D5.3b

DISSEMINATION REPORT-2

WP5 – Management, Dissemination & Exploitation

T5.3 - Dissemination

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Glossary

Acronym	Meaning
SPAIC	Sociedade Portuguesa de Alergologia e Imunologia Clínica / *Portuguese Society of Allergology and Clinical Immunology*
CORD	Chronic obstructive respiratory disease
UC	Use Case
KPI	Key Performance Indicator
AAV	Automatic Advertising Value

EXECUTIVE SUMMARY

This document is deliverable D5.3b from Personal Health Empowerment (PHE), "Dissemination". This report updates the communication plan, including changes in the dissemination strategy (section 2), list the activities carried out so far and presents the activities done during 2019 (section 3).

We recall that the global aim of PHE dissemination and communication is to effectively transmit information of the activities and its outcomes to multiple stakeholders and audiences, in order to support and maximize the impact of PHE.

The specific aims of the dissemination and communication plan are the following:

- To promote through communication and dissemination the PHE results and technologies;
- To contribute to the widespread use and awareness raising of the developed technologies in order to increase PHE success.;
- To identify the main stakeholder types/categories with emphasis to identify and prioritize dissemination tools;
- To specify important exploitation and marketing activities which will take place in order to attract potential customers for the PHE technologies.

This previous deliverable previous deliverable D5.3a) DISSEMINATION REPORT-1. outlined the channels through which results and key messages will be communicated to the stakeholders and audiences that have been identified to benefit from them, such as employees, employers, CORD patients, healthcare providers, healthcare payers, among others. The current document updates and complete the previous one, regarding the events and actions done in 2019.

The execution of the plan is being measured through quantitative and qualitative measures for the sake of accountability and improvement of the project.

1 Introduction

The Personal Health Empowerment project aims to achieve significant cost reductions for preventive solutions to help the person adopt a healthy lifestyle and providing the person with tools to actively participate in the treatment when diseases do arise by empowering people to monitor and improve their health using personal data and digital coaching. As a result, these will be causing to reduce the number of patients and decrease the burden on care personnel.

These project innovations have great potential to have a large impact on healthcare provision in the future, providing both evidence and means to realise people-centric and preventive health care, and allow for cost-saving solutions with increased patient involvement. But, to have the expected impact, an effective dissemination strategy and communication plan involving all project partners was needed.

That strategy was defined in a previous deliverable D5.3a) DISSEMINATION REPORT-1. The current document updates and complete the previous one, regarding the events and actions done in 2019.

2 Updated Communication Plan

No relevant changes have been introduced in the defined dissemination strategy. No new material, nor types of activities were identified, in addition to the already described in the previous deliverable and presented in Table 1. Please notice that some of the communication activities will be developed with specific target groups of the project (Technological and Technical-scientific Communities, Potential Costumers and General Public, which include the decision makers).

The access level was reviewed as confidential, and thus were excluded from the dissemination plan, for the following deliverables

D4.2.- Description of reference situation and training data

D5.2.- Standardisation Reports

D3.3a.- Intelligent Coaching Engine-V1.

For that reason, monitoring effectiveness measures will be applied at the months (M) 18, 24, 30 and 36 of the project, as described in the **Erro! A origem da referência não foi encontrada.**

2.1 Updated dissemination Partners

Facilitating partners, which will collaborate in the dissemination of the ITEA results and products will be identified during all project, according to the opportunities. Candidates to this role include previously established collaborations of the consortium participants, other ongoing projects involving consortium participants and other ITEA projects teams. Up to the moment were identified 5 dissemination partners, listed below:

- **INSPIRERS team** - Part of the PHE researchers from Portuguese consortium are also lead or participate in projects INSPIRERS regarding adherence to medication in CORD, both in Portugal and Spain. INSPIRERS Team include almost 100 medical specialists related to CORD.
- **Project TagUBig** (Taming your Big Data) – This project is led by a PHE researcher aims to contribute to improving transparency, privacy and usability of applications.
- **Union of Turkish Bar Associations -** or Türkiye Barolar Birliği (TBB) is an organisation for Turkish lawyers, uniting over 60,000 lawyers in 78 Turkish bar associations.
- **Platform of technologies for active and independent Health and living (eVIA)** - Different news and press releases through this platform news and press releases generated by the project will be redistributed to increase their impact on an audience related to innovation in health.
- **Planetic** - Spanish technological platform for the adoption and dissemination of electronic, information and communication technologies. Different news and press releases will also be distributed through this platform whose audience is more related to communication technologies experts.

