

**Personalized ICT solution to reduce re-hospitalization rates in heart failure elderly patients suffering from comorbidities**

**WP1: Project Management and Dissemination**

**D1.3a: Report on communication & dissemination towards stakeholders and the public**

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## Abstract

This report is presenting the communication and dissemination activities implemented during the first 18 months of the PerHeart project. These activities are structured in: (1) direct stakeholder involvement during which medical professionals and heart failure (HF) patients were involved in focus groups and surveys; (2) scientific dissemination through peer-reviewed articles in conference proceedings; (3) other dissemination actions towards the general public, students, elderly, etc. Activities at point (1) are only summarized here and reported extensively as part of D2.1. Scientific dissemination includes four conference proceeding articles which were also presented on-site or online during the events.

A virtual presentation of the platform was made available to all stakeholders involved in focus groups and interviews. Focus groups were organized in Poland and Denmark in order to collect relevant feedback from medical personnel. In addition, elderly heart failure patients (65+) were involved through individual questionnaires. The focus groups with professional medical personnel and the answers of patients to specific questionnaires have provided several recommendations for the development and the implementation of the platform and pilots. These have been used for tuning the architecture and will be further used in Tasks 2.2 and 3.3.

Scientific dissemination has targeted mainly conference publications and presentations such as to increase the visibility of the project during the networking events organized as part of the conferences. Networking was also part of activities such as fair participation, presentations during events organized as part of COST and ERASMUS PLUS actions, etc.

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## ABBREVIATIONS

HF	Heart Failure
INTED	International Conference of Education, Research and Innovation
EHB	IEEE International Conference on e-Health and Bioengineering
PerHeart	Personalized ICT solution to reduce re-hospitalization rates in heart failure elderly patients suffering from comorbidities

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## 1 Executive summary

This report is presenting the communication and dissemination activities implemented during the first 18 months of the PerHeart project. These activities are structured in: (1) direct stakeholder involvement during which medical professionals and heart failure (HF) patients were involved in focus groups and surveys; (2) scientific dissemination through peer-reviewed articles in conference proceedings; (3) other dissemination actions towards the general public, students, elderly, etc. Activities at point (1) are only summarized here and reported extensively as part of D2.1. Scientific dissemination includes three conference proceeding articles which were also presented on-site or online during the events.

## 2 Direct stakeholder involvement

Focus groups were organized in Poland and Denmark in order to collect relevant feedback from medical personnel. Focus group can be defined as the technique of collecting data through the interaction between the members of a small group (optimum size 8-10 participants) of demographically similar people or participants. Their reactions to topics introduced by a facilitator are studied. The discussions can be guided or open. If the group members are representative of a larger population, their reactions may be expected to reflect the views of that larger population. This technique was chosen as the suitable method of collecting data regarding the PerHeart project, platform and future pilots, due to its flexibility, high validity; low costs and the reduced duration of the research, as multiple participants could be involved at the same time.

In addition, elderly heart failure patients (65+) were involved through individual questionnaires such as to avoid any risks due to the COVID-19 pandemics. These included standardized questions regarding demographic information, medical history, current health status, health-related issues, comorbidities, IT literacy, etc. A virtual presentation of the platform was also made available. The questionnaires were filled independently by the patients or via tele-interviews with a consortium member.

The input from both the professionals and the patients are presented in D2.1. The focus groups with professional medical personnel and the answers of patients to specific questionnaires have provided several recommendations for the development and the implementation of the platform and pilots. These have been used for tuning the architecture and will be further used in Tasks 2.2 and 3.3.

## 3 Scientific dissemination

This section is presenting the peer-reviewed publications which have resulted from the activities implemented during the PerHeart project and are acknowledging the project (see Table 1). All publications are available from their authors on demand in their pre-printed form ([info@citst.ro](mailto:info@citst.ro)).

The 9-th edition of the IEEE International Conference on e-Health and Bioengineering, EHB 2021, took place on 18-19 November 2021, ONLINE from Iasi-Romania. The conference motto was "Leveraging top technology for healthcare development" addressing sub-domains and topics of medical bioengineering and biomedical engineering. The conference was mainly dedicated to the e-health systems, medical bioengineering and biomedical engineering, but has also addressed related fields. The EHB 2021 Proceeding were indexed on IEEE Websit and in Web of Science Core Collection - Clarivate.

