
D9.2

Initial Dissemination Plan

Dementia Ambient Care: Multi-Sensing Monitoring for Intelligent Remote Management and Decision Support

Dem@Care - FP7-288199

Deliverable Information

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Abstract (for dissemination)		This deliverable presents an initial planning for the dissemination activities that will be performed during the course of the Dem@Care project. Dem@Care as a multi-disciplinary, multi-partner research endeavour aspires to contribute to the self-independence of people with dementia. The social, economical and research dimensions of Dem@Care make dissemination activities of paramount importance. The deliverable serves as an initial guideline and planning document to achieve dissemination objectives set by the Dem@Care project.

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Executive Summary

This deliverable presents an initial planning for the dissemination activities that will be performed during the course of the Dem@Care project. Dem@Care as a multi-disciplinary, multi-partner research endeavour aspires to contribute to the independence of people with dementia. The social, economical and research dimensions of the Dem@Care project make dissemination activities of paramount importance. Dissemination objectives set by Dem@Care can only be achieved with a clearly stated planning that is built upon on a common strategy. The deliverable serves as an initial guideline and planning document to this end.

The deliverable states dissemination objectives in view of the overall project goal. It also describes the phased and targeted dissemination strategy unanimously adopted by the Dem@Care partners. Individual partner-level plans are explained within the document. An overall planning of all intended dissemination activities is provided in a separate document attached to this deliverable.

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1 Introduction

The Dem@Care project as a multi-disciplinary, multi-partner research endeavour aspires to contribute to the independence and autonomy of people with dementia. The social, economical and research dimensions of the Dem@Care project make dissemination activities of paramount importance for several reasons.

First and foremost, Dem@Care dissemination activities should address as many people as possible, at different levels (citizens, social stakeholders, local decision makers), to make them more aware of the complexities of the healthy ageing problems and of existing technologies, as well as of national and local strategies for tackling them. This can and should be achieved by strengthening diffusion and circulation of information among relevant stakeholders and the public at large.

Second, as on one hand the Dem@Care approach to healthy aging will strongly depend on extensive data collection and analysis, and on the other hand, its success will be largely relying on the acceptance of such a system by its potential users be they patients and their relatives, healthcare professionals or organizations, the project should establish persistent connections for collaborating with relevant people and organizations to be engaged with the goals set by the Dem@Care project.

Third, the Dem@Care system components, which will result from cutting edge research, should be promoted and advertised to key players in the healthcare industry, as well as to healthcare providers, who have an interest in remote management and care.

Finally, as a research project raising considerable expectations, Dem@Care will deliver important scientific and technological outputs. These should be shared with academia and research organizations through academic dissemination channels so that more and more ICT and medical researchers become mobilized towards the research goals in remote healthcare and ICT-enabled healthy aging. In that sense, Dem@Care will also strive to make significant contributions in this emerging domain.

The document is organized as follows. In the next section, we describe the Dem@Care dissemination strategy and the pillars it is based upon. Dissemination objectives in the light of the overall project goal are clearly stated (Section 2.1), target audiences are identified (Section 2.2) and the importance of dissemination timing is emphasized (Section 2.3). We also present various dissemination channels that will be extensively used in Dem@Care (Section 2.4). Overall planning as well as executional issues are discussed in Section 2.5. Section 3 specifies initial planning for intended dissemination activities at individual partner levels. These activities are tabulated in an accompanying document attached to this deliverable. Finally, Section 4 provides a concluding summary of the deliverable.

2 Dem@Care Dissemination Strategy and Planning

The Dem@Care dissemination strategy addresses the following key aspects:

- Project goals and dissemination objectives,
- Target audiences,
- Phased dissemination,
- Dissemination media and methods,
- Planning, execution, and evaluation.

These are explained in the following sections.

2.1 Project Goal and Dissemination Objectives

The overall goal of the Dem@Care project is to provide an integrated remote care and management solution for people with dementia by bringing together leading experts in dementia, video and audio analysis, physiological sensor data monitoring, life-logging, lifestyle analysis, data mining and fusion, knowledge modelling and semantic inference. This goal will be supported by strategically designed dissemination activities with the following specific objectives:

- To *raise a general awareness within the society* on the social and economical aspects of dementia,
- To *inform people affected by dementia* (either as themselves or as relatives of other people with dementia) *and the general public* (individuals, organizations, governmental bodies) that, in the context of Dem@Care, leading medical and ICT experts are actively working on non-classical paradigms and approaches that will ease the unfortunate consequences of dementia,
- To *inform other medical and ICT researchers* from academia and the industry on the scientific and technological achievements obtained throughout the project,
- To *engage people and organizations* with the research results obtained throughout the project in order to get input and feedback that will be valuable for the later phases of the project,
- To *promote the project among decision makers and enterprises in the medical domain as well as governmental bodies* by periodically showing off useful, tangible, and promising research and technology outcomes of the project.

2.2 Target Audiences

People must be reached by the new knowledge or results produced by the project so that they can benefit from them. To this end, in Dem@Care dissemination activities, we aim at identifying different individuals, groups, and organisations and their specific interest in the potential outcomes of the project. We also need to inform and engage stakeholders. A stakeholder can be defined as *any group or individual who can affect, or be affected by the achievement of the research projects - or can influence these results*. Dem@Care knowledge

and results will also be exchanged with other European projects, with the scientific community and with standardisation bodies.

Specification of the target audiences is also important in that the expectations and interests can vary from group to group. For instance, while a certain technical result of Dem@Care may be significant for a group of researchers, it might not raise sufficient interest among the actual users of the prospective Dem@Care system unless the implications of this technical result are properly communicated. Naturally, the right message should be given to the right audience. In this respect, the Dem@Care dissemination strategy is committed to systematically and continuously identify different individuals, groups and organisations, and their specific expectations, as well as to keep their interests alive throughout the project.

In the light of these aspects, Dem@Care target audiences are categorized in terms of the following groups:

- General public,
- Patients, their families and relatives,
- Medical professionals,
- Scientific community (medical / ICT / psychologists / neuroscientists)
- Healthcare organizations (non-commercial / commercial)
- Governmental organizations.

2.3 Phased Dissemination

For a four-year project as Dem@Care, it is necessary to decide when a particular dissemination activity will be most relevant, as messages will vary during the timeframe of the project. For example, while at the start it is better to focus on raising awareness concerning the project, at the end, promotion activities will naturally gain more importance. We also keep in mind that usually a message should hit the receivers several times (the average is at least three) until an action is initiated. Therefore the messages should be repeated several times, potentially through various channels and tools.