Material / Activity	Goal	Target groups		
		General public	Technological and Technical-scientific	Potential Costumers
[short name]	[purposes and characteristics]			
Project branding	Defining project branding (logo, colours, templates) in order to have a homogeneous project identity.	●	●	●
Project Web-page	Working as centralized information source, hosting the public information, such as partners, public deliverables and list of scientific outputs, with regular update.	●	●	●
Press releases	Informing stakeholders about key achievements and events.	●		●
Physical/digital promotional materials	Informing the general public of the basic information on the project or specific features aiming population subgroups	●		●
Social Media dissemination	Informing the general public of the basic information on the project or specific features aiming population subgroups		●	●
Information events in the community with specific subtargets	Participation in more general scope events in the community	●		●
Workshop organization	Informing stakeholders directly		●	●
Participation in events of technical / scientific dissemination	Promotion of the innovative contributions and results		●	●
Scientific papers	Technical / scientific dissemination of the innovative contributions and results		●	
PhD and master thesis	Technical / scientific dissemination of the innovative contributions and results, which constitute relevant part of the research work of the students which belong to the research team		●	
Project deliverables	Documents with access level defined as public which can be technical scientific dissemination channel		●	

Table 1 Activities and Materials for dissemination , with target groups

2.2 Updated proposed calendar and monitoring of the effectiveness of dissemination

The planned actions for 2020 as presented in the previous version of this document were updated regarding the current status of the project.

2.2.1 Actions planned for 2020

Any dissemination action planned for 2019 which was not accomplish will be completed in the last year of the project. Physical and digital promotional materials to publicize the PHE and its results will be developed in English, Portuguese, Spanish and Turkish, following the templates defined. These materials should be made available at web-page and further disseminated using Social Media. Four project deliverables, with access level defined as public are planned for this period:

D1.2b.- Final Market Analysis & Business Plan Specification

D5.3.-Dissemination Report-3

A press release will be produced at the end of the project.

The Use Case CORD Management, will organize the workshop and to disseminate actively the products by participating in MEDICA business world fair, and with a technical presentation of the European Respiratory Society congress and at the SPAIC meetings and contacting patients associations. Innovative results will be presented in at least two scientific meetings and two technical-scientific papers.

The Belgian Use Case plans to have at least two academic contributions in the form of scientific articles in 2020. One will describe the setup and results of several focus groups that have been conducted so far, which provide insight into the needs of the end-users regarding the design of the application. Another contribution will be a workshop paper for UX@Work.

3 Activities carried out up to now

After a first 12-month period of the project in which the priority was the organizational issues, 2019 was possible to accomplish most of the planed dissemination actions. The list of the activities carried out up to December 2019 are presented in presented in Table 3 List of dissemination and communication activities for the second semester 2019 and Table 3 List of dissemination and communication activities for the second semester 2019 .

| | | Use cases | | |
| | | Global project | Healthy Workplaces | CORD Management |
Date	Action			
July 2018	Master thesis #1			●
August 2018	Project Identity Logo	●		
October 2018	Deliverable Templates	●	●	●
November 2018	D1.2a.- Preliminary Market Analysis & Business Plan Specification Document	●	●	●
Several occasions during 2018	Meetings with Manpower		●	
January 2019	First PHE Facebook post	●		
February 2019	Poster presentation at the 6th ENBENG 2019 – IEEE EMBS Portugal Chapter			●
March 2019	Presence at the Portugal eHealth Summit 2019 with CINTESIS	●		
April 2019	Web-page fully functional	●	●	●
April 2019	Presence with CINTESIS at MOSTRA UP	●		
April 2019	Scientific paper published at 2019 IEEE 6th Portuguese Meeting on Bioengineering (ENBENG) Conference Procedings DOI: 10.1109/ENBENG.2019.8692452			●
June 2019	Presence at Clinical Village of the EAACI	●		
June 2019	Master thesis #2			●
June 2019	Presentation at the ICIMTH (International Conference on Informatics, Management, and Technology in Healthcare)			●

