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Project Title:	Decrease of cOgnitive decline, malnutrRtion and sedEntariness by elderly empowerment in lifestyle Management and social Inclusion



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#### **Abstract**

The "Dissemination activities report" aims at describing the activities that the DOREMI consortium has implemented to communicate the on-going results of the project to relevant stakeholders and the wider society in the first 18 months of the project.

To this end, the report will include a revision of the "Dissemination plan" presented in the previous deliverable D7.1 by describing a series of actions to be performed trough the use of social networks (Twitter, Facebook), and the blog section set up in the DOREMI website. Together with these on-line actions, a series of possible off-line events to disseminate the results of DOREMI are also presented.

The document further contains a discussion of possible synergies that are already planned or that we plan to establish between DOREMI and other EU-projects/actions currently active in Europe.

In addition, a list of publications, the planning of new newsletters and the production of videos to describe the DOREMI work to a general audience in the year 2015 are also presented.

Finally, the deliverable provides the dissemination activities that have been planned for the next semester (from May 2015 to October 2015) from each partner.

### Keywords

Dissemination activity plan; communication strategy and related activities; dissemination initiatives at individual level and for the consortium as a whole.



# ICT / Specific Targeted Research Projects (STReP) FP7-611650

## **DELIVERABLE D7.6**

### **Title**

## **D7.6** – **Dissemination activities report**

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0.3	CNR-IFC	Consolidation	25/03/2015
0.4	AGE and UOC	Further revision	25/04/2015
0.5	All consortium	Individual dissemination activities	08/05/2015
0.6	UOC, CNR-IFC	Consolidated version and submission	11/05/2015



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### D7.6 - Dissemination activities report



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## 1. Abbreviations

**AAL**: Ambient Assisted Living **DoW**: Description of Work

**EIP AHA:** European Innovation Partnership for Active Healthy Ageing

**EU**: European Union **JP**: Joint Program **MS**: Milestone



## 2. Executive Summary

As already discussed in the Dissemination Plan (D7.1), the dissemination activity is regarded as a key factor for the success of the DOREMI project due to both its foundational level (of specific interest for academic partners) and its clear societal exploitation opportunities of promoting good and healthy behaviors, whose ultimate objectives are:

- To stress the advantages in the preventive care for aged persons, its benefits, use and applicability in the different health market sectors.
- Finding potential sponsors and partners for the enforcement of the DOREMI concept (hospitals, telecare operators, manufacturers, health insurance companies, etc.).
- Co-creating two-way communication channels with relevant stakeholders, research communities, policy makers, media and industry for disseminating the achievements and results.
- Ensuring that the project results will live in a commercial context after the project closure (thus assisting the Exploitation of the project results).

To this end, we have revised and improved the rules of the dissemination activities that have been developed during the last 18 months of the project lifecycle in this deliverable, and at the same time better planned the dissemination activities that will be developed by the DOREMI consortium in the next 6 month of the project.

For a better coordination of the dissemination activities, a dissemination board composed by AGE, UOC and CNR-IFC was created on month 18.



### 3. Introduction

As already observed in D7.1 (Dissemination Plan), one of the most important elements for the success of the DOREMI initiative is the awareness creation of the ongoing achievements within the enlarged community of stakeholders that is involved in the care management process of the aged population.

Achieving consensus on the project results across the scientific community is a fundamental step of our research activity. However, without acceptance of the project outputs by the health care organizations in charge of the care management process of the aged persons, as well as the rising interest of the various actors involved in the care activities, we could encounter difficulties to stimulate the health market towards DOREMI products and services and risk hindering a significant adoption of the proposed solution once availability for the market is established.

Therefore, in the D7.1 we have already recognized the importance of the dissemination activity not only to give a wider diffusion of the information about the project achievements, but also to create awareness and consensus around the project within the entire stakeholder community relevant to the DOREMI solution.

To this end, Chapter 4 describes the Dissemination board and the aims underpinning its governance of the dissemination activities that are outlined in Chapter 5 and in subsequent chapters.

Chapter 6 elaborates on the current use of the on-line dissemination channels and tools, while Chapter 7 discusses the engagement rules that the DOREMI dissemination board has agreed with the other partners of the project in order to increase the effectiveness of the dissemination activities.

Moreover, Chapter 8 and 9, respectively, outline the current dissemination activities that we plan to perform in 2015 as whole DOREMI consortium, and the individual dissemination plan of each project partner.

Chapter 10 describes the synergies of the DOREMI project with other relevant initiatives, while Chapter 11 describes the DOREMI newsletter plan for this year.

Finally, Chapter 12 provides a brief description of the short video that will be developed in the year 2015 on on-going DOREMI results.



## 4. Structure, organization and aims of the DOREMI Dissemination Board

The Dissemination Board will consist of representatives from the three core partners in the work package on dissemination (WP7), namely CNR-IFC, UOC and AGE.

The Dissemination Board members will draft action plans for dissemination, but each document will be submitted to all partners for comments and plan implementation before any decisions are taken.

The Dissemination Board will organize regular teleconference calls. There will be no physical meetings, except if the Board can piggyback on plenary meetings, which are taking place independently of the Dissemination Board, and dedicate one hour for a Dissemination Board meeting in connection to the plenary meetings. The following chapters describe the current revision of the dissemination plan and related activities defined by the Dissemination Board and agreed with the DOREMI consortium members.

## 5. Revision of the DOREMI dissemination action plan outlined in D7.1

Starting from the dissemination table outlined in D7.1, Table 1 below provides an upgrade of the Dissemination Plan for 2015 according to the on-going results already achieved and the results expected during the year. The scope of the table is to align on-line and off-line dissemination actions with the on-going results of the project as identified by project milestones described in the DoW.

Table 1 DOREMI Dissemination Plan for 2015.

Milestones	Expected results	On-line action	Off-line action	Target audience
MS4 (M18)	Preliminary version of the DOREMI environment	One outreach initiative to consolidate the stakeholder community to be launched together with the establishment of Facebook (see §7.1) and Twitter (see §7.2) community (in §7)	See Table 3 in §8 and the individual dissemination plan descried in §9	Scientific community, health care professionals, care managers, service providers, policy makers, community of users
		One Many to many initiative on the DOREMI intermediate achievements (see §7.3 website in §7)  Newsletters to promote project results towards stakeholder community an wide audience (see §11)		
MS5 (M24)	DOREMI prototype	One outreach initiative to increase the stakeholder community and to promote the DOREMI achievements. This activity will be organized in correspondence to the	See Table 3 in §8 and the individual dissemination plan descried in §9	Scientific community, health care professionals, care managers, service providers, community of users



		participation of DOREMI project to the EXPO in Milan (see §8)  One Many to many initiative on the DOREMI intermediate achievements (see §7.3 website)		
MS7 (M24)	Social and gamified environment ready for integration	One Open debate on the relevant deliverables of DOREMI (see §7.3 website in §7)  Newsletters to promote project results towards stakeholder community an wide audience (see §11)  Short video to promote DOREMI on-going results (see §12)	See Table 3 in §8 and the individual dissemination plan descried in §9	Scientific community, health care professionals, care managers, policy makers, service providers, community of users
M13 – M24	Preliminary version of DOREMI prototype; DOREMI prototype; Social and gamified environment ready for integration	DOREMI synergies with other	<b>r initiatives</b> (see §10)	Scientific community, health care professionals, care managers, policy makers, service providers, community of users

### 6. Current use of DOREMI on-line dissemination channels and tools

Deliverable D7.8 described the current dissemination tools of the project. These comprise:

- Web site
- Twitter account
- Facebook account

Until now, the dissemination activity performed through these three channels has been rather limited. Therefore, the Dissemination Board decided to increase the use of these channels and to seize opportunities offered by these channels to start creating a DOREMI community on the basis of the potential followers identified in D7.8.