The Dem@Care dissemination strategy sets objectives that change over time in synchrony with project milestones. This dissemination approach is in line with the three-stage research and development approach of the Dem@Care project, which will evolve and progress in terms of three system prototypes. Accordingly, the Dem@Care dissemination plan has been organized into three phases where major dissemination purposes will be as follows:

- Until 1st prototype (M20): Awareness-raising, partnering and informing activities,
- 1st prototype (M20) – 2nd prototype (M34): Informing and engagement activities,
- 2nd prototype (M34) – 3rd prototype (M48): Engagement and promotion activities.

2.4 Dissemination Media and Methods

A wide variety of dissemination methods will be leveraged during Dem@Care. Appropriate knowledge and skills are necessary to select the right one to communicate the message to the

target audience and achieve the purpose of the dissemination strategy. The means of dissemination that will be used throughout the project are explained in the sequel.

2.4.1 Web Presence and Newsletters

The Internet is admittedly becoming one of the most effective methods to render a public image for individual and organizational entities not only over websites but also via social networks. In Dem@Care dissemination, we will extensively use a web-based approach.

The Dem@Care website has been designed and implemented (<http://www.demcare.eu/>); it will be maintained and updated regularly during the project time life and at least 3 years after the end of the project, making information related to the Dem@Care project available to a wide audience. It is intended to provide an overview of the project concept, vision and goals, to introduce the Dem@Care consortium, and serve as a gateway for discussing Dem@Care related issues. Expected outcomes deriving from the project work will also presented while public documents will be available for downloading. Detailed statistics about the visitors to the website will be generated by the use of Google Analytics.

The web site has been basically structured into five areas:

- **Home:** a brief description of the project and latest news from the project and eHealth news via RSS.
- **News:** news of interest and Twitter posts from the project.
- **Project:** summary of the vision, objectives and challenges.
- **Partners:** consortium partners are presented and their respective roles in the project are described.
- **Results:** where the public results of the project will be presented here. From this page, users can download the project ID Card (project brief) for Dem@Care (Appendix A.4).
- **User Group:** to inform and motivate users related to Dem@Care and to provide input and create synergies with Dem@Care, this page collects details for interested external stakeholders of Dem@Care. This list will be used for invitations to events where Dem@Care participates and to promote online channels for communication with the project, like Twitter and Facebook.
- **Contact:** the contact details of the project and it's Coordinator.



Figure 1: Dem@Care Website.

In addition, each partner will maintain a web page for Dem@Care in its own language. Regarding social network presence, Dem@Care has active Facebook and Twitter accounts.

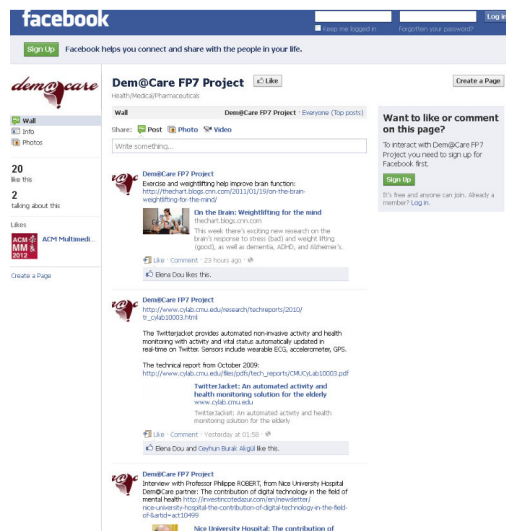


Figure 2a: Dem@Care Facebook page.



Figure 2b: Dem@Care Twitter page.

The complete listing of web activities of the Dem@Care is provided in the Appendix A.2. Newsletters constitute another web-based mean for the timely communication of project progress especially for interested professional audiences. As such, Dem@Care will provide input for the EU FP7 eHealth Newsletter at important project milestones. Furthermore, certain

project partners plan to regularly contribute also to other related newsletters as stated in Section 3.

2.4.2 Press Releases and Media Interviews

Press releases and media interviews are effective methods especially for raising awareness among the general public. Opportunities for public media-related communications are seriously considered in the Dem@Care dissemination strategy.



INNOVATION 13/02/2012

Nice University Hospital: The contribution of digital technology in the field of mental health

Through the CobTek team, the Memory Resource and Research Centre (CMRR), is combining fundamental and clinical research focusing on new technologies

Interview with Professor Philippe ROBERT, Professor of Psychiatry, Director of the University Host Institution, CobTek and coordinator of the Nice University Hospital Memory Resource and Research Centre (CMRR).

1) Professor Robert, can you tell us about your career and the activity of the CMRR?

The Memory Resource and Research Centre (CMRR) at Nice University Hospital is one of 27 CMRRs in France. Like every CMRR, it has several purposes, including treatment, education, coordination of networks and research as part of the diagnosis, monitoring and care of people with Alzheimer's or another related disease. The Nice University Hospital CMRR is recognised for its expertise in the field of behavioural issues and drug-free treatments as well as in the development of databases and computing. This has led, as part of the 2008-2012 National Alzheimer Plan to its coordination of Measure 34 intended to develop a computerised record system in France, shared by all Memory Centres.

2) What is CoBTek? What are the objectives of this university team?

CobTek (Cognition Behaviour Technology) is a University Host Institution which aims to develop new information and communication technologies in the field of healthcare and particularly the areas of mental health and independence. Research focuses in particular on Alzheimer's and related diseases, but also on the prevention of dependence and loss of autonomy, as much in the elderly as adults and even children. This team has been developed by the CMRR and INRIA's STARS team managed by François BREMOND. It could be said that the CobTek team is the merger of fundamental and clinical research aspects focusing on new technologies. This association is a remarkable and essential first for our region.

3) What can digital technology contribute to the field of mental health?

Very simply, it can help in 2 key areas. Firstly, that of assessing behaviours, independence and cognition such as memory or language. However, it is also of major interest in improving care, education and stimulation.

4) Can you tell us about a few of CoBTek's projects?

We have two European FP7 projects, one called **DEM@CARE** which, with international partners, is trying to develop instruments that can be used to assess the patient equally well within a care facility or at home. The second European project is called **VERVE** and aims to

Figure 3: Interview with Dem@Care researcher Dr. Philippe Robert (CHUN) to Côte d'Azur Business Net.