Date	Action		
June 2019	Scientific paper published at Studies in Health Technology and Informatics DOI: 10.3233/SHTI190002		●

Table 2 List of dissemination and communication activities for the first semester 2019

		Use cases		
Date	**Action**	**Global project**	**Healthy Workplaces**	**CORD Management**
July 2019	Presentation at the 18th International Conference on Informatics, Management and Technology in Healthcare			●
July 2019	Social Media posts on the PHE partners workshop: Arquiteture of the system	●	●	●
July	PhD Thesis #1			●
August 2019	Scientific paper published at Progress in Artificial Intelligence. EPIA 2019. Lecture Notes in Computer Science DOI: 10.1007/978-3-030-30244-3_5			●
September 2019	Presentation at the 19th EPIA Conference on Artificial Intelligence			●
September 2019	PhD Thesis #2			●
September 2019	MEDICON Special Session organization with two scientific presentations			●
September 2019	Two scientific papers published at MEDICON 2019 Conference Procedings DOI: 10.1007/978-3-030-31635-8_168 DOI: 10.1007/978-3-030-31635-8_170			●
December 2019	Scientific paper accepted at WorldCist'20 - 8th World Conference on Information Systems and Technologies			●
December 2019	Scientific paper accepted at Artificial Intelligence Review Journal			●
Several moments	Meetings with Manpower Occupational Health Department	●		

Table 3 List of dissemination and communication activities for the second semester 2019

3.1   Project deliverables with public access

Three deliverables with access level defined as public due in 2018 were not fully ready by the end of the year and were concluded and made available at the ITEA3 website in first trimester of 2019:

D3.1.- System Requirements Specification

D3.2.- User Profile definition

D5.3.-Dissemination Report-1

For two other deliverables the access level was reviewed as confidential, and thus were excluded from the dissemination plan.

D4.2.- Description of reference situation and training data

D5.2a.- Standardisation Report-V1

The deliverable D5.3.-Dissemination Report-2, this report, was prepared in the beginning of 2020.

3.2   Project webpage

The web-page of the project will be defined and prepared by ARD in collaboration with CINTESIS and it is available at http://projectphe.com/. Currently the web-page contains the descriptions of the project and consortium, allows the downloads of the public deliverables and connects with the official ITEA3 project page and also the Facebook profile of PHE (Figure 1).
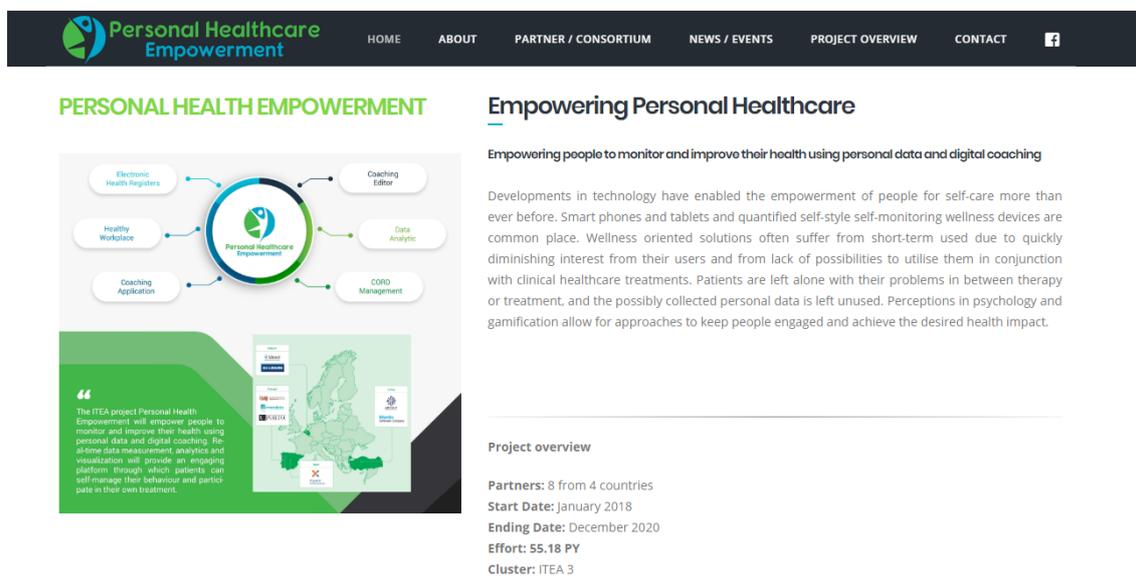