The agreed strategy consists in creating this community through the establishment of a continuous awareness process around the DOREMI project by publishing relevant content related to DOREMI's on-going and expected results that could be of interest to stakeholders on Facebook and Twitter accounts.

To this end, it has been discussed in the last consortium meeting in Valencia to start creating the initial stakeholders' community by showing at least one of the games under development of the project.

This possibility has been positively judged by the technical partners and we plan to show the first game developed by the project no later that end of July 2015 to the stakeholder community.



## 7. Action plan for increasing the effectiveness of DOREMI dissemination channels

The dissemination board recognizes the importance of the on-line community already available within social networks such as Facebook and Twitter. At the same time, as reported in the previous chapter, the current use of these social networks has been rather limited. In order to improve the use of these social networks and seize the opportunity to establish a DOREMI community in the short-term we plan the following stakeholder engagement activities:

### 1. Creation of Facebook and Twitter communities:

- AGE, UOC and CNR-IFC are inviting the contacts in the potential DOREMI community listed in D7.8 to follow DOREMI on Facebook and Twitter.
- In order to stimulate the interest of the contacts to become follower of DOREMI on Facebook and Twitter we plan to show one of the games developed by the project.
- 2. Continuous collection of information on on-going results of the project. Relevant information on the project or information related to the DOREMI "concept" will be collected on a weekly basis. AGE is responsible for emailing the partners once a week to contribute information. Those emails will have the form of a predefined template, in which each partner can provide following contents:
  - Relevant achievements by the partner in the project during the week;
  - Relevant publications/events produced or foreseen to be done by the partners and related to the project or to the DOREMI "concept";
  - Relevant events or issues related to the DOREMI "concept" that are proposed by the partner;
  - Relevant messages related to the DOREMI "concept" proposed by the partner.
- 3. Engagement of the DOREMI community with the information collected on a weekly basis.
  - AGE, UOC and CNR will manage the Twitter and Facebook accounts on a weekly basis, re-organizing the information collected from the partners as described under point 2 (Continuous collection of information on on-going results of the project).

In particular, for each on-line dissemination channel, the dissemination board has agreed on the following rules.

### 7.1 Twitter

All three core dissemination partners are responsible for monitoring and participating in online discussions relevant to the theme. The aim is to post one tweet per weekday and tweet directly at stakeholders when it is relevant.

AGE is responsible for three tweets per week and CNR IFC-ISTI and UOC are responsible for posting one tweet per day according to the following scheme: Monday – AGE; Tuesday – CNR (IFC and ISTI); Wednesday –AGE; Thursday – UOC; Friday – AGE.

### 7.2 Facebook

The aim is to publish a minimum of one post every two weeks, preferably supported by a picture. AGE will be responsible for posting updates, but will need input from all partners to do so. The



information that will be posted on Facebook will not necessarily be related to specific project results, but could also comprise relevant information and results of other initiatives related to the project scope and expected results of DOREMI. Events, relevant publications, news, and any other significant information that could be of interest for the DOREMI stakeholder community will be published. Moreover, AGE and the other partners of the Dissemination Board will encourage any stakeholder to use the DOREMI Facebook account as a means to exchange point of views, knowledge, information, etc. with the DOREMI stakeholder community members and the public. To reinforce the link with the stakeholder community and to increase the number of participants, some outreach initiatives will also be developed during this period as already outlined in Table 1.

### 7.3 Website

The news section is now organized with a blog structure. This tool will allow the dissemination partners (AGE, UOC, CNR-IFC) to post updates on the website without having to contact the webmaster. It will be possible to copy the link to the post and use it in the social networks, redirecting audiences to the website. Based on the expected project results, we have prepared the following list of possible topics for blog posts for next six-month project Table 2.

Period	Topic
May - August 2015	Web article on bracelet
May - August 2015	Web article on serious games
May - August 2015	Web article on smart carpet
May - August 2015	Web article on home sensors
September - December 2015	Web article on nutrition
September - December 2015	Interview with coordinator
September - December 2015	Article presenting pilot sites
September - December 2015	Interview with responsible at pilot sites

Table 2 Content for website/blog

### 7.4 Other support tools

In order to develop an open debate with the stakeholders' community in 2015 (see Table 1), UOC will transform public deliverables of the project into on-line documents that can be commented upon by using:

- A collaborative bookmarking group https://www.diigo.com/ or a similar tool;
- Collaborative comments and annotations <a href="http://commentneelie.eu/">http://commentneelie.eu/</a> or a similar tool.

This will be beneficial in the strife to increase the direct interest of relevant stakeholders to the on-going achievements of the project.



## 8. List of possible dissemination and event opportunities for the DOREMI project during the year 2015

In the following table we have outlined a list of dissemination activities and event opportunities that the DOREMI consortium has already selected as relevant initiatives to disseminate the project's on-going results during the year 2015, while the next chapter outlines the individual dissemination plans of each DOREMI consortium member. The Dissemination Board will periodically update the tables provided in Chapter 8 and Chapter 9 (every three months).

Table 3: Dissemination activity and events opportunities for DOREMI project during 2015

Date	Event	Location	Audience
9-10 March	European Summit on Innovation for Active and Healthy Ageing	Brussels	Researchers, policy makers and health professionals
11 March	Info Day for the AAL JP Call on "Living active and independently at home",	Brussels	Researchers, policy makers
26-27 March	AGE Council of Administration	Brussels	Healthy ageing advocacy organizations, General public (older people)
23-25 April	Third International Conference on Aging & Cognition	Dortmund	Researchers
11-13 May	eHealth week 2015	Riga	Researchers, policy makers and health professionals
20-22 May	ICT 4 Ageing Well Conference	Lisbon	Researchers, policy makers and health professionals



8-9 June	ISBNPA 2015 Satellite meeting "Determinants of Sedentary Behavior across the life course"	Glasgow	Researchers
14-17 October	8th European Public Health Conference	Milan	Researchers, policy makers and health professionals
20 October	EXPO 2015	Milan	policy makers and health professionals General public (older people)
5-6 November	ESNO Summit "Specialist Nurses in the EU Healthcare Arena"	Brussels	Researchers, policy makers and health professionals
18-20 November	AGE General Assembly	Brussels	Healthy ageing advocacy organizations, General public (older people)

## 9. Individual dissemination activities

## 9.1. CRN-IFC

Conferences, exhibitions, workshops, seminars

Partner	Activities	
CNR-IFC	Event title	Better connected event
	Website	http://iewmwp.boilerhouse.co.uk/?p=132
	Date (start-end)	June 18, 2014
	Location	Himley Hall, Himley, Dudley, UK
	Objective	To present DOREMI environment to housing organizations and local authorities



Target audience	The event is intended specifically for housing organizations and will be of particular interest to those in business development roles. It is also being aimed at local authorities. Expected number: about 100 participants.
Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Workshop. ADASS West Midlands, together with the Black Country Collaborative Working Group, is hosting this informative one day event which aims to increase the awareness and appreciation of assistive technology products and the huge range of benefits they offer both residents and housing providers
Participating partners	ACCORD, EXTRACARE, DMU
Report	Getconnected - Improving lives - assistive technology and supported housing
(event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	This is a free event to help housing organizations across the West Midlands; understand the role of telecare assistive technology in supported housing. The event will help you better support vulnerable residents in their homes.
Publishable summary for DOREMI website	The workshop was focused on the presentation of new technological solutions to support elderly people in their daily activities and improve their Quality of Life
Useful for exploitation (Yes/No)	YES

Partner		Activities
CNR-IFC	Event title	European Summit on Innovation for Active & Healthy Ageing
	Website	http://ec.europa.eu/research/innovation- union/index_en.cfm?section=active-healthy- ageing&pg=2015-summit
	Date (start-end)	March 9-10, 2015
	Location	Brussels, Belgium



