by adding a new row at the bottom of the list of Dissemination requests (available at: https://redmine.iccs.gr/projects/hyperion/dmsf?folder_id=7189) and uploads the updated excel at the same folder;
    - stored the abstract, paper or poster at: (https://redmine.iccs.gr/projects/hyperion/dmsf?folder_id=7198);
    - informed via email the HYPERION WP9 Leader (pyannakopoulos@yahoo.co.uk) and ICCS Communications Manager (sophia.adam@iccs.gr) about its inputs.

2. The WP Leader sent the request within 2 days to the PCT for approval, modification or rejection;

3. The PCT members had to reply to the HYPERION WP9 Leader (pyannakopoulos@yahoo.co.uk) and ICCS Communications Manager (sophia.adam@iccs.gr & later irini.krimpa@iccs.gr) within 5 working days; no response was considered as approval;

4. The WP9 Leader informed the initiator about the decision.

In case of:

a) Approval: The initiator was proceeding with the submission and realization of the planned dissemination activity;

b) Conflict/objection: Any PCT member could object to the proposed dissemination activity, for example in cases of overlaps or in risk of disclosure of restricted or confidential information. The issue was discussed among the Coordinator, the WP9 Leader, ICCS Communications Manager and the involved partners;

**No conflict was created during projects lifetime and when further material was needed then WP9 Leader informed the partner and required additions. Then the material was proposed again to WP9 Leader and ICCS Communications Manager.

Within 10 working days after the realization of the approved dissemination activity, the initiator of the dissemination activity:

1. added it in the bottom of the list in the appropriate sheet in the excel, entitled "Conducted Disseminations Activities for reporting" (https://redmine.iccs.gr/projects/hyperion/dmsf?folder_id=7187) and uploaded the updated excel at the same folder https://redmine.iccs.gr/projects/hyperion/dmsf?folder_id=7187
2. completed a dissemination report (available at: https://redmine.iccs.gr/projects/hyperion/dmsf?folder_id=7187) and uploads it at https://redmine.iccs.gr/projects/hyperion/dmsf?folder_id=7187
3. uploaded the final paper, presentation, poster, or other presented material in the appropriate folder within https://redmine.iccs.gr/projects/hyperion/dmsf?folder_id=7187
4. uploaded photos from the activity, if relevant, at https://redmine.iccs.gr/projects/hyperion/dmsf?folder_id=7187
5. informed via email the HYPERION WP9 leader (pyannakopoulos@yahoo.co.uk) and ICCS Communications Manager (sophia.adam@iccs.gr)

NOTE:

If partners wished to present or release material already approved as public presentation and material then no formal approval is required, but the HYPERION WP9 leader (pyannakopoulos@yahoo.co.uk) and ICCS Communications Manager (sophia.adam@iccs.gr and later irini.krimpa@iccs.gr) had to be informed.

In case a partner wished to organize a workshop or special event related to HYPERION, then the approval of the HYPERION WP9 leader (pyannakopoulos@yahoo.co.uk) and ICCS Communications Manager (sophia.adam@iccs.gr and later irini.krimpa@iccs.gr) and the information of the Coordinator and the PCT was also needed 2 months before the realization of this dissemination activity.

4.   Dissemination of another party's unpublished results -

Although a clear procedure was set from the D.9.3, there was no case that a partner wished to include another partner's results in a dissemination activity (which are not published) and there was no need to first obtain that partner's prior written approval.

5.   Publications in open-access platforms and journals and presentations at multiplier events

In Horizon 2020 Open Access to Scientific Peer Reviewed Publications has been anchored as an 'underlying principle'. This means that it has become obligatory for all projects to ensure open access to all peer-reviewed scientific publications relating to their results (free, online access for any user). Affordable and easy access to scientific information is very important for the scientific community itself, but also increasingly important for innovative small businesses. Improving access to scientific information is also about increasing openness and transparency, which are essential features of Responsible Research and Innovation and contributes to better policy-making.

This obligation of us is also well-described in HYPERION's GA, article 2.2.2.1. Data Management Plan (DMP), Data Sharing and Exploitation Policies, to ensure open access to all peer-reviewed scientific publications.

Therefore, to provide Open Access, HYPERION participants were asked:

(i) to deposit a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication in a repository for scientific publications.