Figure 1 Project Web-page

3.3   Facebook Page and other social media mentions

A Facebook page https://www.facebook.com/projectPHE/ was set up by ISEP in January 2019. All partners wer ste as administrators to be able to publish their own activities. The Facebook page is findable by @projectPHE and was defined has Medical & Health category. During 2019

were posted 7 posts, including 14 photos of events with PHE participation. Currently the Page has 21 followers and posts reached over 300 persons.

The hashtag #PHE was used in 3 posts/sharing out of the Facebook project page.

3.4 Participation in events

Preliminary results of the CORD use case were presented as a poster at the IEEE EMBS Portugal Chapter conference

- Quality assessment and feedback of Smart Device Microphone Spirometry executed by children, poster at the 6th ENBENG 2019 – IEEE EMBS Portugal Chapter, 22-23 February, Lisboa(Portugal) by Rute Almeida (CINTESIS)

and as oral presentation at International Conference on Informatics, Management, and Technology in Healthcare

- Defining an Architecture for a Coaching Module to Support Self-Monitoring of Chronic Obstructive Respiratory Diseases. at ICIMTH., July, Athenes(Greece) by Goreti Marreiros (GECAD)

The MEDICON Special Session "Smartphone based, patient-centred technologies" was organized by researchers of CINTESIS and MEDIDA. Aditional results of the CORD use case were presented in that session as two different oral presentations:

- Automatic Quality Assessment of a Forced Expiratory Manoeuvre Acquired with the Tablet Microphone, oral presentation at 15th Mediterr. Conf. Med. Biol. Eng. Comput.(MEDICON), 26-28 September, Coimbra (Portugal) by Rute Almeida (CINTESIS)
- How secure is your mobile health?, oral presentation at 15th Mediterr. Conf. Med. Biol. Eng. Comput.(MEDICON), 26-28 September, Coimbra (Portugal) by Ana Ferreira (CINTESIS)

And also at the EPIA Conference on Artificial Intelligence

- A Conceptual Approach to Enhance the Well-Being of Elderly People D. Martinho, at EPIA Conference on Artificial Intelligence, September, Vila Real (Portugal) by Diogo Martinho (GECAD)

The project PHE is included in the institutional promotion by CINTESIS, as an integral part of its project portfolio (Figure 2). In this context, information about the project was included in the presentation of CINTESIS at the Portugal eHealth Summit 2019, which took place in Lisbon from 19 to 22 March 2019 and which in this edition had more than 15,000 participants, including the largest healthcare companies, startups and interested parties, public and private, in Portugal.
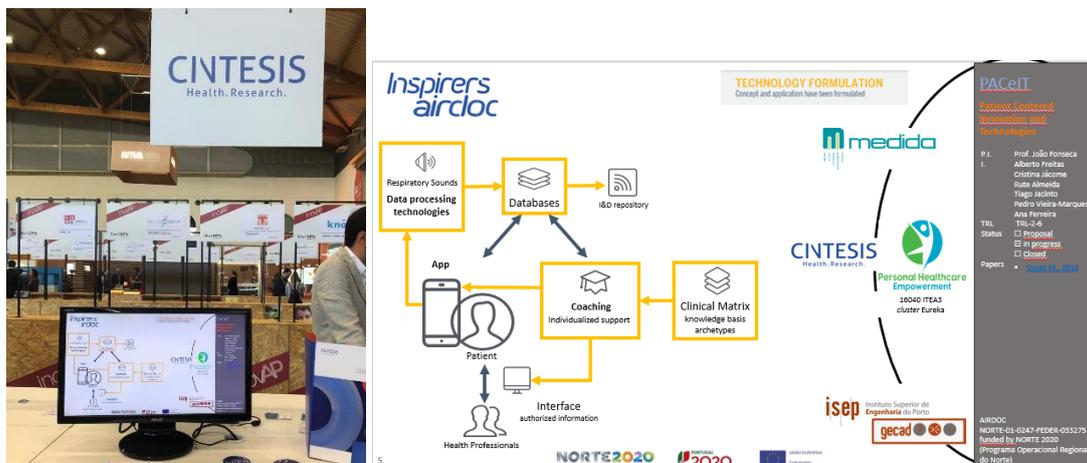
Figure 2- Portugal eHealth Summit 2019

