



# Hyperion

## D9.9 Annual Magazine Issued v.2

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Authors (email) Institution	Prodromos Manous, <a href="mailto:macmanous@gmail.com">macmanous@gmail.com</a> Rossetos Metzidakos, <a href="mailto:rossetosm@uniwa.gr">rossetosm@uniwa.gr</a> Panayotis Yannakopoulos, <a href="mailto:pyannakopoulos@yahoo.co.uk">pyannakopoulos@yahoo.co.uk</a> (IEMC) Vasileios Melissianos, <a href="mailto:melissia@mail.ntua.gr">melissia@mail.ntua.gr</a> (NTUA) Dimitris Vamvatsikos, <a href="mailto:divamva@mail.ntua.gr">divamva@mail.ntua.gr</a> (NTUA) Irina Krimpa, <a href="mailto:irini.krimpa@iccs.gr">irini.krimpa@iccs.gr</a> (ICCS)
Editors (email) Institution	Nikoletta Karitsioti, <a href="mailto:nikoletta.karitsioti@iccs.gr">nikoletta.karitsioti@iccs.gr</a> (ICCS) Antonis Kalis, <a href="mailto:antonis.kalis@iccs.gr">antonis.kalis@iccs.gr</a> (ICCS)
Leading partner	<b>NTUA</b>
Participating partners	<b>IEMC, ICCS</b>
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<sup>1</sup> **R**=Document, report; **DEM**=Demonstrator, pilot, prototype; **DEC**=website, patent filings, videos, etc.; **OTHER**=other

<sup>2</sup> **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

M25	Month 25
M48	Month 48
QR	Quick Response
URL	Uniform Resource Locator
V2	Version 2

# Table of Contents

<b>Executive Summary .....</b>	<b>5</b>
<b>1. Introduction to Annual Magazine (v2) .....</b>	<b>6</b>
1.1 Annual Magazine (v2) Format.....	6
1.2 Magazine's URL address .....	7
1.3 Annual Magazine (v2) Preview .....	7
1.4 Technical Information.....	11
<b>2. Conclusion.....</b>	<b>12</b>

# Table of Figures

Figure 1: Screenshot from the cover page of the Annual Magazine III .....	7
Figure 2: Screenshot from the editorial.....	8
Figure 3: Example of hyperion's Scientific publications in the magazine .....	9
Figure 4: Screenshot from HYPERION's communication Progress .....	10
Figure 5: Screenshot from the Annual's Magazine "HYPERION in the media" section .....	11

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## Executive Summary

Deliverable 9.9 comprises of the third and last HYPERION Annual Magazine and the current document which acts as an introductory report to the Magazine. The Annual Magazine is designed, taking into account HYPERION's distinctive visual identity, displaying a contemporary image and being an easy-to-read issue.

HYPERION's third Annual Magazine, contains valuable information on HYPERION's progress, publications, key findings, attended events and seminars as well as HYPERION's presence in the media, intending to capture the reader's attention on the project's results and activities.

The Annual Magazine will be disseminated via the project's communication channels aiming to gain more awareness in HYPERION's key findings and activities, supporting its exploitation strategy.

# 1. Introduction to Annual Magazine (v2)

The Annual Magazine is an A4 brochure which includes graphic designs in the colour palette of the project and aims to stand as an independent communication and dissemination tool of HYPERION's latest developments. HYPERION's third annual magazine, contains valuable information on HYPERION's progress, publications, key findings, attended events and seminars as well as HYPERION's presence in the media.

Browsing through HYPERION's last Annual Magazine, the reader can delve into significant moments, events, and publications that were created/took place from June 2021 to late May 2023. At the beginning of the project the annual magazine was decided to be released on an annual basis but as HYPERION was granted a 6-month extension, the communication and coordination teams decided to also include relevant content for the additional 6 months of the project (M25-M48).

HYPERION's current Annual Issue will be disseminated via the project's website, social media channels and direct mailing to a specific list of recipients gathered via a dedicated subscription form which was enriched throughout the course of the project and which is uploaded on HYPERION's website.

The main objective of the Annual Magazine is to increase awareness and understanding of HYPERION's assets and fields of relevance, build relationships with new stakeholders as well as maintain regular contact with HYPERION's key target audiences.