Objec	et audience	To highlight the opportunity of Innovation Partnership in AHA, to reinforce the network of EIP, to create opportunities for industry, jobs and growth, with the aim to improve the quality of life of elder European citizens.  investors, including social investors, representatives of the construction and tourism sector, researchers
	cipation type symposium, seminar, presentation, press , etc.)	Joining partners of ICT projects on Active Healthy Ageing (Perssilla, Chefmyself). Meeting members of AG A3. Collaboration with AGE Platform at AGE stand. DOREMI dissemination. Participation at numerous workshop and thematic debates.
Partio	cipating partners	CNR-IFC
Report (event dissemi present impact comme	description, inating actions, ters' perception of	Disseminating actions have been promoted by presenting DOREMI activities at Companies involved in Nutrition business (Fraunhofer, ME.TE.DA), collaborating with AGE Platform at AGE stand, meeting other researchers of EIP-AHA AG A3. Receiving feedbacks on DOREMI impact in AHA, as an ICT approach to involve and stimulate frail older people in nutrition and physical activity healthy habits, through the use of serious games (diet and exergames), as well as in improving cognitive function by stimulating tools (cognitive games).
	shable summary OREMI website	
Usefu (Yes/I	ul for exploitation	YES

## 9.2. CNR-ISTI

### **Publications**

Partner		Activities
CNR-ISTI	Article publication title	Human Activity Recognition using Multisensor Data Fusion based on Reservoir Computing
	Authors	Filippo Palumbo, Claudio Gallicchio, Rita Pucci, Alessio



	Micheli
Journal/magazine/book	Journal of Ambient Intelligence and Smart Environments.
title	IOS Press.
Field/sector	Computer Science
Submission/acceptance	Acceptance date: 22-04-2015
date	
Web URL	
Publication volume /	In Press. Volume not yet assigned.
issues/ day-month-	
year/ pages from-to	
Article description	Activity recognition plays a key role in providing activity assistance and care for users in smart homes. In this work, we present an activity recognition system that classifies in the near real-time a set of common daily activities exploiting both the data sampled by sensors embedded in a smartphone carried out by the user and the reciprocal Received Signal Strength (RSS) values coming from worn wireless sensor devices and from sensors deployed in the environment. In order to achieve an effective and responsive classification, a decision tree based on multisensor data-stream is applied fusing data coming from embedded sensors on the smartphone and environmental sensors before processing the RSS stream. To this end, we model the RSS stream, obtained from a Wireless Sensor Network (WSN), using Recurrent Neural Networks (RNNs) implemented as efficient Echo State Networks (ESNs), within the Reservoir Computing (RC) paradigm. We targeted the system for the EvAAL scenario, an international competition that aims at establishing benchmarks and evaluation metrics for comparing Ambient Assisted Living (AAL) solutions. In this paper, the performance of the proposed activity recognition system is assessed on a purposely collected real-world dataset, taking also into account a competitive neural network approach for performance comparison. Our results show that, with an appropriate configuration of the information fusion chain, the



		proposed system reaches a very good accuracy with a low deployment cost.
Та	arget audience	Computer scientists
Pa	articipating partners	UNIPI
	Publishable summary or DOREMI website	Activity recognition plays a key role in providing activity assistance and care for users in smart homes. In this work, we present an activity recognition system that classifies in the near real-time a set of common daily activities exploiting both the data sampled by sensors embedded in a smartphone carried out by the user and the reciprocal Received Signal Strength (RSS) values coming from worn wireless sensor devices and from sensors deployed in the environment. In order to achieve an effective and responsive classification, a decision tree based on multisensor data-stream is applied fusing data coming from embedded sensors on the smartphone and environmental sensors before processing the RSS stream. To this end, we model the RSS stream, obtained from a Wireless Sensor Network (WSN), using Recurrent Neural Networks (RNNs) implemented as efficient Echo State Networks (ESNs), within the Reservoir Computing (RC) paradigm. We targeted the system for the EvAAL scenario, an international competition that aims at establishing benchmarks and evaluation metrics for comparing Ambient Assisted Living (AAL) solutions. In this paper, the performance of the proposed activity recognition system is assessed on a purposely collected real-world dataset, taking also into account a competitive neural network approach for performance comparison. Our results show that, with an appropriate configuration of the information fusion chain, the proposed system reaches a very good accuracy with a low deployment cost.

Partner	Activities	
CNR-ISTI	Article publication title	CEO: a Context Event Only indoor localization technique



	for AAL
Authors	Francesco Potortì, Filippo Palumbo
Journal/magazine/book title	Journal of Ambient Intelligence and Smart Environments, IOS Press.
Field/sector	Computer Science
Submission/acceptance date	Acceptance: 30-09-2015
Web URL	
Publication volume / issues/ day-month-year/ pages from-to	In Press. Volume not yet assigned.
Article description	Ambient Assisted Living applications are deployed in smart environments that provide some basic services, a typical example being user localization. AAL applications generally have low accuracy requirements for indoor localization; this opens the opportunity for parasitizing the existing smart environment infrastructure without adding dedicated positioning sensors. In this scenario, one can exploit simple binary sensors that are usually present in the smart environment, such as light and appliance switches or intrusion detection sensors, to obtain a rough estimate of the position of the user. This application is device-free, meaning that the user is not required to carry any device in order to be localized. In this paper we present CEO, a software-only system which we evaluate along the technical guidelines of the EvAAL competition. While the localization performance of CEO is lower with respect to most EvAAL competitors of past editions, it has the benefit of being non-intrusive, easy to install and perfectly compatible with other software systems: these characteristics would made it a potentially significant EvAAL competitor. While developing CEO, we only exploited the definition of the EvAAL competition environment as it was presented to competitors. The only inputs to CEO are the context events generated during the competition, which in 2012 and 2013 were limited to pressing light switches and



		using a stationary bicycle. We compare the performance
		of CEO against the results of those editions of EvAAL and
		show how it can be used to easily improve the
		performance of any EvAAL competitor.
		Consentantesiantista
Target	t audience	Computer scientists
Partic	ipating partners	
		Ambient Assisted Living applications are deployed in
		smart environments that provide some basic services, a
		typical example being user localization. AAL applications
		generally have low accuracy requirements for indoor
		localization; this opens the opportunity for parasitizing
		the existing smart environment infrastructure without
		adding dedicated positioning sensors. In this scenario,
		one can exploit simple binary sensors that are usually
		present in the smart environment, such as light and
		appliance switches or intrusion detection sensors, to
		obtain a rough estimate of the position of the user. This
		application is device-free, meaning that the user is not
		required to carry any device in order to be localized. In
		this paper we present CEO, a software-only system
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		and 2013 were limited to pressing light switches and
		using a stationary bicycle. We compare the performance
		of CEO against the results of those editions of EvAAL and
		show how it can be used to easily improve the performance of any EvAAL competitor.
		performance of any EVAAL competitor.