NEWS ARTICLE**Dem@Care: development of an integrated solution for the remote monitoring, diagnosis and support of people with dementia**

(1 March 2012) The great increase in incidence of dementia, in parallel with the constantly growing average age of the population, are rendering dementia a central problem in modern societies. The consequences of the disease on the quality of life of the people with dementia and their environment are particularly severe, while its socio-economic extensions incur significant burden on the society, health-care systems and the economy. Research efforts in new fields are thus becoming necessary. The four year European research program project **Dem@Care**, aims to make a substantial contribution in this direction, by combining the experience and new research results of 11 partners.

Contact: ehealth@ec.europa.eu

See also: [other EC eHealth funded projects](#)

Figure 4: Press release appeared on EC eHealth Newsletter (Mar 1, 2012)

Accordingly, each partner country will organize press conferences and seek participation in media interviews whenever possible. Specific plans are stated in Section 3. Already accomplished public media appearances are provided in Appendix A.3.

2.4.3 Exhibitions and Demonstrations

Dem@Care will present and demonstrate project prototypes and results in professional and public healthcare ICT exhibitions. We consider this type of activity as one of the most important means to advertise the project among healthcare professionals as well as to for better understanding the acceptability of Dem@Care-style remote healthcare solutions. Planned exhibitions and events are described in Section 3.

2.4.4 Dissemination within EU Commission

The Dem@Care Consortium will closely cooperate with the EU Commission to disseminate information through EU supported R&D initiatives: ICT related events, scientific and political events of the EC, international conferences, workshops and symposia. This will be useful for increasing awareness about the project within the EU and identifying and also for promptly seizing possibilities for cooperation with other EU-funded projects. In Table 1 key conferences organized by European Commission Targeted by the Dem@Care Project are listed.

Table 1: Conferences organized by the European Commission targeted by the project.

eHealth Conference in Copenhagen (May 2012)
E-challenges (October 2013)
ICT 2014 event(November 2014)

2.4.5 Academic Dissemination

Dem@Care being a research project involving an significant number of academics gives strong importance to academic dissemination in terms of publications in top conferences and journals, special sessions organization, special issue editorship and PhD dissertations. To this end, we have identified major ICT and healthcare conferences and journals – these are topically listed in Table 2 (conferences) and Table 3 (journals). Each academic and research partner plans to publish one to two conference papers on a yearly average basis. Journal papers will come after the second year of the project, as important research outcomes will get

more and more mature. Several academic partners target multiple PhD dissertations at the end of the project. Specific planning per partner is provided in the next section.

Table 2: Scientific Conferences Targeted by the project according to Topics

Computer Vision, Image Processing, Pattern Recognition, Multimedia
IEEE International Conference on Image Processing (ICIP)
European Conference on Computer Vision (ECCV)
IEEE International Conference on Pattern Recognition (ICPR)
IEEE International Conference on Computer Vision (ICCV)
IEEE Computer Vision and Pattern Recognition (CVPR)
ACM Multimedia
ACM International Conference on Multimedia Retrieval (ICMR)
International Conference on Computer Vision Systems (ICVS)
International Workshop on Content-Based Multimedia Indexing (CBMI)
Speech Processing
Annual Conference of the International Speech Communication Association (Interspeech)
IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)
Artificial Intelligence and Reasoning, Knowledge Representation and Management
AAAI Conference on Artificial Intelligence (AAAI)
European Conference on Artificial Intelligence (ECAI)
International Joint Conference on Artificial Intelligence (IJCAI)
European Conference on Logics in Artificial Intelligence (JELIA)
International Conference on the Principles of Knowledge Representation and Reasoning (KR)
European Conferences on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU)
The International Symposium on Rules (RuleML)
International Conference on Knowledge Engineering and Knowledge Management (EKAW)
International Conference on Semantic Computing (ICSC)
International Semantic Web Conference (ISWC)
Extended Semantic Web Conference (ESWC)
Distributed Learning Conference (DL)
OWL: Experiences and Directions Workshops (OWLED)
International Conference on Information and Knowledge Management (CIKM)

IEEE Conference on Decision and Control
International Conference on Information Fusion
Information and Communication Technologies in Healthcare and Medicine
International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth)
International Conference on E-Health Networking, Application and Services (Healthcom)
International Workshop on Knowledge Representation for Health Care (KR4HC)
International Conference on Bioinformatics and Biomedical Engineering (ICCBIE)
International Conference on Health Informatics
International Conference of the IEEE Engineering in Medicine and Biology Society
International Workshop on Recent Advances in Medical Informatics
Dementia and Alzheimer's Disease
Clinical Trials on Alzheimer's Disease (CTAD)
International Conference on Alzheimer's Disease (ADI)
International Psychogeriatric Association Conference (IPA)
Alzheimer's Association International Conference

Table 3: Scientific Journals Targeted by the Dem@Care project according to Topics

Computer Vision, Image Processing, Pattern Recognition, Multimedia
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
IEEE Transactions on Image Processing (TIP)
IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
Multimedia
Pattern Recognition
International Journal on Multimedia Information Retrieval
Artificial Intelligence and Reasoning, Knowledge Representation and Management
IEEE Transaction on Knowledge and Data Engineering (TKDE)
Data and Knowledge Engineering (DKE)
Journal of Web Semantics
Semantic Web Journal
International Journal of Approximate Reasoning
Knowledge-Based Systems
Journal of Advances in Information Fusion

Information and Communication Technologies in Healthcare and Medicine
International Journal of Medical Informatics
Artificial Intelligence in Medicine
Gerontechnology
Computers in Biology and Medicine
Dementia and Alzheimer's Disease
Alzheimer's & Dementia: The Journal of the Alzheimer's Association
Dementia and Geriatric Cognitive Disorders
Gerontology
The Journal of Quality Research in Dementia
International Geriatrics
Neurodegenerative Diseases

2.4.6 Other

Other dissemination means such as personal communications, leaflets and various phased announcements are in the agenda of each partner and will be persistently employed as part of dissemination activities.