## 1.1 Annual Magazine (v2) Format

HYPERION's Annual Magazines format was slightly differentiated in each issue according to HYPERION's status and communication and dissemination objectives. The third and last issue contains two editorial introductions by the Project Coordinator and the Project Manager, an overview of HYPERION's overall progress, a detailed overview of its scientific progress, the multiplier events and activities that took place, HYPERION's presence in the media and a detailed presentation of HYPERION's partners. Moreover, it provides easy access to the projects' social media channels and website via the relevant links and a QR code, ensuring that the reader can access more information about the project and its current activities and become part of HYPERION's community through its social media channels.

HYPERION's last Annual Magazine contains the following sections:

1. Editorial & Welcome
2. HYPERION's overall progress
3. HYPERION's Scientific progress
  - a. Conferences
  - b. Journal Publications
4. HYPERION's Pilot sites
5. HYPERION's Communication progress
  - a. Multiplier Events
  - b. Project Meetings
  - c. Seminars
  - d. *HYPERION in the Media*

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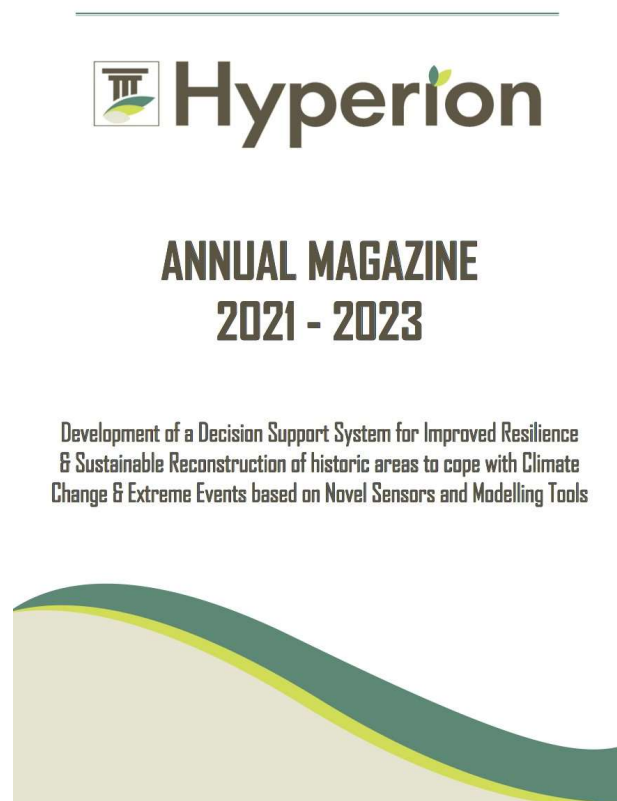
## 1.2 Magazine's URL address

The HYPERION website is the main online communication channel of the project with the target groups. Thus, HYPERION Annual Magazines (three in total) are uploaded on the website, through a dedicated submenu under project's "**NEWSROOM**" section, and can be accessed from the URL: <https://www.hyperion-project.eu/magazines/>.

In this URL, interested readers can download the PDF version of the magazine.

## 1.3 Annual Magazine (v2) Preview

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. In the following figures, one can look over selected previews of HYPERION's Annual Magazine (v2).



**FIGURE 1:** SCREENSHOT FROM THE COVER PAGE OF THE ANNUAL MAGAZINE III

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## Editorial by HYPERION Project Coordinator, Dr. Angelos Amditis



Dear readers,

I'm very pleased to welcome you to the third and last issue of the HYPERION Magazine! An annual publication created to present the project's major results and achievements, through its third year of activities. During this year, HYPERION consortium had the pleasure to meet again in person after the pandemic outbreak and coordinate to finalize project's research results and carry out our vision to promote the sustainable preservation of cultural heritage around the globe. As Climate Change is becoming more and more a crucial topic globally, HYPERION's research results become even more significant and relevant. Climate Change, ravages of time, intense geological phenomena, extreme weather conditions, all having an impact on historical areas hosting Cultural Heritage sites. Resilience is an essential attribute as we move through this crisis and into the future. In this context, during its last steps, HYPERION drove deeper, launching its final results, aiming to address these challenges, bringing a major impact on improving the conservation-restoration process and safeguarding of tangible cultural wealth. In this magazine, you will have the opportunity to review all HYPERION's research results and significant activities.

A major thank you to all HYPERION partners for contributing to this issue by sharing their research developments but also for the superb cooperation throughout the course of the project. As I often say, Cultural Heritage is not something of the past but it a foundation that fosters our root to the future, let's save it all together.