It is also worth mentioning that some researchers of the project were present at the CINTESIS stand at the 17th Mostra of the University of Porto, which took place in April 2019, during the day dedicated to asthma and apps for respiratory disease. Information about the PHE project was made available and it was possible to try the first prototype for the acquisition of respiratory sound signals and parameters reported by the patient developed (Figure 3). Mostra UP is a four-day meeting between the university community of the University of Porto and all those who want to know what is being done at the largest teaching and research institution in northern Portugal, having received in the 2019 edition almost 20,000 visitors. Thus, this event also targeted the general public who are interested in health and mobile technologies, in particular mobile health and potential end users.
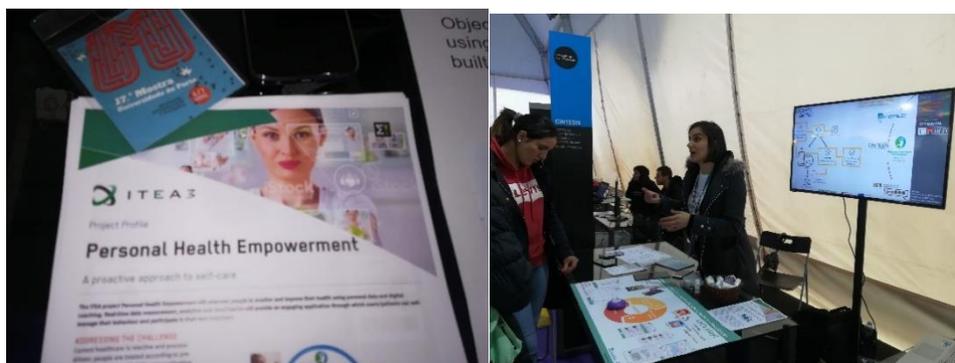

Figure 3- 17th Mostra of the University of Porto

Researchers of the project from CINTESIS were also involved in the organization of the "mHealth" and "Patient Reported Outcomes" stands of Clinical Village that took place on the 1st and 2nd of June 2019 in Lisbon as part of the congress of the European Academy of Allergy and Clinical Immunology - EAACI 2019. In these stands there was information about the AIRDOC project and it was possible to try the aforementioned prototype. EAACI 2019 had over 8,000 participants, including leading researchers and professionals worldwide (technical-scientific community and potential customers), with a strong presence in the pharmaceutical and medical device industry (technological community).

Figure 4- EAACI 2019

3.5 Scientific papers

Preliminary results of the CORD use case were published at five scientific papers:

- R. Almeida et al., (2019) Quality assessment and feedback of Smart Device Microphone Spirometry executed by children, IEEE 6th Portuguese Meeting on Bioengineering (ENBENG), pp. 1-4. https://doi.org/10.1109/ENBENG.2019.8692452;
- A. Vieira et al. (2019) Defining an Architecture for a Coaching Module to Support Self-Monitoring of Chronic Obstructive Respiratory Diseases. Stud Health Technol Inform 262 130-133. https://doi.org/10.3233/shti190034
- D. Martinho et al. (2019) A Conceptual Approach to Enhance the Well-Being of Elderly People.cProceedings of EPIA Conference on Artificial Intelligence (pp. 50-61). Springer, Cham. https://doi.org/10.1007/978-3-030-30244-3_5
- R. Almeida et al., (2019) Automatic Quality Assessment of a Forced Expiratory Manoeuvre Acquired with the Tablet Microphone, proceedings of the 5th Medit. Conf. Med. Biol. Eng. Comput. (MEDICON), https://doi.org/10.1007/978-3-030-31635-8_170.
- A. Ferreira et al. (2019) How secure is your mobile health? 15th Mediterr. Conf. Med. Biol. Eng. Comput.(MEDICON) https://doi.org/10.1007/978-3-030-31635-8_168.