(ii) to ensure open access (OA) as follows:

- Gold OA: researchers can publish in open access journals (paid open access, processing charges). OA must be granted at the latest on publication.
- Green OA: researchers can deposit the final peer-reviewed manuscript in a repository of their choice, access is granted after an embargo period. OA must be granted within six months of publication.

(iii) to ensure open access to the bibliographic metadata that identify the deposited publications.

Partners were free to deposit peer-reviewed publications in any institutional, thematic or centralized online archive they considered most appropriate. However, all HYPERION related publications were published:

- In ZENODO (https://zenodo.org/) in HYPERION's EU Project Community https://zenodo.org/communities/hyperion_euproject/. Publications registered via ZENODO were directly linked to OpenAIRE and to the H2020 project concerned and automatically display all relevant information for reporting. Publications registered;
- On the Website of the project;

Annex 2 - List of HYPERION'S Journal Publications

TABLE 17: LIST OF HYPERION'S JOURNAL PUBLICATIONS

Title	Authors/HYPERION partners	Title of journal	Publication date	Open Access	DOI/available electronically at (link)
Performance Analysis of Open Source Time Series InSAR Methods for Deformation Monitoring over a Broader Mining Region;	Kleanthis Karamvasis and Vassilia Karathanassi;	Remote Sens. 2020, 12(9), 1380;	27/4/2020	yes	https://doi.org/10.3390/rs12091380
Fine-tuning Self-Organizing Maps for Sentinel-2 imagery: Separating Clouds from Bright Surfaces;	Viktoria Kristollari and Vassilia Karathanassi;	Remote Sens. 2020, 12(12), 1923;	14/06/2020	yes	https://doi.org/10.3390/rs12121923
Structural Vulnerability Assessment of Heritage Timber Buildings: A Methodological Proposal;	Amirhosein Shabani, Mahdi Kioumarsi, Vagelis Plevris and Haris Stamatopoulos ;	Forests 2020, 11(8), 881;	13/08/2020	yes	https://doi.org/10.3390/f11080881
Probabilistic identification of surface recession patterns in heritage buildings based on digital photogrammetry;	María L.Jalón, Juan Chiachío, Luisa María Gil-Martín, & Enrique Hernández-Montes;	Journal of Building Engineering Vol 34, Feb. 2021, 101922;	06/11/2020	yes	https://doi.org/10.1016/j.jobe.2020.101922
Practical performance-based design of friction pendulum bearings for a seismically isolated steel top story spanning two RC towers;	A. K. Kazantzi, & D. Vamvatsikos;	Bulletin of Earthquake Engineering vol. 19, p.1231–1248 (2021);	02/12/2020	yes	https://doi.org/10.1007/s10518-020-01011-x
Seismic risk and loss estimation for the building stock in Isfahan. Part I: Exposure and vulnerability;	Mohsen Kohrangi, Paolo Bazzurro & Dimitrios Vamvatsikos;	Bulletin of Earthquake Engineering vol. 19, p.1709–1737 (2021);	28/01/2021	yes	https://doi.org/10.1007/s10518-020-01036-2
Seismic risk and loss estimation for the building stock in Isfahan. Part II: Hazard analysis and risk assessment;	Mohsen Kohrangi, Paolo Bazzurro & Dimitrios Vamvatsikos;	Bulletin of Earthquake Engineering vol. 19, p.1739–1763 (2021);	26/01/2021	yes	https://doi.org/10.1007/s10518-020-01037-1
Model Type Effects on the Estimated Seismic Response of a 20-Story Steel Moment Resisting Frame;	Christos G. Lachanas & Dimitrios Vamvatsikos;	Journal of Structural Engineering, Volume 147 Issue 6 - June 2021;	15/04/2021	yes	https://doi.org/10.1061/(ASCE)ST.1943-541X.0003010
Conditional spectrum record selection faithful to causative earthquake parameter distributions;	Andrea Spillatura, Mohsen Kohrangi,Paolo Bazzurro, & Dimitrios Vamvatsikos;	The Journal of the International Association for Earthquake Engineering, Volume50, Issue10;	29/04/2021	yes	https://doi.org/10.1002/eqe.3465
A Modelling Approach for the Assessment of Climate Change Impact on the Fungal Colonization of Historic Timber Structures;	Petros Choidis, Dimitrios Kraniotis, Ilari Lehtonen, & Bente Hellum;	Forests 2021, 12(7), 819;	22/06/2021	yes	https://doi.org/10.3390/f12070819
State of the art of simplified analytical methods for seismic vulnerability	Amirhosein Shabani, Mahdi Kioumarsi, Maria Zucconi;	Engineering Structures Volume 239, 15	15/07/2021	yes	https://doi.org/10.1016/j.engstruct.2021.112280

