Deliverable 8.7 Dissemination and communication reporting period 3 (M25-M33)

28/02/2023

Project title	Patients-centered SurvivorShIp care plan after Cancer treatments based on Big Data and Artificial Intelligence technologies
Grant Agreement number	875406
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Website	www.projectpersist.com
Document keywords	Dissemination, Communication, Strategy, Plan
Document Abstract	The aim of this deliverable is to provide a dissemination and communication report on activities for the third reporting period in between M25 and M38 of the project execution.

DOCUMENT

Authors	Iva Velo (NPO), Anna Lyubenova (NPO)
Internal reviewers	Umut Arioz (UM), Alberto Sanchez (GRAD), Ignacio García (GRAD)
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ACKNOWLEDGEMENT

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Executive Summary

This document highlights the dissemination and communications activities of the PERSIST project that were carried out during the third reporting period (M25-M38). The activities have mostly focused on participating in events, where the project could be presented, publications and various online and digital dissemination activities.

The project's online presence and dissemination efforts have been successful, with a regular traffic of unique visitors to the project's website. In addition to the website, the project was able to establish a presence in other online outlets, including social media (Facebook, Twitter, LinkedIn), Academia research portals (Research Gate) and video sharing (YouTube). The project also made efforts to reach a wider audience by preparing newsletters, press releases and starting collaboration with major European representative organizations. We have a set agreement in place with Digestive Cancers Europe to be an active partner in all our dissemination activities, including event participation and representation.

In total, during this third reporting period, the following activities were executed:

Dissemination activity	M25-M33
Press releases	3
Non-scientific and non-peer-reviewed publications (Newsletter)	4
Flyers	1
Social media channels active	5
Website	1
Media publications / campaigns	14
Scientific, peer-reviewed publications	27
Participation to conferences	10
Participation to workshops	5
Participation to other events	11
Video/Film	12

Table 1. Dissemination and communication activities performed during periodic report 3

Up to this point the stakeholders engaged online in PERSIST amount up to approximately 4,700 stakeholders All the project's relevant information and activities can be found on the project's website.

Introduction

This deliverable is under the execution of WP8 "Awareness raising activities and business development". WP8, in general, is a horizontal component among the rest of the project work packages and its main goal is to supervise the integrity and consistency of all the dissemination activities. A thorough presentation of all the dissemination and communication activities that took place during the last year are presented in the sections below.
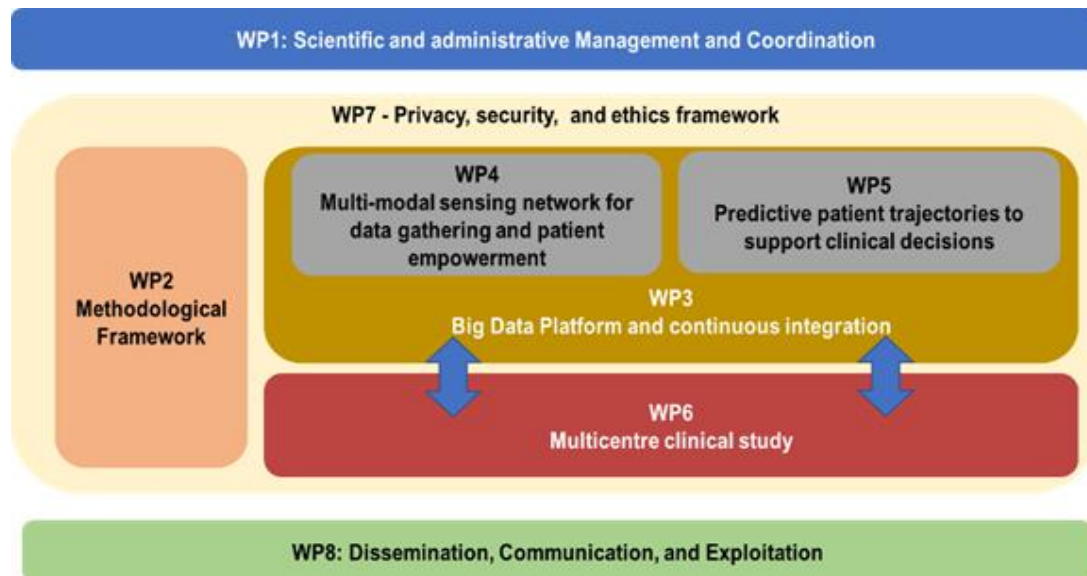

Figure 1. WP relations diagram

Deliverable 8.7 concerns all dissemination and communication activities that have been conducted during the third reporting period (M25-M38) to spread its results to the various stakeholders. Those activities include mainly the identification of the key stakeholders and the contact the consortium held with them, all the liaison activities and initiatives that took place during the third year, the collaboration with other projects and organizations, the participation in conferences and workshops.

Specifically, this deliverable reports the activities done within the following tasks:

➔ Task 8.1 Awareness, Communication and Marketing Strategy Plan.
➔ Task 8.2 Scientific dissemination.

Dissemination Strategy Plan Overview

The Consortium has followed a series of dedicated activities, which were outlined in the D8.1 "Awareness, Communication and Marketing Strategy Plan" and the updated plans delivered in D8.5 "Dissemination and communication report year 1" and and D8.6 "Dissemination and communication report year 2". The lasts included an updated strategy plan for the period from M25 to M38 In order to disseminate the projects' progress and results with the objective to spread the new knowledge gained to all stakeholders, and more importantly to get feedback from them. The goal of this section is to present an overview of the dissemination plan as it was depicted at the beginning of the project and to report on the dissemination activities that have already been performed during the final year (M25 to M38).

1. Dissemination and communication strategy overview.

PERSIST's communication and dissemination strategy was carefully crafted and updated to ensure it effectively reached its intended audience. To achieve its primary objectives of promoting the project, raising awareness, and disseminating knowledge, the strategy outlined specific activities, assigning roles and responsibilities to PERSIST partners. Deliverable D8.1 presented the plan, which included clear, coherent messages tailored to different target groups, reflecting their diversity. It also included a communication channel overview, a guide to address data protection issues, and a detailed plan plan for disseminating project results.

To engage key stakeholders, such as patient associations, healthcare providers, policymakers, and the health tech industry, PERSIST partners presented the project's objectives at conferences, industry events, academic and research events, and seminars. They also produced branded materials, project presentations, newsletters, press releases, leaflets, posters, and information campaigns to enhance the project's graphical identity and convey its main messages to a wider audience. Scientific publications and other channels were also utilized to disseminate project objectives and results.

PERSIST's online presence was a success, generating regular traffic on its website and establishing a presence on social media, academia research portals, and video-sharing platforms. The consortium even established collaboration agreements with major European representative organizations, such as Digestive Cancers Europe, to broaden its reach.

The strategy was implemented with great care, ensuring that appropriate audiences were reached, and the desired impact was achieved. By aligning all the activities carried out, PERSIST's communication and dissemination strategy was successful in engaging stakeholders, raising awareness, and disseminating knowledge, thus achieving its primary objectives.