2.5 Planning and Execution

Thorough planning at the early phase of the project will ensure the implementation of the Dem@Care dissemination strategy. The first step has been collection from all partners dissemination activity sheets for each individually planned activity for the entire course of the project. The activity sheet template has been constructed in view of the above strategy – the template is provided in Appendix A.1. Specifically, each dissemination item has been categorized in terms of its purpose (Sec. 2.1), its target audience (Sec. 2.2), its prospective timing in line with the stated strategy (Sec. 2.3), and its method (Sec. 2.4)

This approach of defining plans as upfront as possible has guided the partners to strategically think on their individual dissemination activities as well as on planning their dissemination purposes and efforts in conjunction with the overall dissemination strategy. After this collection of per-partner plans, dissemination activities have been merged into tables, one for each partner, which will be maintained during the course of the project in order to ensure timely execution, monitoring and evaluation of the stated plans. These tables, provided as an attachment to this document, constitute an early specification for the overall Dem@Care dissemination plan, which will be duly updated as necessary during the project. Major dissemination activities and target statistics extracted from these tables are presented in Table 4, which puts forward the variety of dissemination activities targeted by the Dem@Care project. It can be noticed that Dem@Care partners collectively give particular importance to academic dissemination. In aggregate, 70 conference submissions, 28 journal submissions, and 9-10 PhD dissertations are expected during the course of the project. As part of collective dissemination activities, we also foresee entire Dem@Care project exhibitions in 2014 or

2015 at major events such as the EU ICT Conference and Arctic Light E-health Conference (organized by Assembly of European Regions).

Table 4: Highlights of Planned Dissemination Activities

Partner	Activity Description	Remarks
CERTH	Web Presence: Project Website, Social Network Accounts	Continuous
CERTH	Conference Submission*	1-2 per year on (A) 1 per year on (B) 1-2 per year on (C) Expected total = 16
CERTH	Journal Submission*	1-2 per year on (A) 3 per two years on (B) or (C) Expected total = 12
CERTH	Organization of special session/special issue	2 during the project
CERTH	PhD Dissertation	2 during the project
CHUN	Conference Submission*	2 per year on (C) Expected total = 8
DCU	Contribution to CLARITY Newsletter (http://www.clarity-centre.org/)	Regular during the project
DCU	CLARITY Open Day Sessions	Regular during the project
DCU	Conference Submission*	Expected total = 14
DCU	Journal Submission*	Expected total = 4
DCU	PhD Dissertation	1 in Computing/Engineering, 1 in Ethics during the projects
IBM	Conference Submission*	1 per year on (D) Expected total = 4
INRIA	Conference Submission*	1 per year on (A) or (C) Expected total = 4
INRIA	Journal Submission*	1 per two years on (A) or (C) Expected total = 2
PENB	Dedicated forum to be organized for scientists and clinicians in the Dementia domain in the Netherlands (possibly in combination with similar Philips events in the Healthcare domain): “Dementia and Lifestyle Management” - tentative title	2014/H2
PENB	Conference Submission	1 in 2014, 1 in 2015 Expected total = 2
PENB	Journal Submission	2 during the project Expected total = 2
UB1	UB1 Webpage for Dem@Care	Continuous
UB1	UB1 Newsletter for Dem@Care	Regular after milestones
UB1	Information for the France Alzheimer Association about project advances	Regular after milestones
UB1	Conference Submission*	2 per year on (A)

		1 per year on (C) Expected total = 12
UB1	Journal Submission	3 in 2014 and 2015 Expected total = 3
UB1	PhD Dissertation	2 in 2015
VIV	VIV Webpage for Dem@Care	Continuous
VIV	Project presentation and participation in exhibitions and networking events	1-2 per year
CS	Project presentation in EADS Open Days	1-2 during the project
CS	Contribution to EADS newsletter	1-4 during the project (after milestones)
CS	Conference Submission	Expected total = 5
CS	Journal Submission	Expected total = 2
CS	PhD Dissertations	1 or 2 during the project
LTU	LTU Webpage for Dem@Care	Continuous
LTU	Partnering activity	1 per year
LTU	Project presentation and participation in exhibitions and networking events	1-2 per year
LTU	Researcher Exchange	2 during the project
LTU	PhD Dissertation	2 during the project
LTU	Conference Submission	5 during the project
LTU	Journal Submission	3 during the project
LTU	PhD Dissertations	2 during the project
*Topical categories: (A) computer vision, pattern recognition, multimedia; (B) artificial intelligence, knowledge representation and reasoning; (C) ICT in medicine and healthcare; (D) speech processing		

3 Partner Dissemination Plans

3.1 CERTH

In the framework of Dem@Care project the dissemination plans of CERTH include publishing results in well known and widely read international scientific journals, and international scientific conferences in the multimedia and knowledge domains. CERTH will present scientific results in workshops, seminars and talks for specialized audiences. In collaboration with other partners, CERTH will organize exhibition stands, workshops, and demonstration forums such that the technologies are shown to the chosen audiences.

CERTH will present Dem@Care to the Greek Society for Alzheimer disease and Relative Disorders and will investigate the possibility to establish cooperation with the foundation.

A press release related to Dem@Care was published in nation-wide Greek newspaper Kathimerini and in northern Greece largest newspaper Agelioforos on the 3rd and 4th of November 2011 respectively (see Appendix A.2)

In addition to the official project website (www.demcare.eu), CERTH maintains two Dem@Care related webpages under the ITI main website and ITI-Multimedia group website (see Appendix A.3). CERTH initiatives have also enabled presence under the webpage of the Greek Deputy Minister of Health. Dem@Care Facebook and Twitter accounts are activated and maintained by CERTH.

3.2 UB1

UB1 will disseminate ICT research and development results through international peer-reviewed conferences and journals in the domains of multimedia indexing, computer vision, pervasive computing and signal processing. Dissemination will also take place through national networks, such as CNRS GdR ISIS for signal and image processing algorithms, and CNRS-INSERM GdR STIC-Santé for ICT-Health applications, through the participation in targeted meetings.

Two PhD theses are planned in the context of the project, which will yield the redaction of scholar manuscripts pertaining to the work in the Dem@Care framework, and to the oral defense in front of an external jury of specialists.

Application results will be communicated to Alzheimer's associations in coordination with CHU Bordeaux and CMRR Bordeaux, as is currently the case for the IMMED project. This will be done directly, for instance with the France Alzheimer Association, or through communications at conferences such as Alzheimer's Association International Conference. The objective of the project will also be communicated to public through talks and demos.

Leaflets and newsletters in French language will be communicated through the institution to raise awareness and inform about the project.

3.3 Cassidian

For Dem@Care dissemination, Cassidian intends to take part in conferences and workshops to present Dem@Care architecture and innovations to scientific community. Thus, papers will

be published in the fields of architecture, data fusion and media mining. These events should be planned throughout the project to communicate both on the conceptual aspects and the technical ones. So the first interventions planned (mainly in 2012) would present the innovations about the architecture of Dem@Care and the last ones (2014 – 2015) would present technical novelty and implemented algorithms.

