

A Multimodal AI-based Toolbox and an Interoperable Health Imaging Repository for the Empowerment of Imaging Analysis related to the Diagnosis, Prediction and Follow-up of Cancer

# **Deliverable 9.5**

# **Clustering Events Proceedings and Raising Awareness Campaigns Results V1**

# WP9 – Dissemination, Awareness Raising and Clustering

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### **Executive Summary**

This document is designed to identify the main clustering events organized or attended by INCISIVE partners, in order to increase project's results visibility and maximize its potential and impact by collaborating with organizations that are running similar initiatives, related to the project's scope. The deliverable also contains a summary of the main campaigns that are being developed to disseminate project outcomes and raise awareness, regarding the pan-European repository of health images.

The final objectives of the clustering events and campaigns are to publicize project results, collaborate with related European initiatives and assure the widespread adoption and sustainability of the developed repository and AI toolbox beyond the European grant, so that we can improve the prevention, prediction and treatment of the most prevalent cancer types.





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# **Terms and Abbreviations**

Abbreviation	Description
AI	Artificial Intelligence
AI4HI	Artificial Intelligence for Health Imaging
BPD	Business Plan Development
C&D	Communication and Dissemination
DICOM	Digital Imaging and Communications in Medicine
EHDS	European Health Data Space
ESMO	European Society for Medical Oncology
ESR	European Society of Radiology
EUCAIM	European Federation for Cancer Images
G2M	Go-to-Market
НСР	Healthcare Provider
КРІ	Key Performance Indicators
LOI	Letter of Intent
PDES	Portfolio Dissemination & Exploitation Strategy





# 1 Introduction

#### **1.1** Purpose and scope

This deliverable aims to present the proceedings of the clustering activities and awareness campaigns that are being performed under the Task 9.4. It compiles the events promoted by INCISIVE, those organized with the AI4HI cluster, the participation in events from other EU projects, as well as the awareness-raising campaigns regarding the pan-European repository of health images. Despite Task 9.4 started officially in September 2022, INCISIVE partners have been involved in clustering activities and initiatives since the very beginning of the project.

The document is aligned with D9.2 Communication and Dissemination (C&D) Plan, which identified target groups and how to address them in C&D activities, and is tightly related to D9.3 Communication and Dissemination Activities that compiles the communication activities and results obtained from the start of the project until the 24<sup>th</sup> of March 2022. It is also connected with D9.4, which describes Dissemination Activities during the second reporting period, until month 30 of the project.

This deliverable is an in-depth description of some of INCISIVE dissemination and communication activities. However, it cannot be seen as a separate line of activities since all the dissemination activities eventually contribute to clustering and raising awareness.

#### **1.2** Document structure

The deliverable is composed of 4 different sections:

- Section 1 provides an executive summary of the work done and sets the document's purpose and scope, i.e., the context in which this report has been elaborated as well as its target and structure, and the relation with other deliverables.
- **Section 2** relates to the clustering events performed by INCISIVE, other events promoted and attended, as well as to future events.
- **Section 3** highlights future raising awareness campaigns about the pan-European repository of health images.
- Section 4 lays down the conclusions of the activities performed so far in Task 9.4.





#### 1.3 Relation with other deliverables

This document is closely related to the following deliverables:

- D9.2 Communication and Dissemination Plan
- D9.3 First Dissemination Activities Report
- D9.4 Second Dissemination Activities Report
- D9.6 Final Dissemination Activities Report
- D9.7 Clustering Events Proceedings and Raising Awareness Campaigns Results V2





# 2 Clustering events

The three main purposes of the clustering events are:

- 1) To offer high visibility for the INCISIVE results
- 2) To develop collaborations with other EU initiatives
- 3) To exchange knowledge and expertise with similar research initiatives

Currently, INCISIVE has promoted one clustering event exclusively and is organizing another one. Smaller workshops are also being delivered in parallel with larger events organized by external organizations. Additionally, INCISIVE partners have co-organized and participated in clustering events fostered by the AI4HI network.

#### 2.1 Events promoted by the INCISIVE project

INCISIVE plan was to foster two large clustering events throughout the course of the project.

The first event was already launched on the **17**<sup>th</sup> and **18**<sup>th</sup> of November 2022 by the title "Health data sharing and AI in cancer imaging – empowering AI-driven solutions for cancer diagnosis, treatment and follow-up" in the Hotel Nobel of Belgrade (Serbia).



Figure 1: Promotion campaign for the INCISIVE event in Belgrade.

**Professionals and researchers in the oncology and artificial intelligence fields** were invited to discuss about the need of AI for cancer diagnosis, treatment, and follow-up.





The two-day program included sessions and hands-on training on data sharing and its benefits, the perspectives and needs of health care professionals, the legal framework and challenges of the European Health Data Space, medical image (DICOM) de-identification, and even a specific example of the route from research to an AI product, among other topics.

The event also included sessions about other European-related initiatives clustered under the umbrella of the Artificial Intelligence for Health Imaging projects (AI4HI), the European Federation for Cancer Images project (EUCAIM), and a real-life AI Deployment case presented by Quibim.