2. Dissemination and communication activities performed during the third reporting period.

In this deliverable, a concise description of the dissemination activities that have taken place so far is provided. The essential tools used by the project, such as videos, promotional materials, digital materials, and partnerships, are outlined. Additionally, all materials produced during the final period of the PERSIST project are described. Information regarding the website and regarding all events and publications that took place throughout the final reporting period are provided.

Throughout the project, the consortium members made concerted efforts to maximize the visibility of the PERSIST initiative through various channels. For example, all members distributed the quarterly newsletter produced by the project through their own channels and contacts. Relevant events were also communicated through the partners' channels, while the project was promoted through contacts with the European Patients' Forum (EPF), the National Patients' Organization (NPO), and Digestive Cancers Europe (DiCE) and associated organizations, which together encompass over 250 patient organizations, thus making PERSIST a pole of attraction for anyone interested in the project's initiatives.

The dissemination of the PERSIST project's activities and results was considered an integral part of the project activities. The main objectives of the project's dissemination were:

➔ Increase the visibility, comprehension of the project goals within Europe, different stakeholders, consortium members, and partners.

➔ Reach a large public and create new connections with external actors such as medical organizations, IT companies, patient organizations (patients themselves), the scientific community, civil society and other related parties.

➔ Promote the proposed solution towards use, future improvement, and implementation.

➔ Highlight the result of the PERSIST project and activities (deliverables, progress, publications, etc.) throughout the project steps.

It is important to note that all materials and graphical pieces produced can be found in the PERSIST repository (accessible to all consortium partners), which are concisely presented in the following sections of this deliverable.

Communication and dissemination activities

During the first year of project PERSIST a set of tools, methodologies and communication actions addressing the external audience have been thoroughly selected and tailored to the context, considering the existence of a main objective, and multiple secondary goals specifically defined according to different local, national, and European levels, diversity of targets or the level of interaction sought:

➜ PERSIST Video materials.

➜ PERSIST Website and social media accounts.

➜ PERSIST Partnerships.

➜ PERSIST Meeting, events, and publications.

➜ PERSIST Overview.

A set of different reports in T8.1 and T8.2 summarize the work done in terms of communication and dissemination activities. Those are:

DELIVERABLE	DELIVERABLE TITLE	DUE DATE	TYPE
D8.1	Awareness, Communication and Marketing Strategy Plan	M3	Public Report
D8.2	PERSIST project Online/ Digital Presence	M3	Public Report
D8.5	Dissemination and communication report year 1 and updated strategy plan for year 2	M12	Public Report
D8.6	Dissemination and communication report year 2 and updated strategy plan for year 3	M24	Public Report
D8.7	Dissemination and communication report year 3	M38	Public Report

Table 2: Deliverables

Based on the above mentioned, the following materials have been produced during the lifespan of the project, in accordance with the project outline and the first draft of the communication strategy.

1. Video materials

Video is a versatile way to produce content that is easily shared across multiple channels. People enjoy watching videos, because they are not only entertaining and engaging, but also easier to digest. Video is so widely accessible to anyone with internet access to watch in a suitable time.

Therefore, the following informational videos were produced for the purposes of project PERSIST. All video materials have been distributed to the consortium partners, to be disseminated through their channels of communication.

- PERSIST Patients' bracelet usage videos.
- PERSIST General information videos.
- PERSIST GDPR Protection videos.
- PERSIST Videos on the Medical Device Certification Roadmap.
- PERSIST Videos from events.

1.1. PERSIST GDPR Protection videos.

The General Data Protection Regulation (GDPR), Europe's framework for data protection laws, has a significant impact on healthcare organizations. In this increasingly patient-centric world where global healthcare organizations collect a wide set of information on patients to provide better health outcomes, this increased regulation has an even bigger impact.

Personal data concerning health includes all data on a person's health status that reveals information relating to that person's past, current or future physical or mental health status. As they come within a person's most intimate sphere, unauthorised disclosure may lead to various forms of discrimination and violation of fundamental rights. For this reason, Regulation 679/2016 (GDPR) establishes that certain types of data fall under a special category of personal data, including health data, and they require additional protection as they can go to the very private sphere of a human being. Furthermore, the Member States can maintain or introduce further conditions, including limitations for the health data processing. Therefore, the videos were made, by the consortium partners, in clear and understandable for the patients' manner. The main points showcased in the GDPR presentation videos are:

- What is personal data?
- Examples of sensitive data (including health data)
- What is data processing?
- GDPR roles

While preparing the videos, special attention has been given to clear and simple explanations, in order to be easily understandable and explain in simple manner the details around GDPR, without causing confusion.

Persist GDPR 1

Persist GDPR 2

Persist GDPR 3

Figure 2. PERSIST GDPR videos screenshots.

Links to the published videos:
➔ GDPR 1 video

➔ GDPR 2 video

➔ GDPR 3 video

1.2. PERSIST Videos on the Medical Device Certification Roadmap

T8.3 focused on the Certification Roadmap for Medical Devices Software; the roadmap was created on the basis of the MDR, the Regulation for the CE marking process for Medical devices in Europe.

The MDR (EU) 2017/745 is a legal document that cannot be easily interpreted. For this reason, CEL decided to make five explanatory and informative videos that go through all steps of the roadmap. In particular, the videos show the path that each class IIa and IIb MDSW must go through in order to be placed on the European market. The videos also explain the distinction of the classes and how they are allocated.

The five videos describe the following topics:

➔ Medical Device Software: the regulatory framework

➔ Evaluation of the Software as medical

➔ Classification of the Medical Device Software

➔ MDSW Certification Roadmap (the remaining steps)

➔ Trailer of the four videos for public dissemination

The videos show in an illustrative and voice-over style all the steps outlined in the Roadmap to provide an immediate and easy-to-understand tool for all possible stakeholders.
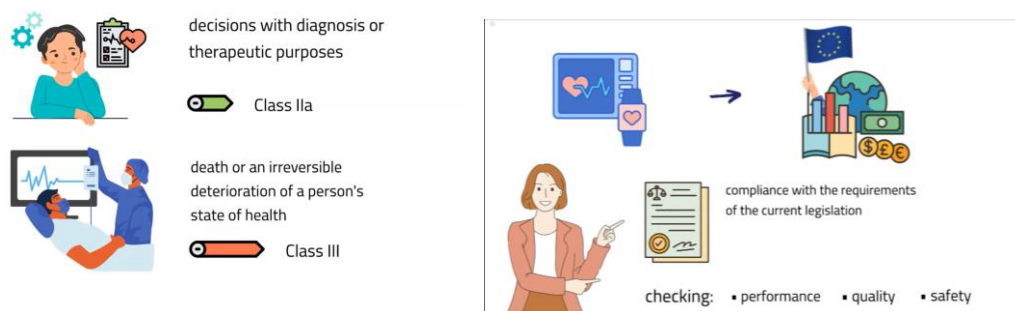

Figure 3. PERSIST Roadmap videos screenshots.