Thank you.

## Welcome message by HYPERION Project Manager, Dr. Antonis Kalis



Dear readers,

Welcome to the third and last issue of HYPERION's annual magazine! HYPERION is a pivotal EU funded project which started in June 2019, and marks the strong concern of the European Commission on preserving Cultural Heritage in times of Climate Change (CC). Project's goal was to create a strong safety net for supporting both the Cultural Heritage structures, and the surrounding communities supporting their resilience. This is of utmost importance in an era of globalization and extreme CC related events, helping in the development of communal bonds, now and in the future. In this issue, we are pleased to present HYPERION's recent results and developments which pave the way for reaching HYPERION's goals towards resilient Cultural Heritage districts.

During HYPERION's course, the consortium worked on innovative methodologies which will help to assess the effect of a multitude of CC or human inflicted threats on the landmarks themselves and launched a Holistic Resilience Assessment Platform, aiming to address multi-hazard risk understanding, ensure better preparedness, faster, adapted and efficient response, and sustainable reconstruction of historic areas. HYPERION also developed and presented a mobile application, a community engagement tool that amplifies community involvement both proactively and reactively to major disrupting events, and business continuity plans to strengthen community responsiveness. Read all about its significant results and activities in the following pages.

Happy reading!

FIGURE 2: SCREENSHOT FROM THE EDITORIAL



## FLOMPY: An Open-Source Toolbox for Floodwater Mapping Using Sentinel-1 Intensity Time Series

Karamvavis Kleonthis, Karathanassi Vassilia  
Water, (2021), 13(21):2943-2957, MDPI

**Keywords:** flooding; time series; Sentinel-1; thresholding; open-source software

### Abstract

A new automatic, free and open-source python toolbox for the mapping of floodwater is presented. The output of the toolbox is a binary mask of floodwater at a user-specified time point within geographical boundaries. It exploits the high spatial (10m) and temporal (6 days per orbit over Europe) resolution of Sentinel-1 GRD intensity time series and is based on four processing steps. In the first step, a selection of Sentinel-1 images related to pre-flood (baseline) state and flood state is performed. In the second step, the preprocessing of the selected images is performed in order to create a co-registered stack with all the pre-flood and flood images. In the third step, a statistical temporal analysis is performed and a t-score map that represents the changes due to a flood event is calculated. Finally, in the fourth step, a classification procedure based on the t-score map is performed to extract the final flood map. A thorough analysis based on several flood events is presented to demonstrate the main benefits, limitations and the potential of the proposed methodology. The validation was performed using Copernicus Emergency Management Service (EMS) products. In all case studies, overall accuracies were higher than 0.95 with Kappa scores higher than 0.76. We believe that the end-user community can benefit by exploiting the flood maps of the proposed methodological pipeline by using the provided open-source toolbox.

To download the full issue or read more, visit the following link: <https://doi.org/10.3390/w13212943>

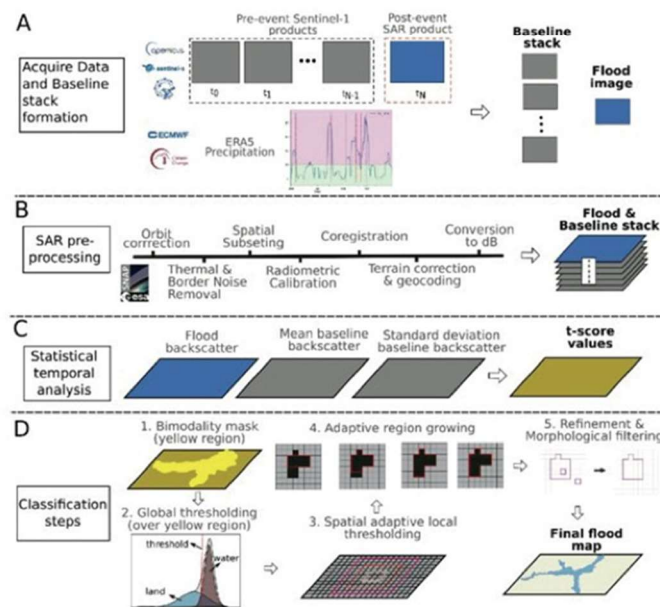


Figure 38: Flowchart of the four-step proposed methodological pipeline (FLOMPY).