INTED2022, the 16th Annual International Technology, Education and Development Conference, s an annual international conference for lecturers, researchers, technologists and professionals from the educational sector. After 15 years, it has become a reference event that brings together more than 700

experts from 80 countries. The INTED2022 Proceedings comprise all accepted abstracts and papers. These are included in the IATED Digital Library and assigned a DOI number.

**Table 1. Peer-reviewed publications of the PerHeart consortium partners.**

Type of Publication*	Partner No	Publication
Conference proceedings	1	Irina Mocanu, Oana Cramariuc, Testing Federated Learning on Health and Wellbeing Data, in Proc. of IEEE International Conference on e-Health and Bioengineering, 18-19 November 2021, Iasi, Romania.
Conference proceedings	1, 5	K. Bierwirth, I. Mocanu, O. Cramariuc, "The PERHEART project, a learning experience for both end-users and developers", EDULEARN22 Proceedings, 7255-7262, 2022.
Conference proceedings	1	I. Mocanu, O. Cramariuc, A. Mocanu, "A practical and educational perspective on the implementation of ethical aspects in eHealth research projects", INTED2022 Proceedings, 8097-8104, 2022.

#### 4 Further Dissemination Activities

The activities in this section were directed towards the general public, students, industry, tertiary stakeholders. Networking was part of activities through fair participation, presentations during events organized as part of COST and ERASMUS PLUS actions, etc.

**Table 2. Dissemination activities within the PerHeart project.**

Type of dissemination activity*	Partner No	Description	Link	Target audience
Web-site	1-6	The website of the project was developed with input from all partners. Additionally, a website is also maintained on the website of the coordinator	<a href="http://www.perheart.eu">www.perheart.eu</a> , <a href="http://www.citst.ro/projects/perheart/">www.citst.ro/projects/perheart/</a>	General public, industry, professionals, scientific community
LinkedIn page	1-6	The LinkedIn page is maintained by the coordinator with contributions from all partners	<a href="https://www.linkedin.com/showcase/perheart/">www.linkedin.com/showcase/perheart/</a>	professionals, scientific community
Newsletter	1	ERA PerMed Newsletter	<a href="https://erapermed.isciii.es/wp-content/uploads/2020/02/NEWSLETTER-3-final.pdf">https://erapermed.isciii.es/wp-content/uploads/2020/02/NEWSLETTER-3-final.pdf</a>	General public, industry, professionals, scientific community
Flyer	1-6	A logo and project flyer were prepared for dissemination purposes	<b>PERHEART</b> see Figure 1.	General public, industry, professionals, scientific community



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BZN board	5	PerHeart has been advertised on an information board placed at the BZN premises		Scientific community
Presentation	1	How Assisted Living can Improve Quality of Life, Security for Healthy Ageing (The Hospital from Home), within BeHEALTH 2020: International Online Event in Healthcare (27-29 October 2020)	<a href="https://international-brokerage-event-in-healthcare.b2match.io/agenda">https://international-brokerage-event-in-healthcare.b2match.io/agenda</a>	Scientific community, Professionals
Presentation	1	Webinar of the Erasmus+ project ERMAT, 15.10.2020, virtual event as part of the Erasmus+ Days.	<a href="http://www.erasmus-ermat.eu/">http://www.erasmus-ermat.eu/</a>	Scientific community
Presentation	1	Conference organized by the Association of the Directors of Long-Term Care in Romania, 4-5, October 2020).	<a href="http://www.adivromania.ro">www.adivromania.ro</a>	Professional caregivers
Presentation	1	MC meeting Alicante, 6-7 September, 2021, pt actiunea Cost: "GoodBrother" - CA19121 Network on Privacy-Aware Audio- and Video-Based Applications for Active and Assisted Living"	<a href="https://goodbrother.eu/">https://goodbrother.eu/</a>	Scientific community, Professionals, Industry
Bachelor's thesis	1	User behaviour pattern recognition - Roxana Cireasa (July 2021)	<a href="http://www.upb.ro">www.upb.ro</a>	Scientific community
Presentation	1	CITST has presented the PerHeart solution within the FIT Europe Seminar "SEMINAR 3 - PRESERVING PRIVACY AND TRUST IN IoT" which was organized in Milan as part of the FitEurope ERASMUS+ project.	<a href="https://fit-europe.eu">https://fit-europe.eu</a>	Students and university staff
Presentation	1	At the elderly care facility of the Bucharest Municipality as part of a common event organized by CITST and ADIV	<a href="https://www.facebook.com/profile.php?id=100082057886350">https://www.facebook.com/profile.php?id=100082057886350</a>	Elderly, professionals
M.Sc. research project (year 1)	1	Andrea Oltean	Federated learning for health data security	Professionals
M.Sc. research project (year 1)	1	Andrea Cozuc	Federated learning for health data security	Professionals
Flyer distribution	1	Techweek in Bucharest, 18 June 2022	<a href="https://www.techweek.ro/">https://www.techweek.ro/</a>	Professionals, general public