1.3. PERSIST Videos from Events and Webinars

The COVID-19 pandemic has heavily affected not only our everyday lives, but also events worldwide. To adapt to the situation and to be in line with all restrictions and healthcare recommendations, we adopted new event delivery models – by either going entirely digital or embracing hybrid digital and in-person solutions. As both mediums include video recording, we have decided to upload all video recordings online (on our YouTube Channel), to be available to the wider audience on demand. Therefore, most of our recorded events can be easily accessed and viewed at the same time by people, who could not join the event and by people, who would like to recall on important information and conclusions on PERSIST.
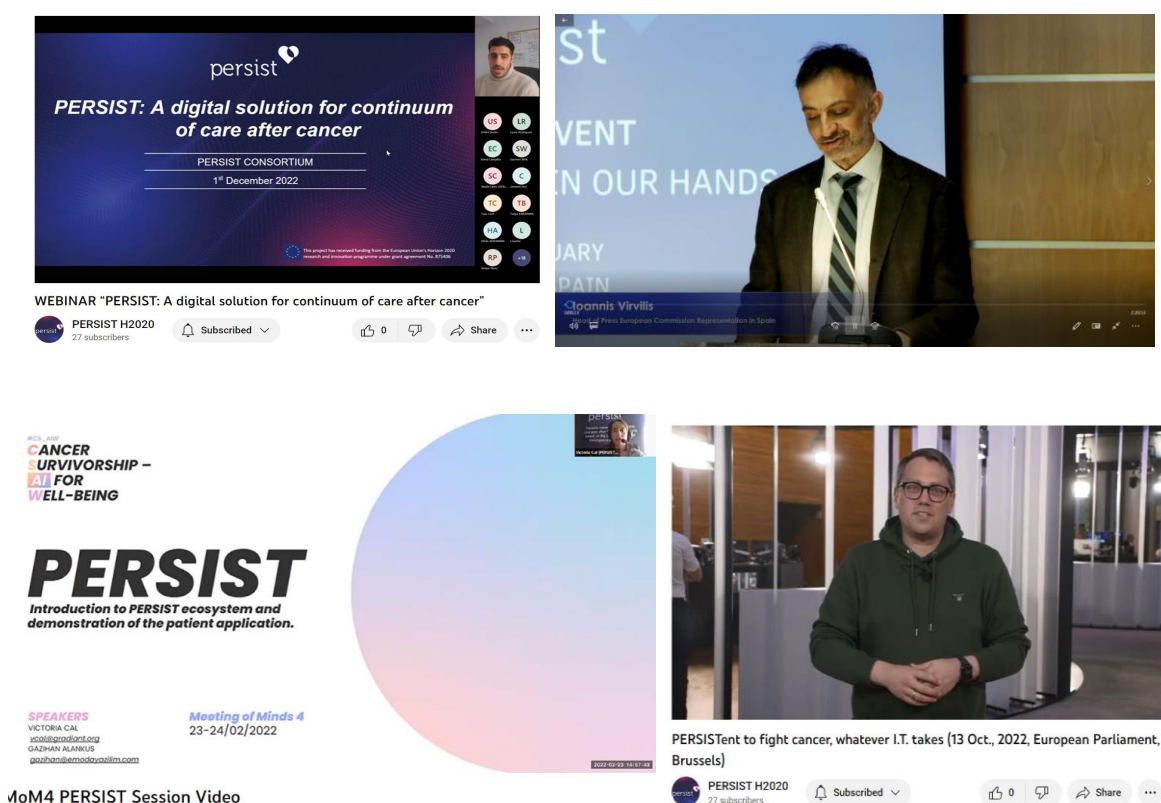
Figure 4. PERSIST Videos from Online events and Webinars (screenshots).

Links to the main recording:

➔ *PERSIST at the EU Parliament video*
➔ *PERSIST webinar video*
➔ *PERSIST final event video*

2. PERSIST Website and social media accounts.

2.1. PERSIST Website

One of the most important milestones and channel of communication for the PERSIST project is its website. The website can be found in the following link: https://projectpersist.com/

On the website the visitor can find all the materials related to the PERSIST project, consortium contacts, and related news, as well as to subscribe for the project's Newsletter and in this way be part of the PERSIST community. Some new features added to the website during the third year of the project are the Publications and Deliverables sections.

These new additions show a better insight to PERSIST and are contributing in the following way:

➔ **Publications** – provide valuable content produced by all consortium partners, including text, images, or other audio-visual content, including paper (newspapers, magazines, catalogues, etc.), journals, etc. The publications are written on different topics related with the project.

➔ **Deliverables** – section shows all the outputs, that are submitted within the scope of a project PERSIST and are classified as "Public" deliverables. They can also be easily downloaded from the page.

Therefore, the current website map structure looks in the following way:
➔ Home/ Main page