Title	Authors/HYPERION partners	Title of journal	Publication date	Open Access	DOI/available electronically at (link)
assessment of unreinforced masonry buildings;		July 2021, 112280;			
Seismic response distribution expressions for on-ground rigid rocking blocks under ordinary ground motions;	Athanasia K. Kazantzi, Christos G. Lachanas, Dimitrios Vamvatsikos;	Earthquake Engineering Structural Dynamics Volume50, Issue12;	10/10/2021	yes	https://doi.org/10.1002/eqe.3511
FLOMPY: An Open-Source Toolbox for Floodwater Mapping Using Sentinel-1 Intensity Time Series;	Kleanthis Karamvasis, & Vassilia Karathanassi;	Water 2021, 13, 2943;	20/10/2021	yes	https://doi.org/10.3390/w13212943
Structural Model Updating of a Historical Stone Masonry Tower in Tønsberg, Norway;	Amirhosein Shabani, Agon Ademi & Mahdi Kioumarsi;	Lecture Notes in Civil Engineering, vol 209. Springer, Cham;	04/12/2021	yes	https://doi.org/10.1007/978-3-030-90788-4_45
Rocking incremental dynamic analysis;	Christos G. Lachanas, Dimitrios Vamvatsikos;	Earthquake Engineering Structural Dynamics Volume51, Issue3;	13/12/2021	yes	https://doi.org/10.1002/eqe.3586
Seismic Vulnerability Assessment and Strengthening of Heritage Timber Buildings: A Review;	Amirhosein Shabani, Ali Alinejad , Mohammad Teymouri , André Nascimento Costa , Mahgol Shabani and Mahdi Kioumarsi;	Buildings 2021, 11(12), 661;	18/122021	yes	https://doi.org/10.3390/buildings11120661
A novel 104icroelement for seismic analysis of unreinforced masonry buildings based on MVLEM in OpenSees;	Amirhosein Shabani, , Mahdi Kioumarsi;	Journal of Building Engineering Volume 49, 104019;	12/01/2022	yes	https://doi.org/10.1016/j.jobe.2022.104019
Model updating of a masonry tower based on operational modal analysis: The role of soil-structure interaction;	Amirhosein Shabani, Mohyeddin Feyzabadi, Mahdi Kioumarsi	Case Studies in Construction Materials Volume 16, June 2022, e00957 Volume 16, June 2022, e00957;	16/02/2022	yes	https://doi.org/10.1016/j.cscm.2022.e00957
Smart Tags: IoT Sensors for Monitoring the Micro-Climate of Cultural Heritage Monuments;	Nikos Mitro, Maria Krommyda, Angelos Amditis;	Appl. Sci. 2022, 12(5), 2315;	23/02/2022	yes	https://doi.org/10.3390/app12052315
3D simulation models for developing digital twins of heritage structures: challenges and strategies;	A. Shabani, M. Kioumarsi, M. Skamantzari, S. Tapinaki, A. Georgopoulos, V. Plevris;	Procedia Structural Integrity;	22/02/2022	yes	https://doi.org/10.1016/j.prostr.2022.01.090
The influence of the vertical component of ground motion on the probabilistic treatment of the rocking response of free-standingblocks. Earthquake Engineering and Structural Dynamics;	Christos G. Lachanas,Dimitrios Vamvatsikos,Michalis F. Vassiliou ;	Earthwquake Engineering Structural Dynamics, Volume 51, Issue 8;	20/03/2022	yes	https://doi.org/10.1002/eqe.3643

Title	Authors/HYPERION partners	Title of journal	Publication date	Open Access	DOI/available electronically at (link)
Change Detection in VHR Imagery With Severe Co-Registration Errors Using Deep Learning: A Comparative Study;	Viktoria Kristollari; Vasilia Karathanassi;	IEEE Access;	24/03/2022	yes	https://doi.org/10.5281/zenodo.6516882
A risk-based evaluation of direct displacement-based design;	Luke van der Burg, Mohsen Kohrangi, Dimitrios Vamvatsikos & Paolo Bazzurro;	Bulletin of Earthquake Engineering (2022);	23/06/2022	yes	https://doi.org/10.1007/s10518-022-01447-3
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