The complete agenda and the slides presented on the meeting (hyperlinked to each title) can be found below:

Day 1	<ul> <li>Introduction to the INCISIVE project Gianna Tsakou (INCISIVE coordinator), Maggioli, Greece</li> <li>Developing AI that meets clinical needs Dimitrios Kalogeras, ICCS, Athens Sampsa Hautaniemi, University of Helsinki, Finland Valeria Ariotta, University of Helsinki, Finland</li> </ul>
	<ul> <li><u>Benefits, barriers and cases of health data sharing, and challenges of the</u> <u>European Health Data Space (EHDS)</u> Magdalena Kogut, Timelex, Belgium (remote presentation)</li> </ul>
	<ul> <li><u>INCISIVE's business model</u></li> <li>Pol Camps / Andreas Ziogos, White research, Belgium</li> <li>Vladan Zdravkovic, Visaris, Serbia</li> <li>Chrysostomos Symvoulidis, Thridium, UK</li> </ul>
	<ul> <li><u>The route from research to an AI product – the case of Quibim's real-life AI</u> <u>deployment</u> Lisa Kjønigsen, Quibim, Spain</li> </ul>
	<ul> <li><u>Artificial Intelligence for Health Imaging projects (AI4HI): positioning, objectives</u> <u>and synergies</u> Gianna Tsakou, Maggioli, Greece</li> </ul>
	• <u>CancerImageEurope: a new large-scale initiative towards the EHDS</u> Peter Gordebeke, EIBIR, Austria (remote presentation)
Day 2	• <u>Health data sharing for potential Data Providers</u> Gianna Tsakou (INCISIVE coordinator), Maggioli, Greece





<ul> <li>INCISIVE data template: data collection and extraction</li> <li>Dimitris Filos, Aristotle University, Thessaloniki, Greece</li> </ul>
<u>Medical image (DICOM) de-identification</u> Paschalis Bizopoulos, CERTH, Greece
Antonios Lalas, CERTH, Greece
<ul> <li>Data quality checking: integration and validation of all data types</li> <li>Dimitris Filos, Aristotle University, Thessaloniki, Greece</li> </ul>
• INCISIVE platform: the user interface for health care professionals Chrysostomos Symvoulidis, Thridium, UK

**More than 60 people** attended the event and had the opportunity to connect with professionals performing cutting-edge research in the field of AI for health imaging within the INCISIVE project and similar initiatives in Europe. The meeting was co-organised by Visaris and the University of Novi Sad.



Figure 2: INCISIVE event at Hotel Nobel (17th of November, Belgrade).

Several partner websites and **press releases** announced the meeting and highlighted its great results. Some links can be found below:

• INCISIVE website: <u>https://incisive-project.eu/event/incisive-event-health-data-sharing-and-ai-in-cancer-imaging-empowering-ai-driven-solutions-for-cancer-diagnosis-treatment-and-follow-up/</u>





- Visaris:
  - o <u>https://visaris.com/future-of-artificial-intelligence-in-health-care/</u>
  - o <u>https://medical-ml.com/</u>
- TIC Salut Social: <u>https://ticsalutsocial.cat/es/event/health-data-sharing-and-ai-in-cancer-imaging-empowering-ai-driven-solutions-for-cancer-diagnosis-treatment-and-follow-up/</u>
- ICONIC Center: <u>https://iconic.ftn.uns.ac.rs/h2020-incisive-workshop-health-data-sharing-and-ai-in-cancer-imaging/</u>
- Local TV channels. Some screenshots are shown in Figure 3.



Figure 3: Broadcasting of the INCISIVE event in Belgrade by Serbian television channels. (a) Vladimir Petrović, Visaris' representative, talking to *RTS*, (b) Gianna Tsakou, INCISIVE's Coordinator, talking to *euronews.SERRBIA*, and (c) Vladan Zdravkovic, Visaris' representative, talking to *N1* and (d) *Happy TV Telemaster*.

After the event, INCISIVE partners shared which were the **key achievements and learnings** obtained from the first event organized by the consortium, coming to the following conclusions:

- Key achievements:
  - The meeting was a great opportunity to raise awareness in the region about the solutions that the project will offer and to receive feedback from professionals at the different INCISIVE workshops.





- There was a fruitful dialog among clinical practitioners and AI professionals.
- The event was disseminated by national TV channels.
- Key learnings to consider for the next event:
  - It would be beneficial to have parallel rooms to discuss the repository and the AI toolbox.
  - There was just one credential (the administrator's one) to enter the repository. More credentials should be created for the next event.
  - Badges could have helped to identify people's names and role (HCP-researcher, HCP-doctor, INVISIVE's partner...) facilitating small talks and interactions during breaks.
  - Another recommendation was to separate both days into two target-related topics. For example the first day could focus on developers and talks connected to their interest, while the second one could focus on clinicians.
  - It's important to conduct all the panels in English, to attract international attendees and facilitate everyone's understanding.
  - Sound tests should have been performed before the event to ensure a good connection with the online participants.

A second clustering activity will be organized by INCISIVE in 2023. More information about this event can be found in section 2.5.1.

#### 2.2 Activities promoted together with the AI4HI cluster

The AI4HI cluster is made up of five collaborative projects funded under the AI for Health Imaging action of the European Union's Horizon 2020 research and innovation programme: <u>Chaimeleon</u>, <u>EuCanImage</u>, <u>ProCancer-I</u>, <u>Incisive</u> and <u>Primage</u>. The cluster gathers over 100 institutions, from universities to companies, from all European regions and several nonEU partners. INCISIVE partners have participated in the following activities or initiatives related to the cluster:

#### Table 1. Activities promoted together with the AI4HI cluster

**1.** Big data and artificial intelligence in cancer imaging





Activity type	Joint Workshop	
Date	July 27 <sup>th</sup> , 2021	
Location	Online	
Target audience	Scientific community, with a result of 40 participants	
Description	Joint workshop with all AI4HI projects that provided a detailed report of the challenges identified so far, by the funded project in the domain by the European Union; it presented current approaches towards consensus building and critically discuss alternatives. Particular emphasis was given to the issues related to the evaluation of AI-based diagnostic imaging algorithms including robustness, trust and explainability.	
Link	https://incisive-project.eu/event/ieee-bhi-bsn-conference/	
2. EuCanlmage	e 1st Webinar	
Activity type	Webinar	
Date	November 17 <sup>th</sup> , 2021	
Location	Online	
Target audience	Scientific community. 35 participants attended the event	
Description	It was an event organised by the European Society on Oncologic Imaging in the framework of the EuCanImage project, under the topic "Obstacles and avenues for data sharing and AI in career imaging". INCISIVE'S coordinator, Gianna Tsakou	