Furthermore, there will one and maybe two PhD students in Cassidian supported by Dem@Care in the fields of data fusion and media mining. Their work and publications will bring a significant contribution for the research work in Dem@Care.

Activities proposed below are assumptions about conferences and workshops, which could be attended, regarding the advancement of the research. Of course the participation to a conference is also dependent on the acceptance of the submitted paper.

Cassidian also plans to use other media to inform a larger community of people. News, ideas and general information will be published in specialized websites and forums such as <http://www.healthinformaticsforum.com>. Cassidian plans to take part in the online discussions, demonstrations and workshops organized around Dem@Care, as well as to publish Dem@Care-related articles in internal Cassidian newsletters and to inform people by making presentations/demonstrations at Cassidian open days.

3.4 INRIA

Research into cognitive vision is a core component of activity in Stars team at INRIA, which it is nationally and internationally known. It is expected that project results will contribute to these research activities, for example the data sets and algorithm development will be valuable. In addition, it is expected that expertise gained on this project, by the people involved, will be valuable input to further national and European level projects. Furthermore, in the field of cognitive vision, the team has in the past successfully initiated a company to exploit the relevant Intellectual Property. The team is open to the possibility of being involved in this kind of economic activities, to disseminate the Dem@Care project results.

From the academic point of view, INRIA will publish several articles to the main cognitive vision and video processing conferences (see Appendix).

INRIA will also use Dem@Care results in talks during press releases and as material in master courses at Nice-Sophia Antipolis University.

3.5 LTU

LTU will follow the phased dissemination agenda of Dem@Care.

In the first awareness, partnering and information phase, LTU will make clinical, professional and research communities in Sweden aware of the projects existence and find collaboration partners in the international scientific community. Specific activities are:

- Bilateral discussions with the Norrbotten regional health council about engagement of clinicians and further dementia researchers.
- Bilateral contacts with the Sweden national dementia associations.
- Public Dem@Care web page in Swedish

- Researcher exchange with University of Ulster, Northern Ireland, focusing on affective computing for WP4.
- Press release in Swedish about the project, the collaboration in Sweden with LTU and the Norrbotten regional health council, connections with other Swedish research and innovations activities in using ICT for dementia care.
- Bilateral discussions with dementia and technology researchers within the Lifelong Learning Programme project STAR – <http://www.startraining.eu> – as well as with external stakeholders of this project from several European countries (May 2012), Stafford, UK.
- Participation in the 2nd Arctic Light E-health Conference in Luleå, Sweden (19-20th June) - <http://www.nll.se/alec> involving the leadership of the E-health working group within Assembly of European Regions. The aim is to exhibit a poster about Dem@Care and to disseminate leaflets.
- Researcher exchange with University of Western Sydney, Australia, focusing on applying life-logging techniques for the Patient Closed Loop (T4.2).

In the second engagement phase, LTU will recruit and make active clinical, professional and user organisations in dementia care in Sweden. Specific activities are:

- Presentation of Dem@Care at the Swedish National Conference on Biomedical Engineering (October 2012), Lund, Sweden.
- A seminar or workshop (supported by the first prototype) at the main Sweden health conference Vitalis (April 2013), in Gothenburg, Sweden. This is the key Sweden conference for clinicians, dementia practitioners and politicians. This will increase Swedish visibility and help committing stakeholders for the first pilot in Luleå.
- Workshop with Smart Home researchers at ICOST 2013, supported by Dem@Care scientific papers to be submitted to the conference and exhibiting the first prototype.

In the last promotion phase, LTU will promote positive functionality and experiences from the first and second prototypes, for early use and further piloting in Sweden. Later, LTU will spread information about the positive outcomes from piloting with the second prototype, with the purpose of recruiting partners for the final pilot and starting international commercialisation processes with project and external partners. Specific activities are:

- Exhibiting the first prototype visual enhancements, at the E-challenges conference (October 2013).
- Exhibiting the first prototype visual enhancements, at the Sweden health conference Vitalis (April 2014), in Gothenburg, Sweden.
- Exhibiting the third prototype at regional/international InternetBay Partnering Event (February 2015) in Luleå, Sweden, for gaining interest from potential partners in Scandinavia for later commercialisation of Dem@Care results.
- Exhibiting the third prototype at the Sweden health conference Vitalis (April 2015), in Gothenburg, Sweden.

Two PhD theses are planned in the context of the project, within Health Sciences and within using ICT for Life Logging.

3.6 DCU

Three phases of dissemination are envisaged for this project. The first phase will concentrate on general publicization of the project and its partners. Disseminated information will describe the project and its aims and objectives. In this phase, DCU will refer to previous technologies and knowledge and explain how these will be leveraged to form part of DCU's contribution to the overall project.

The second phase will form the majority of the DCU dissemination effort. In this phase, as the research and development work begins to bear fruit, publications in conferences and journals will inform the wider academic audience of Dem@Care.

The third phase will begin close to the end of the project and will focus on informing the general public, academic, industry, and government bodies on the Dem@Care end-products and results, and showing the benefits that Dem@Care offers.

There will be two PhD students in DCU supported by Dem@Care. Their theses (and other publications) will be a significant body of research work developed over the course of the Dem@Care project.

There will also be ongoing education and outreach efforts as part of DCU-CLARITY (Alan Smeaton) in which Dem@Care will form part of the CLARITY portfolio. Additionally, CLARITY has a presence at many industry-facing showcase events, providing more platforms to publicize Dem@Care with industry and government bodies.

In the DCU School of Health and Human Sciences (Kate Irving), there will be two approaches to dissemination. The first is a grass roots approach aimed at getting the concept of Dem@Care into general discourse among practitioners on the ground. The second approach is aimed at influencing policy and decision makers in relation to the benefits of the Dem@Care system.

There are ongoing clinics for people with dementia (MemoryWorks Clinic), where some of the research developed within Dem@Care can be applied. Dr Irving has very well developed networks in dementia care in Ireland including close links with the Alzheimer's Society of Ireland, The Irish Council of General Practitioners and service planners in the Health Service Executive. Dr Irving has an established media presence already and will continue this throughout Dem@Care. These established links will be exploited to ensure maximum exposure of the key dissemination points. Dr Irving is an active member of the European network on research into early detection and timely intervention in dementia (INTERDEM). This organisation meets on a twice-yearly basis. Dr Irving will ensure Dem@Care has a presence at each meeting. Key national and international conferences will be targeted (see Appendix).