➔ About

➔ For Patients

➔ For Professionals

➔ Supporters

➔ News

➔ Blog

➔ Publications

➔ Media

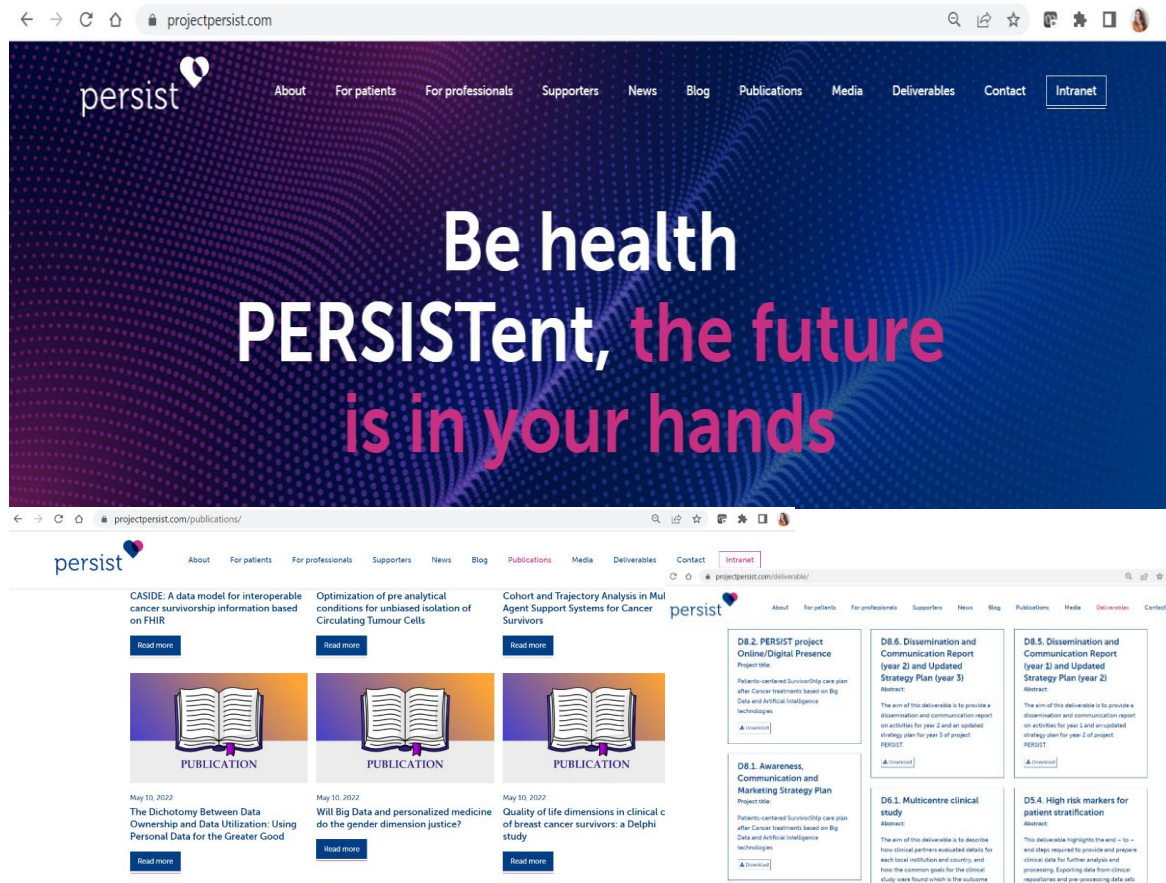➔ Deliverables

➔ Contacts

➔ Social Networks buttons

Figure 5. New features on PERSIST Website

2.2. Social media accounts

Social media has become a very popular means of disseminating information fast across heterogeneous target groups. These channels serve on-demand access to content anytime, anywhere, and on any digital device. To extend the projects' target audience (specially to involve the great public and not only sector experts) PERSIST is integrating these media tools strategically in the communication activities.

Twitter, LinkedIn, Facebook, YouTube and ResearchGate have been selected as the most appropriate social networks to promote the project achievements, news, and outcomes. NPO, as WP8 leader, acts as moderator of all channels, that means, control and filter inadequate contents and monitor the suitability and relevance of information to be published.

SOCIAL MEDIA	ACCOUNT / PROFILE	LINK	FOLLOWERS
	@PERSIST_H2020	Twitter	109
	PERSIST H2020	LinkedIn	269
	PERSIST.H2020	Facebook	85
	PERSIST H2020	YouTube	28

Table 3: Segmentation of PERSIST external audience.

The content chosen to be published on these accounts, throughout the year, has been carefully selected. It covers various areas and different topics, related to the project and its targets and outcomes. In addition, we follow all external and related news, which are cross-posted on the different platforms. It is important to note, that all information given is retrieved from trustworthy sources and it has been validated before published.

A social media campaign was carried out in the months of February and March of 2022, dedicated to the World Cancer Day (February 4th) and World Colorectal Cancer Month (March). The consortium partners provided their reflections and quotes, related to the project and special visual identity was developed for these. Quotes were published in serries during the whole period.

Figure 6. Examples of quotes published in social media during the campaign.

3. PERSIST Partnerships

During the last period of the project and in accordance with the strategy plan developed during the first year, all consortium partners were aiming at widening the PERSIST partnership network. Once again, during 2022 active support was received by the European Patients' Forum (EPF) and Digestive Cancers Europe (DiCE), who contributed towards many PERSIST dissemination activities. They have assisted towards the following activities: forwarding PERSIST related news to their contact network, publishing PERSIST information on their Newsletters and Websites, disseminating information on PERSIST on their events and workshops, assisting with finding appropriate information for patients, distributing the patient survey among members and patients, supporting other communication activities on an ad-hoc basis.

In June 2022 the PERSIST consortium established a link with the EU-funded project EU4Child. Several meetings were held between the team of the two projects and valuable insights were exchanged regarding different issues, such as data protection and databases experiences.

3.1. Cancer Survivorship - AI for Well-being Cluster

Another action towards a better project visibility has been the joining of PERSIST to the "Cancer Survivorship - AI for Well-being" Cluster (CS_AIW). The cluster unites more than 10 European projects working on the design of smart digital tools, aimed at helping cancer patients and survivors safeguard and improve their Quality of Life. The cluster holds joint initiatives supporting larger dissemination.

In February PERSIST 2022 participated in a two-day event "Meeting of Minds 4 – How can technology better support patients?", organized by the cluster where project PERSIST and its main advantages were presented. Later the PERSIST consortium partners prepared a report from the event and distributed it largely among diverse stakeholders.
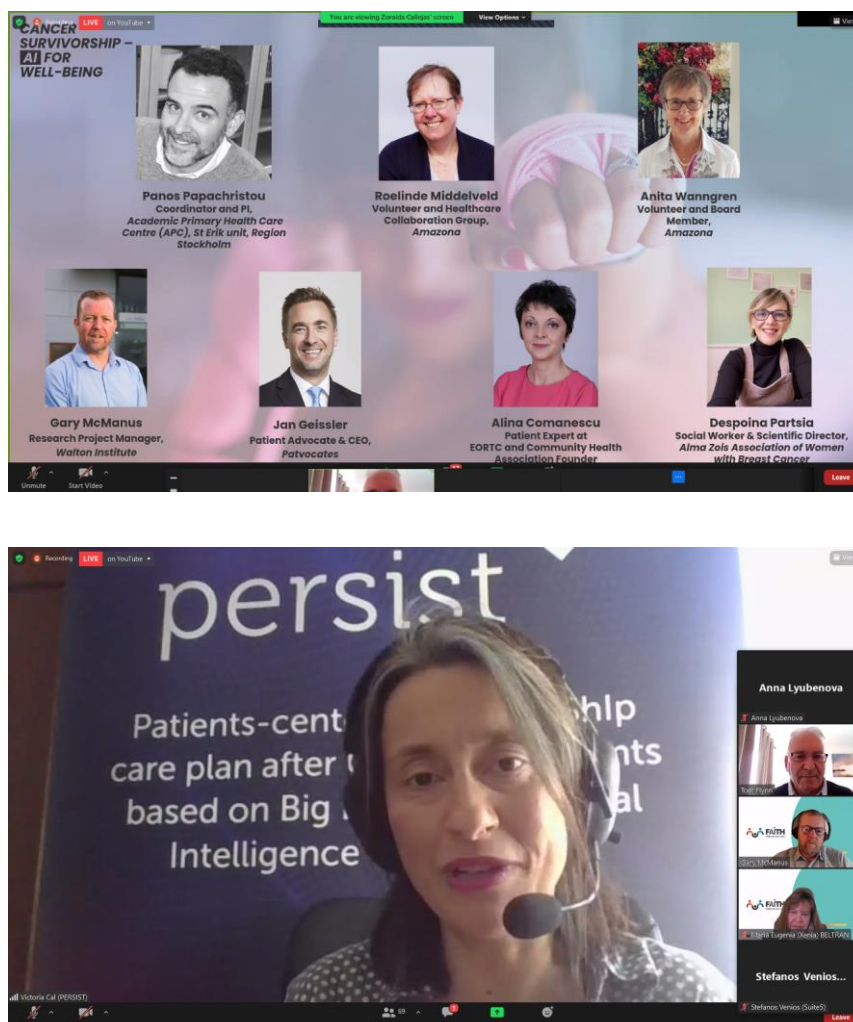

Figure 7. Meeting of Minds 4 online event (screenshots)

The partnership with the CS_AIW Cluster continued during the year with monthly meetings, exchange of documents and events information and joint work on several dissemination outputs: a white paper, podcast, a better practice guide and events. This partnership gave PERSIST the opportunity to collaborate with the following EU-funded projects:

➔ **LIFECHAMPS** – focused on integrated cancer care for the older cancer champions based on Big-Data and quality of life behaviour.