Two other papers are already accepted for publication.

3.6 Communication in the framework of concluded PhD Thesis

As planned the definition and development of the clinical decision matrix to drive the coaching module and the clustering of the patient clinical profile and its interaction with the clinical decision matrix was integrated in the doctoral thesis at the PhD program in Clinical and Health

Services Research (CINTESIS) of Rita Silva Amaral and Ana Isabel Santos Sá Sousa and, concluded respectively at 10th July and 20th September 2019.

3.7 Communication in the framework of concluded Master Thesis

Master thesis in Informatics Enginnering "Desenvolvimento de um Sistema para Suporte Individualizado Inteligente a Pacientes com Doença Respiratória Obstrutiva Crónica", by Ana Vieira, june 2019, supervised by Goreti Marreiros and Diogo Martinho, GECAD.

3.8 Communication in the framework of concluded Master Thesis

Master thesis in Informatics Enginnering "Desenvolvimento de um Sistema para Suporte Individualizado Inteligente a Pacientes com Doença Respiratória Obstrutiva Crónica", by Ana Vieira, june 2019, supervised by Goreti Marreiros and Diogo Martinho, GECAD.

3.9 Meetings with Manpower

Internal Meetings within Manpower are occurred in several moments, in particular with the Occupational Department of Manpower managing to arouse their interest and involving them in the development of the project. These meetings allow that the added value provided by PHE to be understood inside the company.

4 Monitoring the effectiveness of dissemination

The monitoring effectiveness measures should be evaluated at the months (M) 18, 24, 30 and 36 of the project, as described in the **Erro! A origem da referência não foi encontrada.**, in which the already accomplished actions are marked in green.

Regarding the project branding all necessary templates were produces.

The project web page is currently fully functional.

A Press releases will be released during 2020 by the CORD use case one the integrated system became available for testing.

The first promotional physical materials, consisting in the official ITEA leaflet was produces and distributed in the several events in which the PHE project was present. Also some PowerPoint summary slides were prepared and used in the several dissemination events.

The decision of creating a Facebook page for the project allowed to fulfil the goal for social media mentions, with a total of 10 mentions by the end of 2019.

Dissemination in the general community was performed by the participation at the Mostra of University of Porto.

Due to the constrains created by the delayed inclusion of the Portuguese parteners in the consortium, the Workshop planned for 2019 was delayed to 2020.

During 2019 the PHE project was been present at 9 events, achieved 5 scientific publications and 3 thesis presented (2 PhD, 1 master).

Regarding the public deliverables, with this document the project achieved 5 out of 5 deliverables concluded.

● Material / Activity	Effectiveness measures	Evaluation times			
		M18	M24	M30	M36
Project branding	Availability	logo, colours and template for deliverables available	All templates available		
Project Web-page	Availability		Fully functional		
Press releases	Number of news by circulation / audience level. Automatic Advertising Value (AAV)		Regarding prototype of the availability of the integrated system		Final of the project
Physical/digital promotional materials	Availability		First promotional materials	More than three promotional materials	More than six promotional materials
Social Media dissemination	Number of posts and tags. Automatic Advertising Value	First mention at social media	More than five mentions at social media		More than 20 mentions at social media
Information events of the community	Number of events.		First participation		More than three participations
Workshop organization			One workshop organized		
Participation in events	Number of events.	First participation	More than 10 participations		More than 20 participations
Scientific papers	Number of documents.		First publication achieved		More than 4 publications
PhD and master thesis	Number of documents.	First thesis concluded	3 thesis concluded		
Project deliverables with access level defined as public	Number of documents.	50% made available		75% made available	100% made available

Table 4 Effectiveness measures