The DCU Institute of Ethics is involved in many different outlets and platforms. It runs two international peer reviewed journals ("Medicine, Health Care and Philosophy. A European Journal" & "Studies in Ethics, Law and Technology") and two book series ("The International Library of Ethics, Law and Technology" & "Advances in Global Bioethics"). Moreover, the Institute has an active Facebook and a Twitter account. In addition, Bert Gordijn is Secretary of the European Society for Philosophy of Medicine and Healthcare as well as a member of the newly established Irish National Advisory Committee on Bioethics. We will use all these platforms amongst others for dissemination and publicization of topics around the ethics of ambient assisted living, diagnosis and care for people with dementia.

3.7 IBM

IBM plans to perform research and development in the area of vocal biomarkers for dementia and emotional states. Naturally, IBM represents the engineering part of the research, which is done in cooperation with the other partners of Dem@Care. IBM will leverage two major dissemination directions.

The first direction is the relevant engineering audience: IBM will share and publish the research results through international peer-reviewed conferences and journals, in areas such as signal processing, voice processing and biomedical engineering. Many of these conferences and journals are operated within the scope of the IEEE. Guest lectures in universities and research institutions that IBM cooperates with form an additional dissemination channel.

The second direction is the relevant medical and clinical communities: IBM will cooperate with partners from Dem@Care and other relevant partners within the medical and clinical space, to publish results in relevant conferences and journals.

IBM will also contribute to the consortium-level dissemination activities and materials, presenting the overall project achievements to the ICT community and to EU audiences in general.

IBM will consider issuing press releases subject to the level of achievements of the research.

3.8 PENB

Philips Research will focus on two major dissemination directions. The first refers to the relevant scientific community. Philips Research will publish research findings in relevant international journals and will present research findings at relevant conferences. The second direction aims at informing the general public and healthcare centres and to a lesser degree the scientific community through a dedicated forum for clinicians, scientists and potentially persons with dementia and their family members. The workshop/seminar will be organized in the Netherlands (possibly in combination with similar Philips events in the Healthcare domain). The tentative title is “Dementia and Lifestyle Management”. The purpose of this workshop/seminar is furthermore to promote the Dem@Care project and to raise awareness for the research findings of the project.

Philips Research is moreover planning on having a PhD student or postdoctoral researcher supported by Dem@Care. The PhD student/postdoctoral researcher will publish several papers over the course of the Dem@Care project in relevant peer-reviewed journals and will present findings at international conferences. In case Philips Research will have a PhD student, his dissertation will furthermore be a significant output of the Dem@Care project.

Philips Research will consider press releases concerning the relevant outcomes of the project.

3.9 CHUN

The CHUN has been extensively working on early symptoms detection of dementia and activity analyses using video recognition. Moving to more ecological setting using cutting edge technology will significantly improve the clinical understanding of the disease and fit into the programs of the team. Through extensive participations and training throughout the collaborative networks of Universities, Medical associations, Nursing homes, the Dem@Care

project is directly indicated to be promoted by our expert for prevention and intervention purposes.

The CHUN is committed to publish several articles regarding the acceptability, feasibility and validity of the system. Furthermore, workshop and caregivers training will be provide to enhance knowledge about Dem@Care and ecological ICT systems. CHUN will participate to several national and international conferences to present Dem@Care systems and clinical implications.

Clinical and dissemination of the Dem@Care knowledge will cover areas such as environment safety in home and institution setting, care monitoring and smart coaching for healthy aging process. Thus outpatients and resident from the CHUN network can benefit of such advances.

3.10 VIV

As the leader of WP9, VIV will principally take an organizing and administering role for the collection of dissemination activities. This includes maintaining the dissemination planning tables, monitoring and updating the status of declared activities, adding novel activities based on partner inputs, and internal reporting of the dissemination plans.

In addition to these organizational activities, VIV has also direct dissemination items to be effected during the course of the project. These include:

- Project website on the company page (see Appendix A.2),
- Yearly press releases in Turkish media,
- Awareness, partnering and promotion activities in the sister EU FP7 Regions project JADE,
- Awareness, partnering and promotion activities in the main Turkish healthcare events.

3.11 LCS

LCS will focus its dissemination activities to strengthening the diffusion and circulation of information among relevant stakeholders in order to help them benefit from the technologies and services related to independent living. More specifically, LCS will promote the Dem@Care solutions to Care Facilities and Specialized Nursing Centers through the large network of collaborators in this sector. It is important that IT and general managers of such organisations and their customers are informed about the upcoming and produced results so exploitation and adoption at later stages is more efficient. A series of meetings, presentations and demos will be organized.

4 Summary

In this deliverable, we presented an initial planning of dissemination activities that will be performed during the course of the Dem@Care project. As explained in Section 2, activities are strategically chosen and planned in terms of their benefits to the overall project goal, their target audiences, their timings and their methods. Section 3 provided individual partner-level dissemination plans in conjunction with the Dem@Care three-stage development and dissemination strategy. Accordingly, until 1st Dem@Care system prototype (M20), dissemination efforts will be mainly allocated for awareness raising, partnering and informing activities. In the second phase until the second prototype (M34), informing and engagement activities will take more prominence. In the last phase, promoting and advertising the Dem@Care system components will be the main dissemination focus.

A Appendices

A.1. Dem@Care Activity Table Template

(1) Title of Activity	<p><i>State a descriptive title for the activity</i></p> <p><i>e.g., talk at Int. Conference on ICT in Healthcare, Year or Interview on RadioHealthcare</i></p>
(2) Official Title of the Event	<p><i>State the official title of the related event if applicable</i></p>
(3) Date/Place of Activity	<p><i>State the date and place of the activity if applicable</i></p> <p><i>State if the activity is periodic, continuous or conditional upon a certain milestone</i></p>
(4) Target Audience Category	<p><i>Select from one of the following categories:</i></p> <ul style="list-style-type: none"> - General public - Scientific community - Healthcare center (specify if applicable) - Enterprise (specify if applicable) - Family/relatives (specify if applicable) - Governmental organization (specify if applicable) - Non-governmental organization (specify if applicable)
(5) Dissemination Type/Medium	<p><i>Select from one of the following categories:</i></p> <ul style="list-style-type: none"> - Public website (specify if your organization plans to allocate web space for the project within the organization website) - Press release - Leaflet - Newsletter - Conference paper and/or talk - Event in conference (as attendee) - Journal paper - Booth in exhibition/conference - Talk - Demonstration - Interview (TV, newspaper, website) - Personal communication
(5) Purpose of Activity	<p><i>Select from one of the following categories:</i></p> <ul style="list-style-type: none"> - Raise awareness – let others know what we are doing - Inform – educate the community - Engage – get input/feedback from the community - Promote – “sell” outputs and results
(6) No. of People Addressed (Expected)	<p><i>Provide an estimate of the number of people who will attend the event or be the target of the dissemination activity</i></p>