➔ **ONCORELIEF** – working to improve the Quality of Life and developing mobile applications for cancer patients after treatment and for clinicians.

➔ **MENHIR** – working on mental health monitoring through interactive conversations.

- **QUALITOP** – monitoring multidimensional aspects of Quality of Life after cancer Immunotherapy and developing an open smart digital platform for prevention and patient management.

- **CLARIFY** – developing actionable knowledge for improving cancer long survivors' Quality of Life.

- **ASCAPE** – working on an AI-powered framework, clinical testing, and patient engagement.

- **REBECCA** – developing a patient mobile application and a web browser plugin to improve intervention of care choices and analyze data to better understand how treatment affects Quality of Life.

- **CAPABLE** – *aiming to develop a support system for improving the Quality of Life of cancer home patients by combining technologies with socio-psychological models and theories.

- **FAITH** – addressing post-treatment consequences of anxiety and depression through Artificial Intelligence based technologies.

Finally, we will participate in the face-to-face gathering in Madrid on the 11th and 12th May 2023.

3.2. Consortium partner's websites and social media

Most partners have regular newsletters and regular posts on their own websites and social media accounts. These channels are and will be used further to disseminate the activities of the project regularly. Related posts to PERSIST were published by partners in their native languages on their own webpages, describing the aims, progress, and expected outcomes of the project.

Figure 8. Consortium partners website

4. Meetings, events, and publications.

In context of COVID-19 crisis, many of the targeted and identified events were conducted under an online or hybrid medium. Therefore, not all events were attended in person, but rather online. However, as the dynamics of the COVID-19 situation is ongoing, the consortium partners and other organizations are adapting to it and new methods of conducting the events are developed and exploited in a very good manner.

4.1. PERSIST events summary.

PERSIST partners collaborated on disseminating PERSIST activities to their national and local audience, taking advantage of the close network they have in their own country.

Networking events at national level is one of the activities to be carried out by national consortia.

Besides the national events organized by the PERSIST consortium, all partners have spent an important part of resources in participating and disseminating PERSIST project results at external third party's events that are addressed to potential PERSIST audience groups and aligned with PERSIST objectives.

The following table summarizes the participation of PERSIST partners in own events or third parties' events:

Event Name	Date	Place / Country	Partner
Meeting of Minds 4	23-24.02.2022	Virtual	GRAD, EMO
in4aha - Innovation Network for Active and Healthy Ageing - Webinar: Telehealth and health systems resilience	10.03.2022	Virtual	GRAD
31st Conference MEDICINE, LAW AND SOCIETY	25-26.03.2022	Hybrid	UM, UKCM
7th URV Doctoral Workshop in Computer Science and Mathematics	31.03.2022	Spain	UM
Valais/Wallis AI Workshop 8th edition	02.05.2022	Switzerland	HESSO
ICIC22 - 22nd International Conference on Integrated Care	23-25.05.2022	Denmark	GRAD
Global Meet on Sensor and Sensing Technology (Sensor-2022)	20-22.06.2022	Virtual	UM
Patient Workshop	21.06.2022	Spain	SERGAS, GRAD, EMO
Clustering Activity with similar EU Funded projects	28.06.2022	Belgium	UM
Workshop 2022 PhD Programme of Information and Communication Technology of the University of Vigo	10.06.2022	Spain	GRAD
ENJIO - ENCONTRO NACIONAL DE JOVENS INVESTIGADORES EM ONCOLOGIA	24.09.2022	Portugal	RUBY
AUTOMAHEALTH	26-27.09.2022	Switzerland	GRAD
GRADIANT DEMOWEEK	04.10.2022	Spain	GRAD
International Symposium on Applied Geoinformatics (ISAG2022)	12-14.10.2022	Greece	UM

PERSISTent to fight cancer, whatever I.T. takes	13.10.2022	Belgium and hybrid	NPO, GRAD, CHU
18th International Conference of Computational Methods in Sciences and Engineering	26-29.10.2022	Greece	UM, GRAD, EMO
Meine Gesundheit- mein Betrieb	14.11.2022	Austria	SYMP
Inauguration of the Comprehensive Cancer Center Arsène Burny	2-3.12.2022	Belguim	CHU
VIII Symposium Liquid Biopsy	26-28.01.2023	Spain	RUBY
Health Tech Lunch - Axe Sante'	10.02.2023	Switzerland	HESSO
7th Annual Liquid Biopsy for Precision Oncology Summit	14-16.02.2023	USA	RUBY
We PERSIST. The future is in our hands	15.02.2023	Spain	PERSIST consortium
Stakeholder Meeting & Expert Panel of Cancer Care Beacon project	16-17.02.2023	Croatia	UM
Results presentation event for project participants	23.02.2023	Latvia	UL
Dissemination event for health professionals	28.02.2023	Latvia	UL

Table 4: PERSIST events participation in 2022-2023

Events summary and photos:

Presentation of the project, the study, and our experiences. Active engagement in the discussion. Representatives from multiple EU funded projects and EC were present at the event.

Health Days - Smart4Health
Needs, concerns and expectations for the future of digital health

The workshop was to outline research challenges and cross WP4 and WP5 developments for the final leg of project PERSIST with focus on integration E2E disease centric discourse and the Patient Risk Assessment and Symptom Tracking into PERSIST workflow.

A technical workshop on patient sensing network

Presentation of PERSIST ecosystem in a poster session.

Participation in the "European Project Impact on Integrated Care" workshop with an elevator pitch of PERSIST H2020 project.

ICIC22 - 22nd International Conference on Integrated Care

Presented project PERSIST as an example of how to move from basic research at TRL1 to TRL3 and the challenges research is tackling when moving to experimental, close to real-life conditions. The focus was on the collection of real-world data and how AI can improve the process.

7th URV Doctoral Workshop in Computer Science and Mathematics

PERSIST consortium organized a hybrid event in the European Parliament on October 13, 2022. The event aimed to raise awareness and improve the understanding among stakeholders on the key benefits from project PERSIST and other projects alike, and to encourage the long-term commitment and engagement of policymakers and stakeholders on supporting and further developing similar projects.