Link	https://www.youtube.com/watch?v=1OTA1gU42Vw		
3. Webinar for	3. Webinar for the eHealth Stakeholder Group on the Cancer Imaging Initiative		
Activity type	Joint Workshop		
Date	January 12 <sup>th</sup> , 2022		
Location	Online		
Target audience	The eHealth Stakeholder Group		
Description	Gianna Tsakou (INICIVE coordinator) was invited as a speaker to the webinar 'Cancer imaging infrastructure – opportunities and challenges of a common approach', organized by the European Commission for the eHealth Stakeholder Group. During the webinar, all the coordinators of projects on AI4HI organized a discussion on the challenges and a possible common approach towards an EU- wide cancer imaging data infrastructure. On behalf of INCISIVE, Tsakou presented the common challenges that this massive infrastructure brings, focusing on relevant topics that are being addressed within the project: legal and ethical issues, data interoperability, image heterogeneity and annotation, data storage and sustainability.		
Link	https://incisive-project.eu/new/what-are-the-opportunities-and-challenges-of- a-common-approach-towards-an-eu-cancer-imaging-infrastructure/		
4. National Aut Cooperation	thority for Electronic Health and PASYKAF signed a Memorandum of		
Activity type	Meeting		
Date	March 3 <sup>rd</sup> , 2022		
Location	Nicosia, Cyprus.		
Target audience	Researchers and clinicians		
Description	The presentation, prepared by PASYKAF, focused on common challenges and a possible common approach towards an EUwide cancer imaging data infrastructure. The memorandum of the National eHealth Authority and PASYKAF		





Link	provides, inter alia, the promotion of joint programs, studies and research aimed at upgrading and improving e-health services provided to citizens, participation in research programs co-financed by the European Union and other research organizations. innovation, the exchange of views, experiences, data and information, as well as the provision of training by EAHY to PASYKAF executives on e-Health issues.			
5. Cyprus Patie	nts' Associations Federation (OASAK) and PASYKAF meeting			
Activity type	Meeting			
Date	March 4 <sup>th</sup> , 2022			
Location	Nicosia, Cyprus.			
Target audience	Researchers and clinicians			
Description	The presentation, prepared by PASYKAF was about INSICIVE's principles and challenges and a possible common approach towards patients' needs.			
Link	N/A			
6. Trustworthy	Al in Cancer Imaging Research			
Activity type	Symposium			
Date	July 11-15 <sup>th</sup> , 2022			
Location	Glasgow, UK.			
Target audience	The scientific community			
Description	Symposium under the 2022 44th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC 2022). Co-organisation of a symposium on Trustworthy AI in Cancer Imaging Research lead by INCISIVE (AUTH/MAG as co-organisers), with contributions from CHAIMELEON, EuCanImage and ProCancer-I.			





Link	https://embc.embs.org/2022/			
7. Building bridges: From Radiomics/AI research to clinical practice: the ProCAncer-I vision				
Activity type	Workshop			
Date	July 15 <sup>th</sup> , 2022			
Location	Vienna, Austria.			
Target audience	The scientific community, with 100 participants (radiology professionals, radiographers, physicists, industry representatives, and press reporters for both the medical and consumer press)			
Description	Workshop under the 2022 European Society of Radiology (ESR) Congress organised by the European Society of Radiology. A workshop co-organized by the AI4HI coordinators with MAG as co-organiser, with contributions from all AI4HI projects. The ECR is one of the largest medical meetings in Europe and the second-largest radiological meeting in the world.			
Link	https://incisive-project.eu/new/incisives-participation-at-the-european- congress-of-radiology-2022/			
	open, standard-based, interoperable Cancer Imaging Repositories in Europe: riences and Challenges			
Activity type	Workshop			
Date	September 27 <sup>th</sup> , 2022			
Location	Ioannina, Greece.			
Target audience	The scientific community, with 100 participants.			
Description	Workshop under the 2022 IEEE BHI-BSN Conference. Co-organisation of a workshop by the AI4HI coordinators with MAG as co-organiser, with contributions from all AI4HI projects. The IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI) and the IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN) provided a unique			





	forum to showcase enabling technologies of devices and sensors, hardware and software systems, among others.		
Link	https://bhi-bsn-2022.org/		
9. EuCanlmage	2nd Webinar: 'Obstacles and avenues for data sharing and AI in cancer imaging'		
Activity type	Webinar		
Date	November 17 <sup>th</sup> , 2022		
Location	Online		
Target audience	Scientific community		
Description	The second EuCanImage webinar covered topics on 'Introduction/Update to EuCanImage', 'Caring', 'Handling', 'Annotation', and 'Sharing'. Two INCISIVE's partners participated in the webinar: Magdalena Kogut from Timelex, in the legal panel session, and Ioanna Chouvarda from the Aristotle University of Thessaloniki, in the technical panel. This was a joint webinar together with the AI4HI project EuCanImage, the European Society of Oncology Imaging (ESOI) and the European Association for Cancer Research (EACR).		
Link	https://www.youtube.com/watch?v=1OTA1gU42Vw		
10. European Co	ongress of Radiology		
Activity type	Webinar and participation in a session		
Date	March 1 <sup>st</sup> -5 <sup>th</sup> , 2023		
Location	Vienna		
Target audience	Scientific community		
Description	The European Congress of Radiology is one of the largest medical meetings in Europe and the second-largest radiological meeting in the world. In the 2023 edition, the congress welcomed 17262 participants from 122		