A.2. Dem@Care Web Presence

Official Project Website (CERTH)

<http://www.demcare.eu>

Facebook (CERTH)

<http://www.facebook.com/pages/DemCare-FP7-Project/147922858638342>

Webpage at ITI Main (CERTH)

<http://www.iti.gr/iti/projects/Dem@Care.html>

Webpage at ITI Multimedia Group (CERTH)

<http://mklab.iti.gr/content/demcare>

Greek Deputy Minister of Health (CERTH)

http://www.bolaris.gr/index.php?page=description&article_id=5580

Public web page in Swedish (LTU)

<http://www.memorylane.nu/demcare>

Public webpage in English and Turkish (VIV)

http://www.vistek-isravision.com/yeni/arge_projeleri.php?dil=en&proje_id=46

http://www.vistek-isravision.com/yeni/arge_projeleri.php?dil=tr&proje_id=46

Dem@Care in the DCU CLARITY group (DCU)

<http://www.clarity-centre.org/content/other-projects>

<http://dcu.ie/news/2011/sep/s0911n.shtml>

CobTek (Dem@Care Researchers) Team Presentation (CHUN, INRIA)

<http://www.cmrr-nice.fr/?p=en-cobtek-presentation>

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Interview with Dem@Care researcher Dr. Philippe Robert (CHUN)

<http://investincotedazur.com/en/newsletter/nice-university-hospital-the-contribution-of-digital-technology-in-the-field-of-&artid=act10499>

INNOVATION 13/02/2012



Nice University Hospital: The contribution of digital technology in the field of mental health

Through the CobTek team, the Memory Resource and Research Centre (CMRR), is combining fundamental and clinical research focusing on new technologies

Interview with Professor Philippe ROBERT, Professor of Psychiatry, Director of the University Host Institution, CobTek and coordinator of the Nice University Hospital Memory Resource and Research Centre (CMRR).

1) Professor Robert, can you tell us about your career and the activity of the CMRR?
The Memory Resource and Research Centre (CMRR) at Nice University Hospital is one of 27 CMRRs in France. Like every CMRR, it has several purposes, including treatment, education, coordination of networks and research as part of the diagnosis, monitoring and care of people with Alzheimer's or another related disease. The Nice University Hospital CMRR is recognised for its expertise in the field of behavioural issues and drug-free treatments as well as in the development of databases and computing. This has led, as part of the 2008-2012 National Alzheimer Plan to its coordination of Measure 34 intended to develop a computerised record system in France, shared by all Memory Centres.

2) What is CobTek? What are the objectives of this university team?
CobTek (Cognition Behaviour Technology) is a University Host Institution which aims to develop new information and communication technologies in the field of healthcare and particularly the areas of mental health and independence. Research focuses in particular on Alzheimer's and related diseases, but also on the prevention of dependence and loss of autonomy, as much in the elderly as adults and even children. This team has been developed by the CMRR and INRIA's STARS team managed by François BREMOND. It could be said that the CobTek team is the merger of fundamental and clinical research aspects focusing on new technologies. This association is a remarkable and essential first for our region.

3) What can digital technology contribute to the field of mental health?
Very simply, it can help in 2 key areas. Firstly, that of assessing behaviours, independence and cognition such as memory or language. However, it is also of major interest in improving care, education and stimulation.

4) Can you tell us about a few of CobTek's projects?
We have two European FP7 projects, one called [COGNITIVE](#) which, with international partners, is trying to develop instruments that can be used to assess the patient equally well within a care facility or at home. The second European project is called VERVE and aims to

Le Figaro Article on the works of Dem@Care Researchers (INRIA)

<http://www.lefigaro.fr/sciences/2012/02/16/01008-20120216ARTFIG00693-la-robotique-au-service-de-l-autonomie-des-personnes.php>

Mise à jour 09/12

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OUVRIR

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ACTUALITÉ > Sciences [S'abonner au Figaro.fr](#)

La robotique au service de l'autonomie des personnes

Mots clés : Inria, Robotique, Autonomie, François Brémont

Par [Cyrille Vanierberghe](#)

Publié le 16/02/2012 à 19:07 Réactions (2)

[J'aime](#) 13 [Tweeter](#) 23 [Recommander](#)

Des chercheurs de l'Inria inventent des systèmes intelligents pour l'assistance des personnes fragiles.

«Savez-vous quelle est la taille minimale pour qu'un robot humanoïde puisse soulever un adulte? demande Jean-Pierre Merlet, chercheur Inria à Sophia Antipolis près d'Antibes. Il faut un robot qui fait au minimum 180 kg, avec toute la complexité et les limites d'autonomie qui vont avec.»

Loin des visions futuristes de robots bipèdes dont raffolent les Japonais, le scientifique et son équipe ont plutôt mis au point un dispositif robuste et simplissime, baptisé robot à câbles, qui peut aider les personnes malades ou handicapées à se lever, s'asseoir, se coucher ou se déplacer de manière autonome dans une chambre.

Un coût de mille euros

Presentation of Dem@care at large public scientific conference in Bordeaux, France.



L'Université Bordeaux 1 présente

café sciences

Alzheimer :
la mémoire qui fait des faux ?

Mercredi 14 mars > 18 heures

Librairie Georges à Talence
Place du forum - Tram B - Arrêt Forum

Jean-François Dartigues (ISPED / Bordeaux Segalen) - **Jenny Benois-Pineau** (professeur en informatique à l'Université Bordeaux 1, équipe « Image et Son » du LABRI - Laboratoire bordelais de recherche en informatique) - **Rémi Mégret** (maître de conférence à l'IMS - Laboratoire de l'intégration du matériau au système).