**PERSISTent to fight cancer,
whatever I.T. takes**
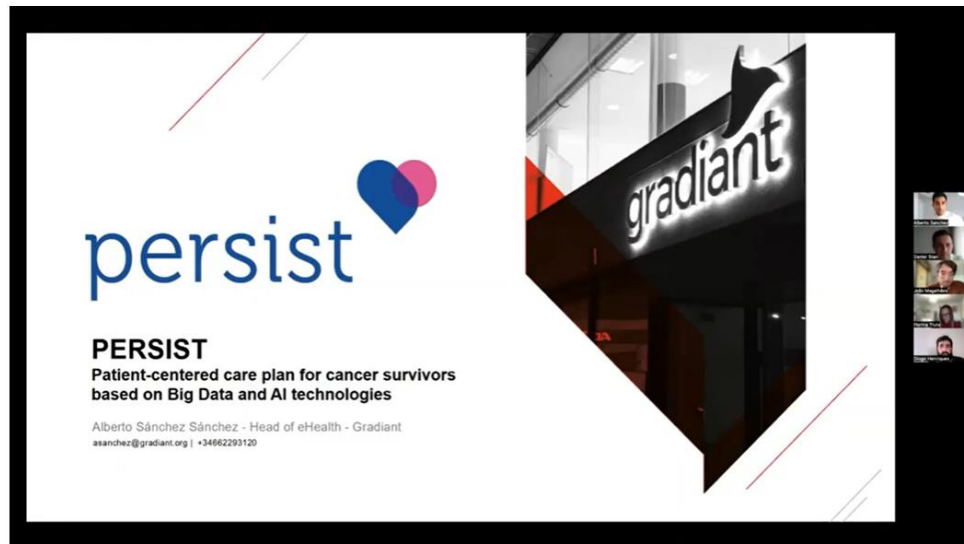
IN-4-AHA: "Telehealth and health systems resilience"

A presentation of the PERSIST project to a scientific community. Axe Santé at HES-SO Valais-Wallis provides the opportunity to enhance scientific divulgation via periodically health tech presentation.

Health Tech Lunch - Axe Santé HES-SO Valais-Wallis

Introducing the PERSIST innovative platform to the health professionals and Project results.

Dissemination event for health professionals at the University of Latvia

Presentation of the PERSIT project and specific technologies, as real-world data and AI represent the key enables of patient-centric survivorship.

The session was dedicated to discussing the use of real-world data, big data, information technologies, and artificial intelligence to support cancer survivors.

18th International Conference of Computational Methods in Sciences and Engineering

4.2. PERSIST Event at the European Parliament - PERSISTent to fight cancer, whatever I.T. takes

In the Cancer Awareness Month, the PERSIST consortium organized a hybrid event in the European Parliament on October 13, 2022. Among other objectives, the event aimed to raise awareness and improve the understanding among stakeholders on the key benefits from project PERSIST and other projects alike, but also to encourage the long-term commitment and engagement of policymakers and stakeholders on supporting and further developing similar projects.

The event was supported by the MEP Tiemo Wölken, Co-chair of the MEP Interest Group on Equitable Access to Healthcare. In his welcoming video message MEP Wölken stated the following: "*Medical innovation has always been important for human development and the digitalization of the field has huge potential for patients, professionals, and society. However, digital technologies also come with significant risk, which needs to be addressed through legislation. People need to be able to trust AI algorithms. AI systems need to be neutral and fair in order to ensure a non-biased and non-discriminatory outcome.*"

The event was moderated by Dr. Stanimir Hazardzhiev, Director General of the National Patient's Organization.

Alberto Sánchez, coordinator of PERSIST from GRADIANT presented the impact of PERSIST for patients, medical specialists, and caregivers. He emphasized on the added value of PERSIST, which includes better understanding of cancer survivorship, reference and guidelines for survivors' care strategies, development and validation of new technology tools, interoperable and scalable data platform, AI models, liquid biopsy, applications, and interaction models, patient engagement and empowerment.

Marcela Chavez from CHU de Liege, a clinical partner in PERSIST, presented the value of data in PERSIST and specified the types of data PERSIST collects and how these can increase the Quality-of-Life of Cancer Survivors. She also made a demonstration of PERSIST mHealth and mClinician apps.

Tom Flynn from the TFC Research and Innovation Limited, also a coordinator of the CS_AIW Cluster, presented the cluster and the matter of the collaboration which focuses on key areas including patient Quality-of-Life, clinical, technical, and business issues as collectively determined by its members. "*We learn together and from each other. We don't work in silo!*" Mr. Flynn stated.

The panel on Reflections on the digitalization in Europe, considering the Cancer awareness month included three speakers. Emanuelle Huck, a programme/policy officer at DG CONNECT of the European Commission spoke about the digitalization and cancer. She

stated that digital technologies have value across the key pathway from prevention, early detection and diagnosis, treatment and further Quality-of-Life of patients and survivors. She presented the European Health Data Space, which will facilitate the sharing of data, and the Health in Digital Europe Work Program 2021-2022. Mrs. Huck gave examples of AI-based tools and methods for advancing personalized prevention, early detection and diagnosis, treatment and care and monitoring of patients.

Geert Thienpont, Managing Director i~HD talked about the importance of health data for cancer care and research. He stated that patients want to use digital health tools and analysed the spectrum of data use – from individual level health data, through population level health date to big health data.

The patient perspective was presented by Aleksandra Kaczmarek, Policy Manager of Digestive Cancers Europe (DiCE). She stressed on the important of security of health data and of data interoperability. Digital health eco-system should be patient centered, should ensure policy and data cohesion to create a truly functional single market for digital health data, make health data accessible for all and protect misuse of health data.

Figure 9. Agenda and Screenshot from the opening statement of MEP Wölken

Keynote Speakers and High-level Representation:

MEP Tiemo Wölken, Co-chair of the MEP Interest Group on Equitable Access to Healthcare

Tom Flynn, Innovation and Business Development Manager, TFC Research and Innovation Limited

Emanuelle Huck, Programme/Policy officer, DG CONNECT (European Commission)

Geert Thienpont, Managing Director, i~HD (The European Institute for Innovation through Health Data)

Aleksandra Kaczmarek, Policy Manager, Digestive Cancers Europe (DiCE)

4.3. PERSIST mini-symposia session on ICCMSE 2022

The PERSIST Consortium organized a mini-symposia session on Digital Health Interventions and Big Data for Personalized Cancer Survivorship within the 18th International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2022) which took place on October 26-29, 2022 in Crete, Greece.

The session was dedicated to discussing the use of real-world data, big data, information technologies, and artificial intelligence to support cancer survivors and patients. Topics of discussion included focus on cancer survivors and patients, improving (HR) QoL using real-world data and many more.

The topics, within which participants could submit abstracts were as follows:

➔ Real-world Data for value-based healthcare

➔ Ethics and GDPR for re-use of real-world and clinical data

➔ Personalized, patient-centered design and applications

➔ Data Harmonization, Aggregation, and Curation

➔ Clinical Decision support systems

➔ Computer Models, Methods, Algorithms

➔ Software, Information Systems, Web Applications

➔ Artificial Neural Networks, Machine Learning

➔ Social Sciences and Humanities

➔ Related Topics

Figure 10. ICCMSE Conference participation

4.4. 4Webinar - PERSIST: A digital solution for continuum of care after cancer.