	countries, gathering doctors, physicians, medical imaging professionals and industry leaders, among others. INCISIVE's coordinator, Gianna Tsakou, presented INCISIVE in the session 'Paving the way for a European infrastructure for AI for health imaging', in which all AI4HI projects were also featured. Additionally, Maria Lelegianni from the Aristotle University of Thessaloniki participated in a session with the talk 'Generation of a breast imaging repository and an AI breast imaging toolbox by INCISIVE 2020'.		
Link	https://connect.myesr.org/?esrc_course=paving-the-way-for-a-european- infrastructure-for-ai-for-health-imaging		
11. AI4HI Cluste	ring meetings		
Activity type	Meeting		
Date	As of beginning of 2021. Regularly (weekly, monthly, bimonthly)		
Location	Online		
Target audience	e Consortium partners of all the AI4HI projects		
Description	Nine working groups were set up among the AI4HI projects and meet regularly discuss common approaches, regarding, among others, development, metada models, storage, validation, clinical pilots. This activity has already led to common papers, while more articles are on the way, and plans are made for a book.		
Link	N/A		
12. AI4HI Exploi	tation clustering meetings		
Activity type	Meeting		
Date	As of beginning of 2022		
Location	Online		
Target audience	Partners of all AI4HI projects, relevant to dissemination and exploitation		





Description	Establishment of an Exploitation working group within the AI4HI cluster.		
Link	N/A		
13. Future Al Ini	tiative		
Activity type	Meeting		
Date	2021 & 2022		
Location	Online		
Target audience	Partners of Future AI project		
Description	International, multi-stakeholder initiative for defining and maintaining concrete guidelines that will facilitate the design, development, validation and deployment of trustworthy AI solutions in medicine and healthcare based on six guiding principles: Fairness, Universality, Traceability, Usability, Robustness and Explainability. The FUTURE-AI assessment checklist consists of concrete and actionable questions that will guide developers, evaluators, and other stakeholders in delivering medical AI tools that are trustworthy and optimised for real-world practice. INCISIVE is one of the current projects related to this initiative.		
Link	https://future-ai.eu/		

#### 2.3 EUCAIM

A major step of the AI4HI cluster has been the kick-off of the **EUCAIM project** (European Commission, 2023). EUCAIM stands for EUropean Federation for CAncer IMages, and it represents the cornerstone of the European Cancer Imaging Initiative (EC, 2023), a flagship of Europe's Beating Cancer Plan (EBCP). EUCAIM will establish and deploy a pan-European digital and federated infrastructure of FAIR pan-cancer anonymized images and provide a research platform for the development and benchmarking of AI tools towards precision medicine.

EUCAIM builds upon the results of the work of the "AI for Health Imaging" (AI4HI) Network which consists of 86 affiliated institutions from 20 countries involved in 5 large EU-funded





projects on big data and Artificial Intelligence in cancer imaging: INCISIVE, EuCanImage, ProCAncer-I, CHAIMELEON, and PRIMAGE. These projects are developing Artificial Intelligence algorithms to detect cancer from imaging and are establishing federated repositories for cancer images.

The initiative is intended to support healthcare providers, research institutes and innovators in making the best use of innovative data-driven solutions for cancer treatment and care, by the creation of a digital infrastructure that gathers databases of cancer imaging data across the EU, while it ensures adherence to high ethics standards, trust, security and protection of personal data (Bahrke & Grammenou, 2023).

EUCAIM Project	EUCAIM Project			
Coordinator	European Institute for Biomedical Imaging Research (EIBIR), Austria			
Scientific Coordinator	Prof. Luis Martí-Bonmatí, Director of the Medical Imaging Department, Chairman of Radiology, La Fe University and Polytechnic Hospital (Valencia, ES)			
Number of partners	76			
Start Date	January 1 <sup>st</sup> , 2023			
End Date	December 31 <sup>st</sup> , 2026			
Total EC Funding	17,789,829.02 €			
Grant Agreement nº	1011100633			
Website	https://www.eibir.org/projects/eucaim/			

#### Table 2. EUCAIM Project details

The European Cancer Imaging Initiative was **launched on the 23<sup>rd</sup> of January of 2023** in Brussels (Streaming Service of the European Commission, 2023), where Prof. Luis Martí-Bonmatí, the scientific director of EUCAIM project, took the opportunity to present an overview of the federated European infrastructure behind the project. Several topics were discussed during the event, from the different challenges that precision imaging and cancer faces, to the actors that





constitute the corresponding ecosystem, followed by panel discussions led by sector professionals. The event was closed with a Q&A in collaboration with the online and "in person" audience.



Figure 4: European Cancer Imaging Initiative launch event in Brussels, 23rd of January 2023.

After stating the needs that promoted the origin of the initiative, Prof. Martí-Bonmatí identified EUCAIM's vision and mission:

- Deploy a pan-European **federated infrastructure** to power up AI & Imaging to beat cancer
- Provide a **Research Platform** for the development & benchmarking of AI tools toward Precision Medicine
- Address the fragmentation of the existing cancer image repositories by building a **distributed Atlas of Cancer Images** (>60M cancer images)
- Create a **Federated Data warehouse** approach for deploying Observational Studies and populate the centralized Image Repository





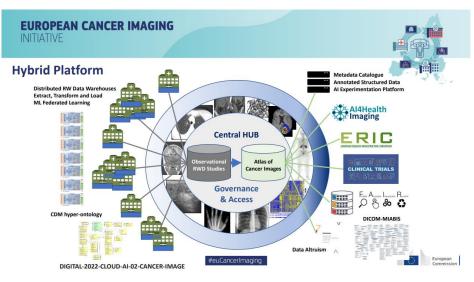


Figure 5: Hybrid Platform of EUCAIM. One of the components of the atlas of cancer images is AI4HI, which includes INCISIVE project.

EUCAIM AI algorithms and models need a large amount of updated and high-quality images and related data. That is the reason why this integrated architecture is designed together with major European Infrastructures (such as BBMRI, EATRIS, ELIXIR or Euro-BioImaging), institutions, and companies, being based on real-world achievements.



Figure 6: EUCAIM Partners and Stakeholders.