## 9.3. **UNIPI**

## Conferences, exhibitions, workshops, seminars

Partner	Activities	
UNIPI	Event title	Sensori intelligenti (intelligent sensors)
	Website	http://www.internetfestival.it/en/
	Date (start-end)	10/10/2014
	Location	Pisa, Internet festival
	Objective	To present the problem, motivation and general methodology of DOREMI
	Target audience	Schools, citizens
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Stand and oral presentation
	Participating partners	-
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	The event was aimed at disseminate to the audience recent research results on ambient assisted living and ehealth, and it included a presentation of the objectives and preliminary results of DOREMI.  The audience was composed mainly by high-school students, their teachers and some curious. Feedbacks had been very positive and encouraging, attendees were eager to learn more and asked questions concerning the technologies used, and about the sensors.
	Publishable summary for DOREMI website	The DOREMI project was presented as a part of a wider presentation about intelligent sensors for e-health, held by UNIPI at the Internet Festival in Pisa (Italy) on October 2014. The audience was composed by high-school students, teachers and curious, thus the presentation of DOREMI was high-level and focused on the problem, motivations and on the general methodology and



	approach.
Useful for exploitation	yes
(Yes/No)	

Partner		Activities
UNIPI	Event title	Learning in Intelligent Sensor Networks
	Website	http://aiia2014.di.unipi.it/mldm/index
	Date (start-end)	11/12/2014
	Location	Pisa, 3 <sup>rd</sup> Italian Workshop on Machine Learning and Data Mining, Workshop of the XIII AI*IA Symposium on Artificial Intelligence
	Objective	To present the machine learning aspects in the DOREMI project
	Target audience	Researchers, academia
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	oral presentation
	Participating partners	-
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	The event was aimed at disseminate the problem of activity recognition in the DOREMI project and to discuss the methodology and approach. The presentation focused on the key features of the software system for learning in intelligent sensor networks.
	Publishable summary for DOREMI website	The machine learning aspects in the activity recognition components of DOREMI have been presented at the 3 <sup>rd</sup> Italian Workshop on Machine Learning and Data Mining, which was held in Pisa on 10-11 December, 2014.



	Considering the early stage of the project, the
	presentation focused on the description of the problem
	and approach, and on thekey features of the software
	system for learning in intelligent sensor networks. The
	audience was particularly interested in the approach, and
	shown interest for the issues related to such
	developments.
Useful for exploitation	yes
(Yes/No)	

Partner		Activities
UNIPI	Event title	Ricerca: con 'Doremi' arriva la tecnologia indossabile che aiuta gli anziani
	Website	http://firenze.repubblica.it/dettaglio- news/15:36/4548931
	Date (start-end)	07/10/2014
	Location	-
	Objective	-
	Target audience	General audience
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Press release: La Repubblica (national, Italy)
	Participating partners	-
	Report	-
	(event description, disseminating actions, presenters' perception of impact on participants, comments, feedback,	



etc.)	
Publishable summary for DOREMI website	The presentation of DOREMI at the internet festival was reported in the Italian newspaper La Repubblica (national). The article explain the approach of DOREMI in promoting an Active Aging Lifestyle Protocol for the elderly, and in the use of wearable technologies to assess the progress of the elderly following the protocol.
Useful for exploitation (Yes/No)	yes

Partner		Activities
UNIPI	Event title	Doremi: arriva da Pisa il braccialetto intelligente dedicato agli anziani;
	Website	http://www.lastampa.it/2014/10/07/tecnologia/doremi- arriva-da-pisa-il-braccialetto-intelligente-dedicato- agli-anziani- mLtWiVnBmNMXy5DHT3F7LM/pagina.html
	Date (start-end)	07/10/2014
	Location	-
	Objective	-
	Target audience	General audience
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Press release: La Stampa (national, Italy)
	Participating partners	-
	Report	-
	(event description, disseminating actions, presenters'	



Useful for exploitation (Yes/No)	or	yes
Publishable summary fo DOREMI website	or	The presentation of DOREMI at the internet festival was reported in the Italian newspaper La Stampa (national). The article explain the approach of DOREMI in promoting an Active Aging Lifestyle Protocol for the elderly, and in the use of wearable technologies to assess the progress of the elderly following the protocol.
	of on	

Partner		
raithei	Activities	
UNIPI	Event title	Doremi, il braccialetto che monitora funzioni anziani
	Website	http://www.ansa.it/sito/notizie/tecnologia/hitech/2014/10/08/braccialetto-monitora-funzioni-anziani_ecf9b74b-82f0-4fff-8c6c-ea7f17d9c533.html
	Date (start-end)	08/10/2014
	Location	-
	Objective	-
	Target audience	General audience
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Press release: Ansa (national, Italy)
	Participating partners	-
	Report	-
	(event description,	



disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	
Publishable summary for DOREMI website	The presentation of DOREMI at the internet festival was reported by the Italian news agency ANSA (national). The article explain the approach of DOREMI in promoting an Active Aging Lifestyle Protocol for the elderly, and in the use of wearable technologies to assess the progress of the elderly following the protocol.
Useful for exploitation (Yes/No)	yes

Partner	Activities	
UNIPI	Event title	Ricerca: con DOREMI arriva la tecnologia indossabile che aiuta gli anziani
	Website	http://www.pisatoday.it/cronaca/doremi-universita- pisa.html
	Date (start-end)	07/10/2014
	Location	-
	Objective	-
	Target audience	General audience
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)  Participating	Press release: Pisa Today (Local, Italy)
	partners	



(i d a p ii p	event description, disseminating actions, presenters' perception of ampact on participants, comments, deedback, etc.)	
s	Publishable summary for DOREMI website	The presentation of DOREMI at the internet festival was reported in the Italian newspaper Pisa Today (local). The article explain the approach of DOREMI in promoting an Active Aging Lifestyle Protocol for the elderly, and in the use of wearable technologies to assess the progress of the elderly following the protocol.
e	Jseful for exploitation Yes/No)	yes

Partner	Activities	
UNIPI	Event title	DoReMi, la tecnologia indossabile aiuta gli anziani
	Website	http://www.marcopolonews.it/fashion-design/doremi-la- tecnologia-indossabile-aiuta-gli-anziani
	Date (start-end)	08/10/2014
	Location	-
	Objective	-
	Target audience	General audience
	Participation type	Press release: Marco Polo news (Local, Italy)
	(stand, symposium,	
	seminar, oral	
	presentation, press	



release, etc.)	
Participating	-
partners	
Report	-
(event description,	
disseminating	
actions, presenters'	
perception of	
impact on	
participants,	
comments,	
feedback, etc.)	
Publishable summary for DOREMI website	The presentation of DOREMI at the internet festival was reported in the Italian news website Marco Polo news (national). The article explain the approach of DOREMI in promoting an Active Aging Lifestyle Protocol for the elderly, and in the use of wearable technologies to assess the progress of the elderly following the protocol.
Useful for	yes
exploitation	
(Yes/No)	

Partner	Activities	
UNIPI	Event title	Ricerca: con 'Doremi' arriva la tecnologia indossabile che aiuta gli anziani
	Website	http://www.liberoquotidiano.it/news/cronaca/11703602/RicercaconDoremihtml
	Date (start-end)	07/10/0214
	Location	-
	Objective	-
	Target audience	General audience
	Participation type	Press release: Libero Quotidiano (web, Local, Italy)



(stand, symposium, seminar, oral presentation, press release, etc.)	
Participating partners	-
Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	-
Publishable summary for DOREMI website	The presentation of DOREMI at the internet festival was reported in the Italian web news channel Libero Quotidiano. The article explain the approach of DOREMI in promoting an Active Aging Lifestyle Protocol for the elderly, and in the use of wearable technologies to assess the progress of the elderly following the protocol.
Useful for exploitation (Yes/No)	yes

Partner		Activities
UNIPI	Event title	DOREMI/ Il braccialetto intelligente che aiuta gli anziani: come funziona?
		http://www.ilsussidiario.net/News/Hi-
		Tech/2014/10/7/DOREMI-II-braccialetto-intelligente-che-
	Website	aiuta-gli-anziani-come-funziona-/539513/
	Date (start-end)	07/10/2014



Location		-
Objective		-
Target audience		General audience
Participation (stand, sympos seminar, presentation, prelease, etc.)	oral	Press release: Il Sussidiario (web, local, Italy)
Participating partners		-
Report  (event descripted disseminating actions, present perception of im on participate comments, feedback, etc.)	ters'	-
Publishable summary DOREMI website	for	The presentation of DOREMI at the internet festival was reported in the Italian web news channel il Sussidiario. The article explain the approach of DOREMI in promoting an Active Aging Lifestyle Protocol for the elderly, and in the use of wearable technologies to assess the progress of the elderly following the protocol.
Useful exploitation (Yes/No)	for	yes

## **Publications**

Partner	Activities		
UNIPI	Article title	publication	Human Activity Recognition using Multisensor Data Fusion based on Reservoir Computing.