De nombreuses personnes se plaignent à leur médecin d'avoir une mauvaise mémoire. On estime que 50 % des personnes atteintes de la maladie d'Alzheimer ne sont pas diagnostiquées et que 70 % ne sont pas traitées. Comment faire la différence entre des troubles de la mémoire bénins et ceux qui annoncent une véritable maladie d'Alzheimer ? Comment fonctionne la mémoire ? Pourquoi se dégrade-t-elle avec l'âge ?
À l'occasion de ce café sciences une démonstration du dispositif utilisé dans les projets IMMED et Dem@Care sera proposée.
Débat animé par **Halima Hadi**.

RENSEIGNEMENTS : Service Culturel Université Bordeaux 1 / Château Bonafont 351 cours de la Libération 33485 Talence Cedex
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A.4. ID Card (Project Factsheet)



Dementia Ambient Care: Multi-sensing Monitoring for Intelligent Remote Management and Decision Support

Dem@Care aspires to develop an innovative multi-parametric remote monitoring framework that will enable timely diagnosis, assessment, maintenance and promotion of self-independence of people with dementia

Objectives of the project

Clinical context
Dementia, a leading cause of disability in the elderly, currently affects nearly 10 million people in Europe and over 35 million worldwide. Rising at unprecedented rates, these figures are projected to increase to 14 and 65.7 millions respectively by 2030. The socioeconomic repercussions are equally staggering. In Europe alone, the total costs of dementia amount to over €180 billion in 2010 and are estimated to exceed €250 billion by 2030.

The aforementioned inflict a significant burden on healthcare systems, society and the economy, necessitating effective treatment means, while preserving quality of life for the people affected and for their carers.

The project
Dem@Care develops a remote care solution that will contribute to enhanced diagnosis and timely, personalised support by deepening the understanding of how the disease affects everyday life and behaviour among people with dementia.

Dem@Care's main objectives are:

- Advance clinical research, by correlating behavioural and cognitive monitoring parameters with dementia-specific patterns.
- Timely diagnosis, continuous follow-up and personalised, adaptive feedback, by enhancing clinical workflows and enabling objective assessment of health status and progress.
- Sustain self-independence, autonomy, safety and sense of security, by direct support to people with dementia and their carers.
- Raise awareness of ICT solutions for ageing well.

Project Description
Current clinical workflow for dementia involves geriatric assessment by clinicians through visits and questionnaires, where diagnosis is based on changes in cognitive functions, behaviours and activities of daily life, characteristic of the dementia syndrome and its underlying diseases.

Dem@Care aspires to enhance current practices through a closed-loop remote management solution that affords interactive feedback to the person with dementia, while at the same time including clinicians into the remote follow-up, enabling them to maintain a comprehensive view of the health status and progress of the affected person. Specifically, it implements:

- A loop for people with dementia and their informal caregivers that: i) monitors and assesses their cognitive and behavioural status by integrating a multiplicity of wearable and in-situ sensors, ii) enables time evolving context-sensitive profiling to support reactive and proactive care, iii) provides personalised and adaptive support.
- A professional loop that: i) provides objective observations regarding the health progression of the person with dementia and medication effectiveness, ii) warns about trends closely related to dementia (e.g. apathy), iii) supports preventive care decision making and adjustment of treatment recommendations.

To alleviate the subjectivity of current clinical practices, while accounting for the complexity and heterogeneity of the disease, Dem@Care follows a multi-parametric behaviour interpretation of sensors for monitoring daily activities, lifestyle patterns, speech impediments, state of mood, and vital signs.

Clinicians, people with dementia and their carers are involved throughout the analysis, design, development and testing phases in order to maximise the afforded impact. Additionally, ethical assessment ensures that the dignity and privacy of people with dementia is not affected more than is motivated by the benefits that the system will bring to them, while ways of protecting identifiable personal data in an unobtrusive manner are included.

For validation, three pilots will be carried out in Ireland, France and Sweden, in collaboration with regional clinics, residential care centres and health councils. In each pilot, system implementations of increasing functionality will be evaluated.

PRACTICAL EXAMPLE

In Dem@Care, people with dementia will be monitored by various sensors in everyday life tasks such as cooking or watching TV, cognitive activities and social interactions. At first stages this will take place in controlled environments and later in the homes of people with dementia. These observations will be automatically analyzed and interpreted allowing the correlation of specific behavioral patterns with the disease progress and also direct, personalized feedback. For example, long-term apathy detection can contribute to the understanding of how the disease affects every day life and behavior and on the same time provide feedback and stimulation towards a more active lifestyle.

Appropriate experimentation and evaluation protocols will be defined so as to robustly address clinical assessment as well as critical quality aspects including acceptability, usability, functionality, reliability and safety.

Expected Results & Impacts

Dem@Care expects to enhance current clinical practices and afford new knowledge related to the diagnosis and management of dementia. More specifically, Dem@Care is anticipated to result in:

- clinical protocols that will effectively correlate sensorial inputs related to behavioural and cognitive patterns with dementia-specific parameters.
- elicitation and validation of new clinical knowledge for improved diagnostic precision and effectiveness.

These results will allow Dem@Care to have a strong impact on the quality of life of people with dementia, with direct effects on their informal carers as well, by providing:

- Improved quality of care, through objective, comprehensive diagnosis, and customised reactive and proactive support.
- Increased safety and sense of security, through real-time adaptive feedback and alarms.
- Timely treatment of disease symptoms, afforded through early detection of health status degradation and through personalised cognitive support.
- Sustained independence and autonomy, enabling to better cope with daily life functions, while reducing the need for constant monitoring.

In parallel, Dem@Care expects to have significant socioeconomic benefits, including:

- reduced cost of clinical care
- reduced cost of monitoring
- delayed admittance to nursing facilities
- sustainable at-home care solutions



Dem@Care

Dementia Ambient Care: Multi-sensing Monitoring for Intelligent Remote Management and Decision Support

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- Institut National de Recherche en Informatique et en Automatique (France)
- Luleå Tekniska Universitet (Sweden)
- Dublin City University (Ireland)
- IBM Israel – Science and Technology LTD (Israel)
- Philips Electronics Nederland B.V. (Netherlands)
- CHU de Nice (France)
- Virtual Care Vision Yayıncılık ve Otomasyon, Sanayi ve Ticaret Bakanlığı (Turkey)
- Link Care Services SA (France)

Timetable: from November 2011 to November 2015

Total cost: € 10,761,967

EC funding: € 7,300,000

Instrument: DP

Project Identifier: FP7-ICT-2011-7-288199

KEYWORDS

Multi-parametric behaviour integration, Personalised health, Remote management of people with dementia, Continuous multi-sensor monitoring, Customisable adaptive feedback