The following diagram describes the timeline and milestones that the European Cancer Imaging Initiative plans to achieve in the coming years.



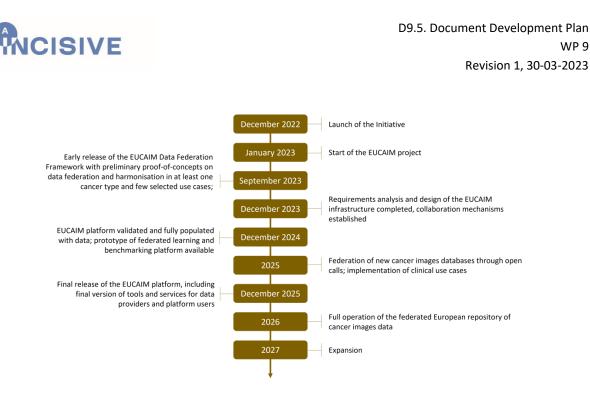


Figure 7: Timeline of EUCAIM Milestones.

The EUCAIM project will bring together more than 100,000 cancer cases by 2025 and at least 60 million annotated cancer images in a distributed Atlas of cancer images from a minimum of 15 countries, supporting and showcasing the development and benchmarking of AI tools towards precision medicine.

According to the project's partners: EUCAIM will change the way targeted treatments, clinical guidelines and pathways, treatment timing, data science, clinical trials, patient management and outcomes are conducted today. Additionally, EUCAIM will foster data discovery, federated search, metadata harvesting, annotation and distributed processing, including federated and privacy-preserving learning.

A special collaboration is already in place with EUCAIM, because INCISIVE coordinator (Gruppo Maggioli) will be co-leading, together with FORTH, the work package on "Data Federation and Interoperability Framework" that will provide the "glue" for the massive cancer imaging and clinical data to be made available through the project. AUTH, HCS and GoC are also partners of EUCAIM project. Therefore, from now on EUCAIM will have an active role in our next clustering events and webinars.

#### 2.4 Participation in other EU-funded projects' events

Table 3. Events related with EU-funded projects and participated by INCISIVE partners.





Event	Date	Description		
EUHealth Event - The EU4Health Program and the European Cancer Action Plan: Challenges and Prospects	April 2 <sup>nd</sup> , 2021	Online. PASYKAF participated in this <u>webinar</u> and Mr. Nicolas Philippou, our Executive Director developed the topic "People with cancer experience in Cyprus: Action plan and Cypriot reality". Mr. Philippou referred to the way the Association operates, presented the challenges we face and the PASYKAF's role in INCISIVE and what are the program's challenges. The target audience were Policy makers, and 250 people attended the event.		
INCISIVE's DICOM de-identification approach and tools used in the project	June 28 <sup>th</sup> , 2021	Online. Meeting with the InterEHRoperate project to inform them about INCISIVE's DICOM de-identification approach and tools used in the project. Target: the scientific community, with 10 participants.		
Webinar 'Deploying FHIR: How to co-engage public and private players?'	May 12 <sup>th</sup> , 2022	Sara Martínez from TIC Salut Social presented the work with HL7 FHIR in INCISIVE. ETHEL, which is a multi-stakeholder organisation within Europe that brings together organisations and individuals engaged in all aspects of eHealth, organized this webinar to provide the perspective of both industry and public authorities on the question of integrating and managing FHIR. It also explored the different business and incentivisation models, which have been implemented across Europe to enforce compliance from industry players to emerging new standards.		

#### 2.5 Upcoming events

#### 2.5.1 INCISIVE event in Madrid

As explained in section 2.1, INCISIVE's plan was to launch at least two large events, one being held in Belgrade, and a second one that will take place in Madrid in 2023. This event will contribute to





increase project's visibility in the ecosystem, exchange knowledge with other sector professionals and promote the contribution of medical images to the hybrid repository.

Given the limited economic resources available for this event, an analysis of potential congresses taking place in Madrid during 2023 was carried out. The objective was to find possible collaborators to launch a joint event with a co-organizer institution. The following table lists the congresses that are related with the healthcare sector and with INCISIVE's scope (cancer, AI, medical imaging and radiology):

EVENT	Scope	Date
InnoUAM_BioHealth	Conference on Innovations in diagnosis and therapy of diseases, where there will be presented: new technologies from researchers at the UAM (University Autonomous of Madrid) and the Campus of Excellence UAM+CSIC ( <i>Consejo Superior de</i> <i>Investigaciones Científicas</i> ), open innovation programmes within the pharmaceutical industry, products under development in the business sector, as well as the interests of investors in the sector. The conference will be followed by a session of bilateral meetings open to all attendees. <u>https://eventos.uam.es/18262/detail/innouam-biohealth- innovaciones-en-diagnostico-y-terapia-de-enfermedades</u>	March 15 <sup>th</sup> , 2023
CRMI 2023: 17. International Conference on Radiology and Medical Imaging	International Conference on <b>Radiology and Medical Imaging</b> that aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Radiology and Medical Imaging. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered, and solutions adopted in the fields of Radiology and Medical Imaging. <u>https://waset.org/radiology-and-medical-imaging-conference- in-march-2023-in-madrid</u>	March 20 <sup>th</sup> - 21 <sup>st</sup> , 2023