Authors	Palumbo F, Gallicchio C, Pucci R, Micheli A
Journal/magazine/bo ok title	Journal of Ambient Intelligence and Smart Environments, IOS Press
Field/sector	Computer science, artificial intelligence
Submission/acceptan ce date	Acceptance date: 22/4/2015
Web URL	http://jaise-journal.org/
Publication volume / issues/ day-month-year/ pages from-to	Accepted for publication, to appear.
Article description	Activity recognition plays a key role in providing activity assistance and care for users in smart homes. In this work, we present an activity recognition system that classifies in the near real-time a set of common daily activities exploiting both the data sampled by sensors embedded in a smartphone carried out by the user and the reciprocal Received Signal Strength (RSS)values coming from worn wireless sensor devices and from sensors deployed in the environment. In order to achieve an effective and responsive classification, a decision tree based on multisensor datastream is applied fusing data coming from embedded sensors on the smartphone and environmental sensors before processing the RSS stream. To this end, we model the RSS stream, obtained from a Wireless Sensor Network (WSN), using Recurrent Neural Networks (RNNs) implemented as efficient EchoState Networks (ESNs), within the Reservoir Computing (RC) paradigm. We targeted the system for the EvAAL scenario, ani nternational competition that aims at establishing benchmarks and evaluation metrics for comparing Ambient Assisted Living(AAL) solutions. In this paper, the performance of the proposed activity recognition system is assessed on a purposely collected real-world dataset, taking also into account a competitive neural network approach for performance comparison. Our results show that, with an appropriate configuration of the information fusion chain, the proposed system reaches a very good accuracy with a low deployment cost.



Target audience	Computer Scientists, multi-disciplinary smart environments communities
Participating partners	UNIPI, CNR-ISTI
Publishable summary for DOREMI website	Activity recognition plays a key role in providing activity assistance and care for users in smart homes. In this work, we present an activity recognition system that classifies in the near real-time a set of common daily activities exploiting both the data sampled by sensors embedded in a smartphone carried out by the user and the reciprocal Received Signal Strength (RSS)values coming from worn wireless sensor devices and from sensors deployed in the environment. In order to achieve an effective and responsive classification, a decision tree based on multisensor datastream is applied fusing data coming from embedded sensors on the smartphone and environmental sensors before processing the RSS stream. To this end, we model the RSS stream, obtained from a Wireless Sensor Network (WSN), using Recurrent Neural Networks (RNNs) implemented as efficient EchoState Networks (ESNs), within the Reservoir Computing (RC) paradigm. We targeted the system for the EvAAL scenario, an international competition that aims at establishing benchmarks and evaluation metrics for comparing Ambient Assisted Living(AAL) solutions. In this paper, the performance of the proposed activity recognition system is assessed on a purposely collected real-world dataset, taking also into account a competitive neural network approach for performance comparison. Our results show that, with an appropriate configuration of the information fusion chain, the proposed system reaches a very good accuracy with a low deployment cost.

Partner		Activities
UNIPI	Article publication title	Smart environments and context-awareness for lifestyle management in a healthy active ageing framework
	Authors	Davide Bacciu, Stefano Chessa, Claudio Gallicchio, Alessio Micheli, Erina Ferro, Luigi Fortunati, Filippo Palumbo,



	Oberdan Parodi, Federico Vozzi, Sten Hanke, Johannes Kropf, Karl Kreiner
Journal/magazine/bo ok title	To appear in a volume of LNAI-Lecture Notes in Artificial Intelligence series, Springer
Field/sector	Computer science, artificial intelligence
Submission/acceptan ce date	Submission: 9/3/2015; Acceptance date: 28/4/2015
Web URL	http://epia2015.dei.uc.pt/artificial-intelligence-in-medicine/
Publication volume / issues/ day-month-year/ pages from-to	Accepted for publication, to appear.
Article description	The article presents the design and architecture of the human activity recognition and reasoning system of DOREMI, as developed in WP4.
Target audience	Research, academia
Participating partners	UNIPI, CNR-IFC, CNR-ISTI, AIT
Publishable summary for DOREMI website	Health trends of elderly in Europe motivate the need for technological solutions aimed at preventing the main causes of morbidity and premature mortality. In this framework, we present the architecture of a system exploiting human activity recognition and reasoning to monitor the elderly and to empower them to follow a lifestyle protocol for active aging.

## 9.4. MYSPERA

Conferences, exhibitions, workshops, seminars

Partner	Activities	
MYSPHERA	Event title	19 <sup>th</sup> National Congress of Hospitals and Health Management
	Website	http://www.19congresohospitales.org/
	Date (start-end)	10/03/15 – 13/03/15



	Location	Elche and Alicante (Spain)
	Objective	Contact with stakeholders, networking
	Target audience	Hospital managers and service providers
	Participation type	Attendance
	(stand, symposium,	
	seminar, oral	
	presentation, press	
	release, etc.)	
	Participating	MSYPHERA
	partners	
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	The event was centered in the improvement of the efficiency of processes in public and private healthcare. There were conferences and networking time slots. MYSPHERA disseminated the DOREMI project and the first preliminary results. The first DOREMI newsletter was used as support material, to provide some physical report of the activities of DOREMI. The comments in general were positive, with prudence until see real results of the project. In general, the idea of expanding the independent living of elderly by dedicated systems at home is well accepted by healthcare providers as a part of a presales operation (this is, link the potential customers of nursing homes to the company in early stages).
	Publishable summary for DOREMI website	MYSPHERA representatives participated in the 19 <sup>th</sup> Congress in Hospitals and Healthcare management held on from 10/03/2015 to 13/03/2015 in the cities of Elche and Alicante. This congress, relevant at national context in Spain, gather more than 1500 healthcare and management professionals. The focus of the congress is the good use of resources in public and/or private healthcare, the innovations in the hospital technologies and new procedures and processes improvement. MYSPHERA explained the DOREMI project as an example of a new process helping to manage elderly homecare, exposing the expected results in DOREMI and using as support material the 1 <sup>st</sup> DOREMI newsletter.
	Useful for	Yes



exploitation
(Yes/No)

Partner	Activities		
MYSPHER A	Event title	eHealth Week	
	Website	hthttp://www.worldofhealthit.org/ehome/index.php?eventid=98290	
	<b>Date</b> (start-end)	11/05/15 – 13/05/15	
	Location	Riga (Latvia)	
	Objective	Exchange knowledge and share best practices in eHealth and IT healthcare representatives.	
	Target audience	IT healthcare innovators, startups, healthcare systems managers.	
	Participation	Stand	
	type (stand,		
	symposium,		
	seminar, oral		
	presentation,		
	press		
	release, etc.)		
	Participating	MSYPHERA	
	partners		
	Report		
	(event		
	description,		
	disseminatin		
	g actions,		
	presenters'		
	perception of		
	impact on		
	participants,		
	comments,		



feedbac etc.)	k,
Publisha summa DOREM website	ry for I
Useful f exploita (Yes/No	ition