On December 1st, 2022, the consortium held a webinar for professionals. During the webinar the participants will be able to observe:

➔ Demonstration of the mHealth app of PERSIST, including questionnaire, CTCs, diary recording functionality and extraction of signs of depression and symptoms from diaries.

➔ Demonstration of the disease centric discourse functionality and alert system.

➔ Value of the collected data and trajectories for the care plans.

➔ Clinical Decision Support System, mClinician app.

Figure 11. PERSIST webinar December 1st, 2022.

4.5. PERSIST final event - We persist! The future is in our hands.

Under this slogan the PERSIST consortium held the closing conference for project PERSIST in Madrid on February 15th, 2023. The event took place in the headquarters of the European Commission Representation in Spain and was opened by **Mr. Ioannis Virvilis**, Head of Press of the European Commission Representation in Spain.

The main merits of PERSIST, including its overall approach and care model, the clinical outcomes and the exploitation opportunities were presented by **Alberto Sánchez**, project coordinator form Gradiant, **Dina Bema**, PERSIST clinical leader from the University of Latvia and **Iñaki Galera**, leader of PERSIST exploitation strategy from Dedalus.

The special highlight of the event was the participation of cancer survivors, who had taken part in the clinical study in the University of Lativa and in Chu de Liege. They talked about their perspective – what the participation in PERSIST brought to them, what were the advantages and challenges of being a clinical study participant. Consortium partners and event guests were able to hear from the patients their concrete needs and recommendations for technology solutions in cancer survivorship care.

During the roundtable discussion, moderated by Anna Lyubenova from the National Patients' Organization, distinguished professionals in healthcare technology were able to present their views on cancer survivor empowerment, the importance of patient-centred design and co creation, as well as on the role of innovation and Artificial Intelligence in changing healthcare processes. The roundtable discussion participants were: **Helena Fernandez, Visiting Professor from the University of Minho, Portugal; Laura López Pérez, PostDoc researcher at the Life Supporting Technologies group of the Polytechnical University of Madrid; Gaetano Manzo, PostDoc Research Fellow at the National Library of Medicine - National Institutes of Health, USA; Sara Abalde-Cela, Chief technology officer of RUBYnanomed.**

In his closing keynote speech **Mr. Marcis, Leja, Director of the Institute of Clinical and Preventive Medicine at the University of Lativa,** featured PERSIST's added value for clinical practice from the perspective of the European Commission Cancer Beating Plan.

Figure 12. PERSIST final event

4.6. 4PERSIST media reflections

During the final project year, the following media outreach has been realised regarding PERSIST:

Media	Publication Title	Partner
Net TV	PERSIST press conference: Podpora bolnikom po zdravljenju raka, tv clip	UM, UKCM
TV Maribor	PERSIST press conference: Za boljšo oskrbo bolnikov, ki preživijo raka, tv clip	UM, UKCM
www.sta.si	PERSIST press conference: STA napovednik	UM, UKCM
Maribor info	PERSIST press conference: UKC Maribor 40 borcev z rakom opremil s pametnimi zapestnicami, ki počnejo to	UM, UKCM
ww.net-tv.si	PERSIST press conference: Podpora bolnikom po zdravljenju raka	UM, UKCM
Radio Maribor	PERSIST press conference: Projekt Persist naj bi pripomogel k lažjemu vodenju zdravljenja, radio clip	UM, UKCM
Radio City	PERSIST press conference: V okviru evropskega projekta PERSIST opremili 40 oseb z apliakcijo, radio clip	UM, UKCM
Radio 1	PERSIST press conference: Spremljanje pacientov po zdravljenju raka, radio clip	UM, UKCM
Večer	PERSIST press conference	UM, UKCM
www.sta.si	PERSIST press conference	UM, UKCM
Maribor info	PERSIST press conference	UM, UKCM
24hours	Bulgaria contributes for an international study on colorectal and breast cancer https://www.24chasa.bg/index.php/bulgaria/article/13743125	NPO
Portuguese national television	"Sociedade Civil", RTP	RUBY
Radio 3 Spain	Participation in the radio program 'Fallo de sistema', introducing the project PERSIST 594: Construyendo el futuro desde Vigo - 04/03/23 (rtve.es)	GRAD

Table 5: PERSIST Media impressions in 2022-2023

4.7 PERSIST publications summary

Citations of the publications (scientific, peer-reviewed conferences and journals) made in 2022 are:

Publication	Status
An LSTM-based model for the compression of acoustic inventories for corpus-based text-to-speech synthesis systems	published
Establishing an Expert Consensus on Key Indicators of the Quality of Life among Breast Cancer Survivors: A Modified Delphi Study	published
Cal-González VM, González-Castro L. Interoperable Medical Application for CTC Counting. Stud Health Technol Inform. 2022 Jun 6;290:979-980. doi: 10.3233/SHTI220227. PMID: 35673165.	published
LR Pires, A Carneiro, C Lopes, T Pesqueira, P Piairo and L Diéguez "Study of pre-analytical factors in Circulating tumor cell enrichmentusing the RUBYchipTM" VII Symposium liquid Biopsy 26-28 January 2022.	published
Arioz, U.; Smrke, U.; Plohl, N.; Mlakar, I. Scoping Review on the Multimodal Classification of Depression and Experimental Study on Existing Multimodal Models. Diagnostics 2022, 12, 2683. https://doi.org/10.3390/diagnostics12112683	published
Umut Arioz, Izidor Mlakar, Valentino Safran, Multimodal E2E Framework for Depression Classification: Preliminary Results, 18th International Conference of Computational Methods in Sciences and Engineering 26 – 29 October 2022	published
Valentino Šafran, Umut Arioz, Izidor Mlakar, HL7 FHIR Healthcare Digital System for Patient Data Incorporation & Visualization, 18th International Conference of Computational Methods in Sciences and Engineering 26 – 29 October 2022	published
Urška Smrke, Izidor Mlakar, Umut Arioz, and Nejc Plohl, Artificial Intelligence-Based Detection of Cancer Survivors' Depression Cues: A Narrative Review, 18th International Conference of Computational Methods in Sciences and Engineering 26 – 29 October 2022	published
Daniel Hari, Bojan Musil, Izidor Mlakar , Dialog Management System for Pepper Robot on HoSmartAI Platform, 18th International Conference of Computational Methods in Sciences and Engineering 26 – 29 October 2022	published
Shaila Calvo-Almeida, Ignacio Serrano, Multichannel Fluorescence Microscopy Images CTC Detection: A Deep Learning Approach, 18th International Conference of Computational Methods in Sciences and Engineering 26 – 29 October 2022	published
Kadir Üğüdücü1, a), Tunç Cerit1, b) Amine Gonca Toprak1, c), Gazihan Alankuş, mHealth Application for Cancer Care Delivery, 18th International Conference of Computational Methods in Sciences and Engineering 26 – 29 October 2022	published
Matej Horvat, Maja Ravnik, Dina Bēma, Inese Poļaka, Krista Arcimoviča, Anna Marija Leščinska, Marcela Chavez, Maja Molan, Liliana Pires, Patrick Duflot, Valérie Bleret, Urška Smrke, Ariadna Mato Montero, Beatriz Calderón Cruz, Data collection and usability clinical study results, 18th International Conference of Computational Methods in Sciences and Engineering 26 – 29 October 2022	published
MLAKAR, Izidor, TEMENT, Sara, HORVAT, Matej, RAVNIK, Maja, FLIS, Vojko, SMRKE, Urška, et al. Establishing an expert consensus on key indicators of the quality of life among breast cancer survivors: a modified Delphi study.	published
ROJC, Matej, MLAKAR, Izidor. An LSTM-based model for the compression of acoustic inventories for corpus-based text-to-speech synthesis systems. Computers & electrical engineering. May 2022, vol. 100, 10 str. ISSN 0045-7906. DOI: 10.1016/j.compeleceng.2022.107942.	published
G. Manzo,· Y. Pannatier, P. Duflot, P. Kolh2, M. Chavez, V. Bleret, D. Calvaresi,O. Jimenez-del-Toro, M. Schumacher, JP. Calbimonte, "Breast Cancer Survival Analysis Agents for Clinical Decision Support", Computer Methods and Programs in Biomedicine, Jan. 2023	published
Valentino Safran, Umut Arioz, Izidor Mlakar. Clinical Data Sharing and Integration of PGHD into Clinical Workflow: PERSIST Project Case Study. International Symposium on Applied Geoinformatics (ISAG2022), Greece, 12-14 October 2022.	published
Umut Arioz, Izidor Mlakar, Using Multimodal Software Sensors for Classification of Depression, Global Meet on Sensor and Sensing Technology (Sensor-2022), June 20-22, 2022 (Online).	published