FIGURE 3: EXAMPLE OF HYPERION'S SCIENTIFIC PUBLICATIONS IN THE MAGAZINE

### 3. HYPERION's Communication Progress

#### 3.1 Multiplier Events

##### EU Taskforce for Climate Neutral and Resilient Historic Urban Districts Meetings

The EU Task Force for Climate Neutral and Resilient Historic Urban Districts has been established by the Horizon 2020 projects: HYPERION, ARCH, SHELTER, in response to and support of the Horizon 2020 "Heritage Alive" orientation to increase resilience and sustainable reconstruction of historic areas to cope with climate change and hazard events. The Task Force kicked-off on June 2021 and organized three meetings, on June 2021, on the 14th & 15th of December 2021 and on 3rd of June 2022.



Figure 48: Aitzber Egusquiza Ortega introducing the purpose of the task force



Figure 49: Poster of the 2nd EU Task Force meeting

##### 2nd EU Task Force Meeting for Climate Neutral and Resilient Urban Districts

The 2nd Meeting of the EU Task Force for Climate Neutral and Resilient Historic Urban Districts was conducted virtually on the 14th & 15th of December 2021. The event, included open discussions in three thematic areas:

1. The resilience of historic urban districts;
2. The assessment, monitoring, and evaluation of risks and resilience;
3. The development of equitable solutions for and with the communities;

The purpose of the meeting was to bring together actors from the cultural sector, the research community, and policy-makers to discuss and identify the obstacles, opportunities, best practices, and tools to render the historic urban districts, climate neutral. By doing so, the task force aims to provide support to the European authorities and decision-makers to develop common evidence-based policies, strategies, and procedures to support the adaptation of historic districts to climate change.

During the second workshop cross-thematic problems, opportunities, and best practices from daily experience, as well as methods and tools to address problems and support opportunities were examined.

FIGURE 4: SCREENSHOT FROM HYPERION'S COMMUNICATION PROGRESS

#### HYPERION at the NRK Radio

On the 29th of November 2022, HYPERION partners from OLSOMET and the Vestfold and Telemark County Council took part in two radio interviews regarding HYPERION's research activities in Tonsberg.

Listen to the interviews in the following links: <https://radio.nrk.no/serie/distriktsprogram-vestfold/sesong/202211/DKVE01023122#t=1h6m0s> and <https://tv.nrk.no/se?v=NNFA05112922&t=4206s>.



Figure 78: Screenshots from the Radio presentation in Norway

#### HYPERION at SKAI RADIO, April 11, 2023 (Greek)

On the 11th of April 2023, HYPERION's results were presented at Skai Radio by Dr. Angelos Amditis, HYPERION's Coordinator from I-SENSE Group of ICCS.

During the interview, Dr. Amditis made an extensive reference to HYPERION's mobile application, developed by the ISENSE Group of ICCS which allows citizens to get actively involved in protecting and preserving Cultural Heritage monuments by posting photos/videos of potential damages, notifying the authorities for potential dangers.

To listen the interview visit <https://go.iccs.gr/eBdsuu> (00:23:15 – 00:32:31).

FIGURE 5: SCREENSHOT FROM THE ANNUAL'S MAGAZINE "HYPERION IN THE MEDIA" SECTION

## 1.4 Technical Information

The Annual Magazine layout of the HYPERION project which was selected as the most appealing to the readers, achieving high standard visual results, is used and for the current and last magazine issue.

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In the context of HYPERION's consistent brand identity and in order to keep a credible and professional "look and feel", the HYPERION Annual Magazine was created based on the project's brand guidelines, as defined and presented in D9.1 Corporate Identity and Branding.

The Annual Magazine III, was created using the Adobe InDesign software, a desktop publishing and typesetting software application, providing a wide range of useful tools and plugins.

The Agency FB fonts were used throughout the entire document. Regarding the letters' size, 12 pt and 20 pt letters were selected for the main text and titles respectively.

All images and photos that are included in this issue were provided by the members of the consortium.

## 2. Conclusion

As it becomes evident, HYPERION's Annual Magazine (V2) aims to communicate and disseminate the project's results through an extended reference to the scientific publications and the partners' very active participation in Events and Conferences. Moreover, it aims to showcase the consortium's substantial research activities and communication and dissemination efforts to the reader.

In the current deliverable, the HYPERION Annual Magazine's structure, and the technical information were presented.

The current document is followed by an A4 interactive pdf which includes the full issue of HYPERION's Annual Magazine III (v2).



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