Dorthor		
Partner		Activities
MYSPHERA	Event title	19 <sup>th</sup> National Congress of Hospitals and Health Management
	Website	http://www.19congresohospitales.org/
	Date (start-end)	10/03/15 – 13/03/15
	Location	Elche and Alicante
	Objective	Contact with stakeholders, networking
	Target audience	Hospital managers and service providers
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Attendance
	Participating partners	MSYPHERA
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments,	The event was centered in the improvement of the efficiency of processes in public and private healthcare. There were conferences and networking time slots. MYSPHERA disseminated the DOREMI project and the first preliminary results. The first DOREMI newsletter was used as support material, to provide some physical report of the activities of DOREMI. The comments in



	feedback, etc.)	general were positive, with prudence until see real
		results of the project. In general, the idea of expanding
		the independent living of elderly by dedicated systems
		at home is well accepted by healthcare providers as a
		part of a presales operation (this is, link the potential
		customers of nursing homes to the company in early
		stages).
		MYSPHERA representatives participated in the 19 <sup>th</sup>
		Congress in Hospitals and Healthcare management held
		on from 10/03/2015 to 13/03/2015 in the cities of Elche
		and Alicante. This congress, relevant at national context
		in Spain, gather more than 1500 healthcare and
	Publishable summary	management professionals. The focus of the congress is
	for DOREMI website	the good use of resources in public and/or private
		healthcare, the innovations in the hospital technologies
		and new procedures and processes improvement.
		MYSPHERA explained the DOREMI project as an example of a new process helping to manage elderly
		homecare, exposing the expected results in DOREMI and
		using as support material the 1 <sup>st</sup> DOREMI newsletter.
		asing as support material the 1 Bonzin newsletter.
	Useful for exploitation	Yes
	(Yes/No)	

## 9.5. **AIT**

No information available

## 9.6. EXTRACARE

## **Publications**

Partner	Activities	
EXTRACARE	Paper publication title	Press release
	Authors	Sandys R, Hall S
	Event (date and	June 2014 – Press release from ExtraCare and Accord.
	location) or	Entitled 'Midlands' organisation chosen to lead £3
	non-refereed	million European research project'
	journal title	



Field/sector	Local press and publicity
Submission/acceptance date	20/06/14
Web URL	
Publication volume / issues/ day- month-year/ pages from-to	N/A
Paper description	
Target audience	The Press, general public and our partners
Participating partners	ACCORD
Publishable summary for DOREMI website	This was a general press release for information to make partners and the public aware of this project and our involvement

Dortner		
Partner		Activities
EXTRACARE	Paper publication title	Press release
	Authors	Sandys R, Hall S
	Event (date and location) or non-refereed journal title	June 2014 – article in the Extralife magazine – an internal magazine for residents living within ExtraCare locations. this is a bi monthly magazine.
	Field/sector	Article in an internal magazine
	Submission/acceptance	June 2014
	date	
	Web URL	
	Publication volume / issues/ day- month-year/	June/July 2014



pages from- to	
Paper description	
Target audience	Residents who live in ExtraCare locations, and staff would read this too.
Participating partners	N/A
Publishable summary for DOREMI website	This was a general article on the project to let residents know of the work and our involvement

# 9.7. **IMA** *Conferences, exhibitions, workshops, seminars*

Partner		Activities
IMA	Event title	International Conference on Interactive Mobile Communication, Technologies and Learning
	Website	http://www.imcl-conference.org/imcl2014/
	Date (start-end)	November 13-14, 2014
	Location	Thessaloniki, Greece
	Objective	Know –how exchange of the scientific innovations
	Target audience	Academic and clinic people (about 100 persons)
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	keynote
	Participating partners	
	Report	Presentation at the Special Session
	(event description, disseminating actions,	Mobile Health Care and Training (MHCT).



nuncontous' nousention	Duncantation (some of our booth on the mayor)
presenters' perception	Presentation 'games for health on the move'
of impact on	
participants,	
comments, feedback,	
etc.)	
Publishable summary	What about inserting the <u>link</u> of the presentation?
for DOREMI website	
Useful for	NO
exploitation (Yes/No)	

Partner		Activities
IMA	Event title	SEGAMED 2014 – Serious Games en Médecine et Santé
	Website	http://segamed2014.fr-aim.org/
	Date (start-end)	December 04-06, 2014
	Location	Nice, France
	Objective	Know –how exchange of the scientific innovations
	Target audience	Hospital staff/therapists/researchers
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Stand
	Participating partners	
	Report	Cognitive games demo session
	(event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	



Publishable summary for DOREMI website	
Useful for exploitation (Yes/No)	YES

Partner		Activities
IMA	Event title	CeBIT 2015
	Website	http://www.cebit.de/home
	Date (start-end)	March 16-20, 2015
	Location	Hannover, Germany
	Objective	Know –how exchange of the scientific innovations
	Target audience	Academic and clinic people (about 350 persons)
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Presentation 'games for health'
	Participating partners	
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)  Publishable summary	Conference about New Perspectives in IT Business
	for DOREMI website  Useful for exploitation (Yes/No)	YES
	exploitation (Yes/NO)	



Partner		Activities
IMA	Event title	Rehab
	Website	http://www.rehab-karlsruhe.com/
	Date (start-end)	April-23-25, 2015
	Location	Karlsruhe - Germany
	Objective	Know –how exchange of the scientific innovations
	Target audience	Clinical therapists, hospital staff, associations staff (about 70 persons)
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Cognitive games demo – flyer distribution
	Participating partners	
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	Conference about: International Trade Fair for Rehabilitation, Therapy and Prevention
	Publishable summary for DOREMI website	http://www.slideshare.net/imaginary_italy/lifelong-health-games-47279989
	Useful for exploitation (Yes/No)	YES

Partner	Activities	
IMA	Event title	Regular web 2.0 activity
	Website	



Date (start-end)	
Location	
Objective	
Target audience	
Participation type	
(stand, symposium,	
seminar, oral	
presentation, press	
release, etc.)	
Participating partners	
Report	Twitter – facebook – <u>ima website</u>
пероп	Twitter racebook <u>mild website</u>
(event description,	TWITTER INCOME.
	TWICE I IGEODOR IIII WESSICE
(event description,	TWICE IGEODOR IIII WESSIC
(event description, disseminating actions,	TWICE IGEODOR MINI WESSIC
(event description, disseminating actions, presenters' perception of impact on participants,	Twitter ideedook mild website
(event description, disseminating actions, presenters' perception of impact on participants, comments, feedback,	Twitter ideedook mild website
(event description, disseminating actions, presenters' perception of impact on participants,	Twitter ideedook mild website
(event description, disseminating actions, presenters' perception of impact on participants, comments, feedback,	TWITTEE TOCCOOK INTO WESSITE
(event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	TWITTER TOCCOOK INTO WESSITE
(event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)  Publishable summary	TWITTER TOCCOOK INTO WESTER
(event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)  Publishable summary for DOREMI website	TWITTER TOCCOOK INTO WESTER

Partner	Activities	
IMA	Event title	I giochi che insegnano a vivere meglio
	Website	
	Date (start-end)	27/04/2015
	Location	All-over Italy
	Objective	Know –how exchange of the scientific



	innovations/exploitation
Target audience	Readers of the Italian newspaper II sole 24 ore (circulation 250.000)
Participation type	Paper in the 'Expo' special issue
(stand, symposium,	
seminar, oral	
presentation, press	
release, etc.)	
Participating partners	
Report	Description of the aims of the project and the use of games
(event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	to reach them
Publishable summary	Description of the aims of the project and the use of games
for DOREMI website	to reach them
Useful for	YES
<b>exploitation</b> (Yes/No)	

Partner	Activities	
IMA	Event title	IMA newsletter
	Website	
	Date (start-end)	February 2015
	Location	
	Objective	Know –how exchange of the scientific innovations/exploitation
	Target audience	Heterogeneous people (about 2700) interested in



	innovation and health issues
Participation type	Newsletter
(stand, symposium,	
seminar, oral	
presentation, press	
release, etc.)	
Participating partners	
Report	
(event description,	
disseminating actions,	
presenters' perception	
of impact on	
participants,	
comments, feedback,	
etc.)	
Publishable summary	
for DOREMI website	
Useful for	YES
exploitation (Yes/No)	