#### Table 4. Events taking place in Madrid (in 2023), related with project's scope





100 startups	100 Startups <b>Health</b> is an <b>open innovation</b> initiative that connects all the players in the ecosystem (researchers, clinicians, startups, investors). <u>https://100startups.es/</u>	March 22 <sup>nd</sup> - 23 <sup>rd</sup> , 2023
VIII Foro OM3d, La Oncología Médica en 3 días	Spanish Society of <b>Medical Oncology</b> . In this eighth edition of the OM3d Forum, the intention is to review in depth all the most relevant and current aspects of Medical Oncology, in a dynamic and participative way. <u>https://seom.org/otros- servicios/agenda/1036-viii-foro-om3d-la-oncologia-medica-en- <u>3-dias</u></u>	April 18 <sup>th</sup> - 20 <sup>th</sup> , 2023
IEEE International SYmposium in Biomedical Imaging (ISBI 24)	Conference focused in Medical Imaging and AI with a strong presence of research, industry and health. <u>https://signalprocessingsociety.org/blog/isbi-2024-2024-ieee- international-symposium-biomedical-imaging</u> (the conference presentation is just after the end, but the work will be done during the project)	May 27 <sup>th</sup> - 30 <sup>th</sup> , 2024
South Summit	Event where startups get to share their project with international investors. It facilitates the expansion of open innovation initiatives with hundreds of new projects. Main topics: ClimaTech, Humanities, Industry 5.0 and <b>Health</b> . <u>https://www.southsummit.co/south-summit-</u> <u>mad/?gclid=EAIaIQobChMIpdaeoryV_QIVCACLCh2DUw32EAAY</u> <u>ASABEgJ9U_D_BwE#1</u>	June 7 <sup>th</sup> -9 <sup>th</sup> , 2023
Fenin - Encuentro del sector de la tecnología sanitaria	One-day conference, entitled "Scenarios of <b>Health Technology</b> Procurement", that will be attended by top-quality speakers. <u>https://www.fenin.es/eventos/eventos/216</u>	June 7 <sup>th</sup> , 2023
ESMO Congress	<ul> <li>European Society for Medical Oncology. Objectives:</li> <li>To review and be updated on prevention, screening and early diagnosis of cancer</li> <li>To be updated on the latest breakthroughs in basic science, translational and clinical cancer research</li> <li>To analyze and understand the clinical perspective of the scientific advances in cancer biology, diagnostics, and new treatments</li> </ul>	October 20 <sup>th</sup> -24 <sup>th</sup> , 2023





	<ul> <li>To learn the optimal roles of novel diagnostics and treatments for patients with cancer.</li> </ul>	
	https://www.esmo.org/meeting-calendar/esmo-congress- 2023/abstracts	
EONS Conference	<ul> <li>European Oncology Nursing Society (EONS).</li> <li>Cancer Nursing: Health promotion, prevention and screening</li> <li>Cancer Nursing: eHealth and digital innovations</li> <li>Cancer Nursing: Supportive care</li> <li>Cancer Nursing: Symptom management</li> <li>Cancer Nursing: Palliative and end-of-life care</li> <li>Cancer Nursing: Workforce and educational issues in cancer nursing. <u>https://cancernurse.eu/eons16/</u></li> </ul>	October 21 <sup>st</sup> -23 <sup>rd</sup> , 2023
8th International Conference on Breast Cancer and Women's Health	Pulsus Group. Topics like <b>breast cancer</b> , gynecology, Mastectomy, male breast cancer, new clinical trials, Mammography, <b>Radiology</b> , Breast cancer surgery, and Breast Cancer awareness are covered during the scientific conference. Researchers can learn about innovation, development, treatments, and progression at this conference, which also serves as an excellent place for discussion. <u>https://breastcancer-congress.pulsusconference.com/</u>	December 7 <sup>th</sup> -9 <sup>th</sup> , 2023
AI Business Congress	Conference that gathers representatives from nearly every industry to understand how <b>Artificial Intelligence</b> (AI) is involved in each field and where it is heading in the short to medium term. Big Data Magazine y AI-Network in Spain and LATAM. <u>https://aibusinesscongress.es/</u>	Not published yet
VI Jornada Innovación en Ciencias de la Salud	Infanta Leonor University Hospital Innovation Conference. Main objective: To develop a forum for meeting, discussion and exchange of ideas about current approaches related to <b>innovation in health</b> , between healthcare personnel and other professional sectors. <u>https://jornadasinnovacion.webnode.es/</u>	Not published yet





After this initial analysis, some of the above listed events were discarded due to congress requirements or dates and the list was prioritized. In March 2023, we contacted Fundación Ramón Areces (frA, s.f.), a Spanish private cultural foundation with the social purpose of developing education, culture, and research, which organizes several events and workshops related with cancer. As well as Fenin (Fenin, s.f.), the Spanish Federation of Healthcare Technology Companies, with whom Medtronic has a tight collaboration. Both organizations are well known in the healthcare research & innovation sectors and count with powerful online platforms and stakeholders contact lists that would help us disseminate INCISIVE event and reach targeted attendees.

Meetings are already arranged with both organizations to discuss a potential co-organization of the 2<sup>nd</sup> INCISIVE clustering event. If an agreement is not achieved with neither of them, we will proceed to contact the other institutions identified on Table 4. Concretely, the ESMO congress is of special interest, as it will group relevant international experts in the medical oncology field.

In parallel, we have started to identify potential speakers, as well as to plan the Agenda for the event. Regarding the promotion of the event, we are planning to:

- Select a hybrid mode (on-site and online attendees)
- Generate a new tab on INCISIVE's project website to include all the information about the event
- Include a registration process, to enlarge the INCISIVE database, control the assistance and send regular communications about the program, speakers and logistic details, etc.
- Establish a multichannel digital campaign to redirect traffic to the site, from social media (Twitter and LinkedIn), and mailing (registration, INCISIVE database and AI4HI cluster database). We will ask for the support of the whole consortium, as well as the communication departments of project partners to disseminate the event.

#### 2.5.2 Workshops and webinars

At least three more workshops and webinars will be organized or participated by INCISIVE partners to give visibility to project's results and, at the same time, exchange knowledge and expertise with similar research initiatives. These initiatives are being carried out in collaboration with external organizations such as hospitals, research institutions and large conference organizers.