ARIOZ, Umut, SMRKE, Urška, PLOHL, Nejc, MLAKAR, Izidor. Scoping review on the multimodal classification of depression and experimental study on existing multimodal models. Diagnostics. 2022, vol. 12, iss. 11, 26 str., ilustr. ISSN 2075-4418. DOI: 10.3390/diagnostics12112683.	published
MLAKAR, Izidor, VERDONIK, Darinka, MAJHENIČ, Simona, ROJC, Matej. Understanding conversational interaction in multiparty conversations: the EVA Corpus. Language resources and evaluation. Published: 10 December 2022, 31 str. ISSN 1574-020X. DOI: 10.1007/s10579-022-09627-y.	published
Horvat, Matej. Projekt PERSIST: S pomočjo umetne inteligence do proaktivnejše zdravstvene zaščite, November, 2022.	published
Tangari, Emanuela; Occhipinti, Carmela; Personalised Medicine and Gender Analysis: A Hint at the Problem for More Inclusive Technologies, ERCIM News 2022 (130) (July 2022)	published
I. Aleksandravica, D. Bema, I. Polaka, K. Arcimovica, A.M. Lescinska, I. Stonans, M. Leja. E-poster about results from Latvian patients in PERSIST study: "Compliance of breast and colorectal cancer survivors to participate in digital surveillance activities". International Scientific Conference on Medicine, University of Latvia, 2023	published
An End-to-End Framework for Extracting Observable Cues of Depression from Diary Recordings, submitted for review on 29-Jan-2023 to Journal of Digital Health, DHJ-23-0092	under review
Multilingual Framework for Risk Assement and Symptom Tracking (MRAST), joint publication co-authored with SYMP, to be sent in review in March 2023, journal yet to be selected	to be reviewed
Optimization of pre-analytical conditions for unbiased isolation of Circulating Tumour Cells, journal yet to be selected	to be reviewed
The role of CTCs in the management of Breast and colorectal cancer survivors. To be prepared with the CTC results and clinical data at the project according to the results analysis. Journal yet to be selected.	to be reviewed
Follow up of cancer survivors with PERSIST solution. To be prepared with PERSIST partners, based on the overall results obtained under the scope of PERSIST. Journal to be selected	to be reviewed

Table 6. PERSIST scientific publications in 2022-2023

5. Overview of the dissemination and communication activities

The following table shows the overall actions performed during the project.

Dissemination activity	M1-M12	M13-M24	M25-M33	Total
Press releases	3	3	3	**9**
Non-scientific and non-peer-reviewed publications (Newsletter)	3	3	4	**10**
Flyers	2	2	1	**5**
Social media channels active	5	5	5	**5**
Website	1	1	1	**1**
Media publications / campaigns	2	22	14	**38**
Scientific, peer-reviewed publications	0	13	27	**40**
Participation to conferences	11	13	10	**34**
Participation to workshops	3	6	5	**14**
Participation to other events	2	1	11	**14**
Video/Film	12	10	12	**34**

Table 7. Dissemination and communication activities performed

In accordance with D8.6 Dissemination and Communication Report and the updated plan, the key performance indicators defined were accomplished:

Action set	KPIs defined	Achieved
Press publications	8	✓
Journal publications	4	✓
Dedicated PERSIST event	2	✓
Dedicated PERSIST workshop	1	✓
Newsletter	4	✓
Joint activities	2	✓
Online engagement	3.000	✓
External newsletters	4	✓
Website blog	12	✓

Table 8. KPIs set in D8.6 and their status

Conclusions

The PERSIST dissemination and communication strategy has so far proven sufficient, as it can be observed from the sections above.

The overall balance regarding the dissemination efforts accomplished during the third year of PERSIST is rather positive, as the goals set out for the year have been accomplished with good results, based on the ongoing and unpredictable COVID-19 situation.

First, with regards to dissemination activities, all major activities proposed in the dissemination plan outlined in D8.1 have been performed, namely:

➜ Development of understandable dissemination materials

➜ Academic & Research Events participations

➜ Publications

➜ Constant improvement of all communication tools

➜ Finding synergies with partner organizations and projects

In addition to the above, the electronic means of dissemination for the project (website and social media presence) have been actively up and running, as the consortium believes that Web 2.0 tools can act as a major vessel for further spreading the vision and the developments of the project. For a second year in a roll, the utilisation of such tools revealed that PERSIST has built strong online presence with good audience numbers.

The experience of the implementation of WP8 Communication and dissemination has shown that good timing and the knowledge of how different stakeholders work can make a major contribution in ensuring the impact and uptake of project outputs.

Through activities mentioned in this report, PERSIST contributed to successful awareness-raising about the added value and potential of big data technology for making fundamental changes in care delivery for cancer survivors. The COVID-19 pandemic only partly affected the project's communication and dissemination activities. Many of the project activities were moved online, others were postponed, while others were conducted in hybrid means. The transition to online, however, very likely had the effect of increasing the number of people reached by the project and made PERSIST events accessible to much wider audiences. It successfully established contacts with others and took advantage of current opportunities to achieve impact and exploit its results.