# 9.8. **DMU** *Conferences, exhibitions, workshops, seminars*

Partner	Activities	
DMU	Event title	Harnessing Digital Technology for Health Behavior Change (Conference)
	Website	http://www.ucl.ac.uk/behaviour-change/cbc-events/cbc-conference-2015
	Date (start-end)	23-24 February 2015
	Location	University College London, London, UK.
	Objective	A conference designed to bring together psychologists, practitioners and computer scientists to discuss the design



	and implementation of digital health interventions.
Target audience	Psychologists, computer scientists, health practitioners
Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Poster presentation
Participating partners	DMU, EXTRACARE, IMA
Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	The conference was a multi-disciplinary event with international speakers presenting work related to digital health interventions. Presentation and poster topics included gamification, usability, user engagement and wearable sensors. The poster presented gathered a lot of interest from industry and academia, particularly in terms of designing user-friendly behavior change systems for older people.
Publishable summary for DOREMI website	Designing a gamified system to promote health and wellbeing in older people  Background  Although gamified health interventions have the potential to enhance the quality of life of older users, there are significant design issues that need to be considered when designing games and gamified systems for an older target market.  Method  Target users were recruited to take part in an iterative user-centered design process to inform the development of an intervention for older people that can encourage better nutrition, increased physical activity, social participation and cognitive function using games and gamification. This process involves several cycles of: user testing; games prototype development and; evaluation and modification of prototypes. Stage one of this process was a focus group with 9 people (5 male; Mean age= 77.0, SD= 7.47) designed to elicit information on the needs, motivations and experience of



	older people in relation to games and gaming for health. The
	recording was transcribed and analyzed thematically.
	Results
	Participants reported playing puzzle games because they felt it improved their cognitive health but none of the participants used games for any other health purpose. Participants were
	receptive to the idea of receiving gamified rewards for completing real world health activities. A key motivator for engaging with games was social interaction but it was
	important to participants that their abilities were equally
	matched with those of their opponents. Participants reported that interacting with existing computing technology had
	become more difficult due to age related decrements in vision
	and dexterity.
	Discussion
	Participants were receptive games and gamified activities that stimulated social interactions and met their level of ability.
	The feedback and ideas generated by participants will be used to inform the development of prototype games and a
	gamified environment which will be user tested in stage two of the design cycle.
Useful for exploitation	
(Yes/No)	

# 9.9. AGE *Publications*

Partner	Activities	
AGE	Paper publication title	Newsletter
	Authors	Gheno I
	Event (date and location) or non-	AGEING WELL newsletter



refereed journal title	
Field/sector	ICT for active and healthy ageing
Submission/acceptance date	January 2014
Web URL	
Publication volume / issues/ day-month- year/ pages from-to	January issue
Paper description	
Target audience	Residents and housing providers
Participating partners	AGE
Publishable summary for DOREMI website	

Partner		Activities
AGE	Paper publication title	ePractice webiste
	Authors	Gheno I, Holmberg D.
	Event (date and	AGE platform
	location) or non-	
	refereed journal title	
	Field/sector	
	Submission/acceptance	
	date	
	Web URL	
	Publication volume /	
	issues/ day-	
	month-year/	
	pages from-	



to	
Paper description	
Target audience	Residents and housing providers
Participating partners	AGE
Publishable summary for DOREMI website	

Partner		Activities
AGE	Event title	INNOVAGE project meeting
	Website	http://www.innovage-project.eu/
	Date (start-end)	January 31, 2014
	Location	London, UK
	Objective	Project presentation for potential collaboration
	Target audience	Stakeholders and companies
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	PPT Presentation to the Innovage Consortium
	Participating partners	AGE
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	AGE presented the DOREMI project activities to the partners of INNOVAGE project.



Publishable summary	AGE presented the DOREMI project activities to t
for DOREMI website	partners of INNOVAGE project.
Useful for exploitation	YES
(Yes/No)	

Partner		Activities
AGE	Event title	B-DEBATE
	Website	http://www.bdebate.org/en/forum/impact-ageing-mental-health-and-well-being
	Date (start-end)	January 29-30, 2014
	Location	Barcelona, Spain
	Objective	Project presentation for potential collaborations
	Target audience	Health professionals, influential thinkers, researchers and stakeholders (users, policy makers and industry experts).
	Participation type	Oral presentation and brochures
	(stand, symposium,	
	seminar, oral	
	presentation, press	
	release, etc.)	
	Participating partners	AGE
	Report	AGE presented the DOREMI project activities to health
	(event description, disseminating actions, presenters' perception of impact on	professionals, researchers and stakeholders
	participants, comments, feedback, etc.)	
	Publishable summary for DOREMI website	AGE presented the DOREMI project activities to health professionals, researchers and stakeholders
	Useful for exploitation	YES



(Yes/No)	

Partner		Activities
AGE	Event title	AGE Council of Administration
	Website	n/a
	Date (start-end)	March 28-29, 2014
	Location	Brussels, Belgium
	Objective	Project presentation for potential collaboration
	Target audience	Older people's representatives (AGE members)
	Participation type	Oral presentation and brochures
	(stand, symposium,	
	seminar, oral	
	presentation, press	
	release, etc.)	
	Participating partners	AGE
	Report	AGE presented the DOREMI project activities to older
	(event description,	people's representatives.
	disseminating actions,	
	presenters' perception	
	of impact on	
	participants,	
	comments, feedback,	
	etc.)	
	Publishable summary	AGE presented the DOREMI project activities to older
	for DOREMI website	people's representatives.
	Useful for exploitation	NO
	(Yes/No)	

Partner	Activities



AGE	Event title	HAIVISIO Training
	Website	http://haivisio.eu/training-course/
	Date (start-end)	May 14, 2014
	Location	Athens, Greece
	Objective	Help projects to significantly enhance visibility and awareness on their results, through the organization of events and training courses and the facilitation of an online community and collaboration environment.
	Target audience	Communication professionals, industry, researchers
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Oral presentation and brochures
	Participating partners	AGE
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	AGE presented the DOREMI project activities to communication professionals, industry representatives and researchers active in eHealth.
	Publishable summary for DOREMI website	AGE presented the DOREMI project activities to communication professionals, industry representatives and researchers active in eHealth.
	Useful for exploitation (Yes/No)	YES

Partner	Activities	
AGE	Event title	EXPAND Workshop



Website	http://www.expandproject.eu/
Date (start-end)	May 15, 2014
Location	Athens, Greece
Objective	Project presentation for potential collaborations
Target audience	Researchers, industry representatives and stakeholders active in the field of eHealth
Participation type	Oral presentation and brochures
(stand, symposium,	
seminar, oral	
presentation, press	
release, etc.)	
Participating partners	AGE
Report	AGE presented the DOREMI project activities to
(event description,	communication professionals and researchers
disseminating actions,	
presenters' perception	
of impact on	
participants,	
comments, feedback,	
etc.)	
Publishable summary	AGE presented the DOREMI project activities to
for DOREMI website	communication professionals and researchers
Useful for exploitation	YES
(Yes/No)	

Partner	Activities		
AGE	Event title "Get up and Go: Is sitting so bad for older people?" Webinar		
	Website	http://www.gcu.ac.uk/hls/newsevents/events/article.php?id=93313	
	Date (start-end)	August 27 2014	
	Location	Web	



Objective	Project presentation for potential collaborations
Target audience	Communication professionals, researchers and stakeholders in the
raiget dadiente	area of sedentariness
Participation	Oral presentation
type (stand,	
symposium,	
seminar, oral	
presentation,	
press release,	
etc.)	
Participating	AGE
partners	
Report	AGE presented the DOREMI project activities to communication
/ I	professionals, researchers and stakeholders in the area of
(event	sedentariness.
description,	
disseminating actions,	
presenters'	
perception of	
impact on	
participants,	
comments,	
feedback, etc.)	
	700/ of older adults sit for more than 9.5 hours doily. The 2011 LIV
	70% of older adults sit for more than 8.5 hours daily. The 2011 UK Chief Medical Officer guidelines on physical activity for health in ALL
	age groups recommend reducing the amount of time we spend
	sitting. Prolonged sitting is the new public health challenge. Find out
Publishable	more about how prolonged sedentary behavior poses an important
summary for	health risk (a bigger waist, depression and social isolation, even an
DOREMI website	increased risk of death). Learn more about the Medical Research
	Council Lifelong Health and Wellbeing study 'Seniors USP', that aims
	to further understand the determinants of sedentary behavior in
	older people.
Useful for	YES
exploitation	
(Yes/No)	