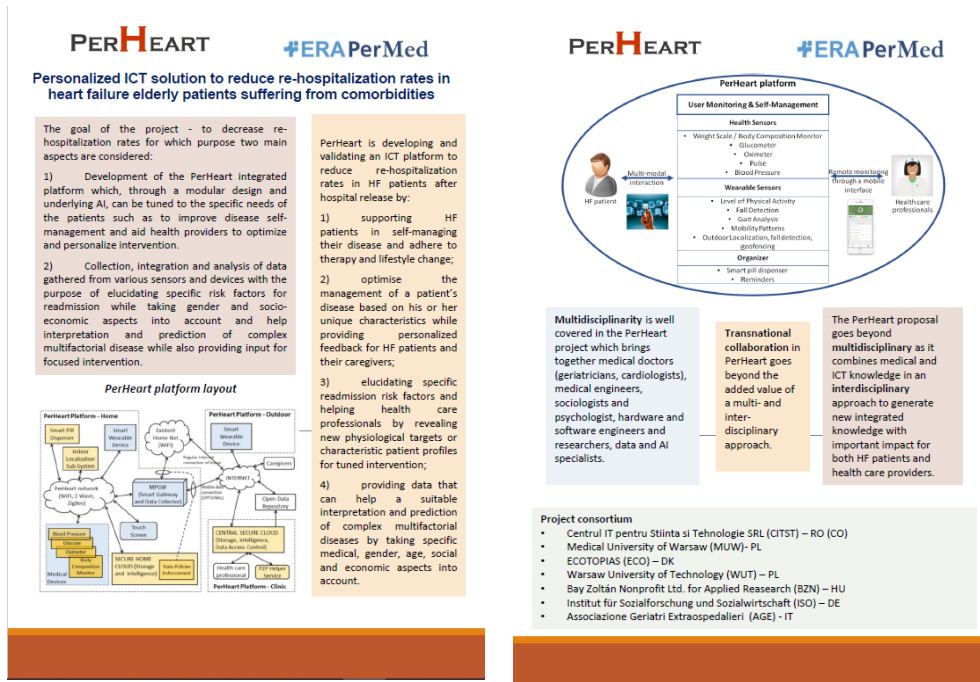


Figure 1. PerHeart Flyer.

## 5 Conclusions

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## 6 References

(1) I. Mocanu, O. Cramariuc, Testing Federated Learning on Health and Wellbeing Data, in Proc. of IEEE International Conference on e-Health and Bioengineering, 18-19 November 2021, Iasi, Romania.

(2) K. Bierwirth, I. Mocanu, O. Cramariuc, "The PERHEART project, a learning experience for both end-users and developers", EDULEARN22 Proceedings, 7255-7262, 2022.

(3) I. Mocanu, O. Cramariuc, A. Mocanu, "A practical and educational perspective on the implementation of ethical aspects in eHealth research projects", INTED2022 Proceedings, 8097-8104, 2022.

## 7 Document History

Version	Document version	Partner
1	Table of content	CITST
2	Scientific dissemination added	WUT
3	Direct stakeholder involvement	ISO
4	Other dissemination actions	CITST
5	Internal revision	BZN
8	Revision and submission	CITST