- The following workshop, which is already arranged, is the 45th Annual International Conference of the IEEE Engineering in Medicine & Biology Conference: Sydney, July 24-28. Susanna Aussó from TIC Salut Social Foundation will participate in a symposium that was submitted by the AI4HI cluster.
- Gianna Tsakou has been invited to participate in a clustering event that will take place on the 15-17 of December in Athens (Greece): **Conference on cancer imaging 2023**. It will be addressed mainly to radiologists (one of the main target groups of the project, as healthcare professionals and potential data providers).
- Another workshop on **pan-European health imaging repository** is being planned.





## **3** Raising Awareness Campaigns and results

#### 3.1 Letter of intent (LOI) to promote data sharing

WP8, jointly with WP9, have developed a short **Letter of Intent** to be used with the **purpose** of engaging with external stakeholders and promote the data sharing in the context of the Repository:

- In ANNEX 2, you can find a copy of the LOI that is going to be used for entities external to the INCISIVE consortium to become contributors to the INCISIVE Hybrid Repository.
- Special efforts will be allocated to approach potential data providers in our next clustering event in Madrid.
- Moreover, a new website section will be created on INCISIVE's webpage (with a point of contact) to incentivize the contribution of medical images by external institutions to the Repository.

WP8 is defining a sustainability plan that will identify a **database of external stakeholders** that are going to be approached by the INCISIVE consortium to further expand and increase the data and market adoption of the repository. Stakeholders will be approached mainly by:

- Engaging them to INCISIVE events and training activities. Moreover, the LOI will be sent to each registered attendee to the Madrid clustering event.
- Joint attendance to congresses and events, related with project scope (breast, prostate, colon or lung cancer, medical imaging, radiology, among others).
- Using the network and channels from established organizations, such as ESR, ESMO or Fundación Ramón Areces.
- One to one meetings with selected stakeholders.
- Other dissemination actions, such as including a call to action in the INCISIVE newsletter.

The sustainability plan will also detail the **incentives** that could be offered to motivate external data providers to nurture the INCISIVE repository, by sharing their healthcare data in a legally compliant manner. Some incentives have been proposed by INCISIVE partners, and these will be prioritized and validated in WP8, with external stakeholders. This will be crucial to deeply characterize what are the driving motives behind data sharing and how we are able to overcome initial reluctance.





#### **3.2** General dissemination and communication activities

The INCISIVE project, under the umbrella of WP9, has developed useful communication tools about the project and conducted a wide range of Communication and Dissemination (C&D) activities to create general awareness and share the project's key messages and results since the very beginning of the project.

On the one hand, the communication tools developed include the project's visual identity (logo, document and presentation templates), <u>website</u>, social media channels (<u>Twitter</u>, <u>LinkedIn</u> group and <u>YouTube</u>), <u>leaflet</u>, external newsletter and internal tools for planning and monitoring (editorial calendar and Activity Report).

On the other hand, the C&D activities involve all the events in which the project has been mentioned or explained, the scientific publications of the project (both in peer-reviewed journals or conference proceedings), and all the news, articles and press releases that the consortium and its partners have shared.

All the details and results of the C&D activities are thoroughly explained in the D.9.3. First Dissemination and Communication Activities Report (with the results obtained from the project's kick-off to the 24<sup>th</sup> of March 2022), and the D.9.4. Second Dissemination and Communication Activities Report (with the results achieved from the 25<sup>th</sup> of March 2022 to the 15<sup>th</sup> of March 2023).

The overall assessment of the C&D activities is very positive: we have participated in **more than 45 scientific and industrial events**, published **16 scientific articles** in peer-review journals and conference proceedings, shared **more than 30 news articles of interest** related to the project, and reached **wide visibility on social media channels**, with more than 32,000 impressions. With these results, we can conclude that **INCISIVE is on track to achieve the project's C&D Key Performance Indicators** (KPI) since the progress is favourable and it seems feasible to reach our goals, except the KPI for the webpage visits that will not be reached due to a change in the cookies policy and the analytics tool.

Category	КРІ	Value expected	Achieved until the 24 <sup>th</sup> March 2022	Achieved until the 15 <sup>th</sup> March 2023 (aggregated data)

#### Table 5: C&D indicators expected for the end of the project and results achieved until the 15<sup>th</sup> of March 2023



Website	Number of visits at the project website	> 10.000 unique visitors	3,007 users	4,110 users
	Average time	> 1 min	1 min. 08 sec.	4 min. 24 sec.
	Followers on Twitter	> 200	104	155
Social Media	Twitter impressions	> 50,000	21,100	41,000
	Members on LinkedIn	> 150	118	136
Scientific publications	Number of scientific papers published	> 35 peer-reviewed scientific publications	8	17
	Conference contributions	> 10 conference contributions	4	19
Presentations, synergies, and clustering events	Presentations in international industrial events	Presentations of results at least in 10 international events	2	5
	External events and conferences	<ul> <li>&gt; 12 events/year</li> <li>&gt; 3 booth</li> <li>participations in</li> <li>conferences</li> </ul>	19 events 1 booth in conference	48 events 2 booths in conference
	Synergies with major initiatives and networks.	10 joint actions	7	13
	INCISIVE clustering events	2 clustering events with the participation of at least 15 research initiatives	3	4
	1 workshop on pan-European	Targeting 100 participants	Not available yet	Not available yet





	health imaging repository			
	1 final workshop	Targeting 100 participants	Not available yet	Not available yet
	INCISIVE AI toolbox demonstrations webinars	> 3 webinars	Not available yet	Not available yet
Newsletters	Subscribers	> 100	35	51
Leaflets	Number of leaflets distributed	> 100	+100	+200
Press releases	Number of press releases	3	1	2
News articles	Number of articles on the project's webpage	> 40	18	32
Media impacts	Number of articles published in the media	> 10	5	11
	Pan-European health imaging repository members	> 40 members (data providers)	Not available yet	Not available yet
Other	Develop INCISIVE health professionals / industrial stakeholders' database	> 300 contacts	Not available yet	Not available yet

Finally, the involvement of INCISIVE partners in C&D activities is very encouraging since they are participating proactively in external events, leading and participating in scientific publications, sharing information about the project whenever they can, using the project materials properly





(presentation templates, meeting minutes, etc.), and providing valuable insights and feedback to WP9.





#### **3.3** Future raising awareness campaigns

#### **3.3.1** Possible joint application to the Horizon Results Booster services

The <u>European Results Booster (HRB)</u> is an initiative of DG RTD which aims to maximise the impact of research funded projects by FP7, H2020 and Horizon Europe.

HRB offers, free of charge, three types of services to ongoing or completed EC-funded projects:

Service 1	Service 2	Service 3
Portfolio Dissemination & Exploitation Strategy (PDES)	Business Plan Development (BPD)	Go-to-Market support (G2M)

#### Table 6: Horizon Results Booster services.

Application to these services is **public and open** to eligible projects.

The first service (PDES) is to support projects to collaborate, plan and deliver joint dissemination activities from experts on the matter. Three modules are offered:

- **Module A:** This module supports the creation of a **portfolio of results** that are suitable for joint dissemination, as well as a comprehensive mapping of the relevant stakeholders/target audience for each particular portfolio.
- **Module B:** supports project groups to design a **joint dissemination plan** for the portfolio and to carry out the actual dissemination of the portfolio results. The service delivery includes the visual identity for the beneficiary project group and a short video describing the project results. The module is addressed to giant dissemination activities.
- **Module C:** This service provides guidance and training to improve the existing project strategies towards effective **exploitation** of key exploitable results.

We will talk with dissemination and exploitation partners of the projects that are part of the **AI4HI cluster** and **EUCAIM** to apply together to Module A, so that we can strengthen our dissemination capacity and maximise the dissemination of the portfolio of results.





If successful delivery of Module A, we will be able to access Module B, which would offer us a wider and more complete view to potential users.





# 4 Conclusions

The overall assessment of the clustering events and raising awareness campaigns is positive.

- INCISIVE conducted a large **event** on November 17<sup>th</sup> and 18<sup>th</sup>, 2022, in **Belgrade**, with the participation of more than 60 clinicians and researchers in the oncology and artificial intelligence fields, which was broadcasted in national TV channels.
- INCISIVE partners have co-organized or participated in several **clustering events** and webinars together with the Artificial Intelligence for Health Imaging (AI4HI) cluster. Also in smaller **workshops**, which are being delivered in parallel with greater events organized by external organisations.
- The results and synergies between AI4HI projects (INCISIVE among them) have enabled the launch of the EUropean Federation for CAncer IMages (EUCAIM), which has the potential to transform cancer diagnosis, treatment and management.
- A **letter of intent** has been developed with the purpose of engaging with external stakeholders and promote the data sharing in the context of the INCISIVE Hybrid Repository
- The consortium has participated in multiple **dissemination activities to raise awareness** about project scope and results.

However, we need to continue working in the following aspects, so that we can improve project dissemination and impact:

- Define the dates, place and agenda of INCISIVE's **second clustering event** that is going to take place in Madrid, so that we have enough time to engage enough stakeholders in the event.
- Perform **individual meetings** with key stakeholders to raise **project awareness** and incentivize external institutions to become **contributors** to the INCISIVE Hybrid Repository.
- Foster the **participation of project partners** in new workshops, events and clustering activities.
- Define a strategy to apply to the **Horizon Results Booster services** together with EUCAIM or AI4HI.





## **5** References

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D9.5. Document Development Plan WP 9 Revision 1, 30-03-2023

# ANNEX 1. Letter Of Intent (LOI)

# 

Improving cancer diagnosis and prediction with

A Multimodal AI-based Toolbox and an Interoperable Health Imaging Repository for the Empowerment of Imaging Analysis related to the Diagnosis, Prediction and Follow-up of Cancer

# Letter of Intent for entities external to the INCISIVE consortium to become contributors to the INCISIVE **Hybrid Repository**

Grant Agreement n 952179







D9.5. Document Development Plan WP 9 Revision 0.1.4, 20-03-2023

[Month, day, year]

Dear Sir/Madam,

The INCISIVE project, funded by the Horizon Europe programme under the Grant Agreement 952179, is a four-year Research and Innovation Action that aims to develop a set of Artificial Intelligence methodologies, techniques and algorithms that, when applied to medical images of various origins (CT, MRI, PET, Mammograms...) are able to reliably detect the presence of prostate, colon, breast and lung tumours and cancers and provide information about the prognosis of the disease, state and malignancy among others.

On the other hand, the project has as a secondary objective to build and develop a global Open Access repository of anonymized medical images that allows the free contribution of images from multiple hospitals and of various formats while guaranteeing all the regulatory, ethical and legal dimensions of the European Union.

The following document has been designed to act as a **non-binding letter of intent,** aiming at capturing the possible interest of external parties to participate in the contribution of their images under the INCISIVE Data Sharing Agreement framework fully respecting the GDPR requirements. This letter is not binding at this stage and deeper negotiations with each potential consortium-external data provider will be carried out in order to conclude to the signing of the data sharing agreement.

By means of this letter, **[Name of the signing person + position in its institution]** manifests his/her willingness in supporting the INCISIVE's Hybrid Repository via the contribution of multimodal medical images available at their institution.

The reason why the INCISIVE consortium requests this support is because we sincerely believe that this project has the potential to create and implement a tangible change in European Healthcare systems and expand the scientific, medical and technological prowess of the European Union in the coming years.

Yours sincerely,

[Name of the signing person]

[Position in its institution]





D9.5. Document Development Plan WP 9 Revision 0.1.4, 20-03-2023

[Email]

Signature

\*No legal obligations of any type are associated with this document.



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