Partner	Activities		
AGE	Event title	EU Marketplace for eHealth & EIP on Active and Healthy Ageing	
	Website	https://www.b2match.eu/eu-marketplace-brussels2014/	
	Date (start-end)	September 22, 2014	
	Location	Brussels, Belgium	
	Objective	Project presentation for potential collaborations	
	Target audience	EIP action groups, reference sites, connected health ecosystems, SMEs, innovators, public officials, patient groups, academics, entrepreneurs & buyers.	
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Oral presentation	
	Participating partners	AGE	
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	AGE presented the DOREMI project activities to health professionals, researchers and stakeholders interested in active ageing and the silver economy.	
	Publishable summary for DOREMI website	AGE presented the DOREMI project activities to health professionals, researchers and stakeholders interested in active ageing and the silver economy.	
	Useful for exploitation (Yes/No)	YES	



Partner	Activities	
AGE	Event title	AAL Side event at European Open Days "Why investing in ICT for ageing? A regional perspective"
	Website	https://www.eventbrite.co.uk/e/opendays-2014-the-aal-programme-why-investing-in-ict-for-ageing-a-regional-perspective-tickets-12718725049
	Date (start-end)	October 8, 2014
	Location	Brussels, Belgium
	Objective	Project presentation for potential collaborations
	Target audience	Representatives of local and regional authorities and ICT industry representatives
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Oral presentation and brochures
	Participating partners	AGE
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	This event wants to connect regional strategies on social inclusion, boosting innovation and creativity in ways to promote and keep the well-being of an ageing society. AGE presented the DOREMI project activities to health professionals, researchers and stakeholders interested in active ageing and the silver economy.
	Publishable summary for DOREMI website	This event wants to connect regional strategies on social inclusion, boosting innovation and creativity in ways to promote and keep the well being of an ageing society.
	Useful for exploitation (Yes/No)	YES



Partner	Activities		
AGE	Event title	European Open Days, "Paving the way for eHealth, active ageing and independent living products and services generated by European Research & Innovation projects"	
	Website	https://www.eventbrite.co.uk/e/opendays-2014-the-aal-programme-why-investing-in-ict-for-ageing-a-regional-perspective-tickets-12718725049	
	Date (start-end)	October 9, 2014	
	Location	Brussels, Belgium	
	Objective	Project presentation for potential collaborations	
	Target audience	EU, national, regional and local policy/decision makers, authorities managing and evaluating cohesion policy programs and projects, other stakeholders: private companies, financial institutions, European and national associations, academics, students and researchers	
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Oral presentation and brochures	
	Participating partners	AGE	
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	This workshop gave the opportunity to learn about products and services generated by European research projects; to set common strategies for dissemination and exploitation activities; to facilitate collaboration environments. AGE presented the DOREMI project activities to health professionals, researchers, industry representatives and stakeholders interested in active and healthy ageing.	
	Publishable summary for DOREMI website	This workshop gave the opportunity to learn about products and services generated by European research projects; to set common strategies for dissemination and exploitation activities; to facilitate collaboration	



	environments.
Useful for exploitation	YES
(Yes/No)	

Partne	Activities		
r			
AGE	Event title	AGEING WEALTH Conference	
	Website	http://www.democentersipe.it/?option=com_content&view=article&id=3 81:ageing-wealth-convention&catid=35:eventi&Itemid=76⟨=en	
	Date (start- end)	October 16-17, 2014	
	Location	Mirandola (MO), Italy	
	Objective	Project presentation for potential collaborations	
	Target audience	private industries, research institutions and funding policies	
	Participatio n type (stand, symposium, seminar, oral presentatio n, press release, etc.)	Oral presentation and brochures	
	Participatin g partners	AGE	
	Report  (event description, disseminati ng actions, presenters'	AGE presented DOREMI at the Ageing Wealth Conference organized with the aim to promote health theme through European dialogue between private industries, research institutions and funding policies, with a particular focus on most common illnesses and chronic diseases management.	



Useful for exploitatio n (Yes/No)	YES
Publishable summary for DOREMI website	AGE presented DOREMI at the Ageing Wealth Conference organized with the aim to promote health theme through European dialogue between private industries, research institutions and funding policies, with a particular focus on most common illnesses and chronic diseases management.
perception of impact on participants , comments, feedback, etc.)	

Partner	Activities		
AGE	Event title	eHealth: Independence and Inclusion in the 21st century	
	Website	http://www.aer.eu/events/healthsocial/2014/ehealth-independence-and-inclusion-in-the-21st-century.html	
	Date (start-end)	October 21-23, 2014	
	Location	Donegal, Ireland	
	Objective	Project presentation for potential collaborations	
	Target audience	European regions, eHealth industry, researchers	
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Seminar	
	Participating partners	AGE	
	Report	AGE presented the DOREMI project activities to health	



(event description, disseminating actions,	professionals, representatives from local and regional authorities, researchers, industry representatives and
presenters' perception	stakeholders interested in active and healthy ageing.
of impact on	
participants,	
comments, feedback,	
etc.)	
	ACE presented the DODENII present activities to health
	AGE presented the DOREMI project activities to health
Publishable summary	professionals, representatives from local and regional
for DOREMI website	authorities, researchers, industry representatives and
	stakeholders interested in active and healthy ageing.
Useful for exploitation	NO
(Yes/No)	

Partner	Activities	
AGE	Event title	INTERREG i-Age Final conference
	Website	http://www.iageproject.eu/diverse-onderdelen/losse-pagina'/iage-final/
	Date (start-end)	November 20, 2014
	Location	Assen, Holland
	Objective	Project presentation for potential collaborations
	Target audience	national, regional and local policy/decision makers, research institutions
	Participation type	Oral presentation and brochures
	(stand, symposium,	
	seminar, oral	
	presentation, press	
	release, etc.)	
	Participating partners	AGE
	Report	AGE presented the DOREMI project activities to political
	(event description, disseminating actions,	representatives, partners and experts from the North Sea Region interested in increasing economic and social



presenters' perception of impact on participants, comments, feedback, etc.)	e-inclusion.
Publishable summary for DOREMI website	AGE presented the DOREMI project activities to political representatives, partners and experts from the North Sea Region interested in increasing economic and social e-inclusion.
Useful for exploitation (Yes/No)	NO

Partner		Activities
AGE	Event title	ENGAGED Conference - EHTEL symposium
	Website	http://www.ehtel.eu/activities/ehtel-symposium/ehtel- 2014-symposium
	Date (start-end)	November 25-26, 2014
	Location	Brussels, Belgium
	Objective	Project presentation for potential collaborations
	Target audience	health policy leaders, strategic EU projects and initiatives, NGOs, industrialists
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Brochures
	Participating partners	AGE
	Report  (event description, disseminating actions, presenters' perception of impact on	AGE disseminated DOREMI brochures to health policy leaders, strategic EU projects and initiatives, NGOs and industry representatives.



participants, comments, feedback, etc.)	
Publishable summary for DOREMI website	AGE disseminated DOREMI brochures to health policy leaders, strategic EU projects and initiatives, NGOs and industry representatives.
Useful for exploitation (Yes/No)	YES

Partner		Activities
AGE	Event title	AGE Annual Conference
	Website	http://www.age-platform.eu/age-work/age-policy-work/age-friendly-environments/age-work/2300-age-annual-conference-4-december-2014-brussels
	Date (start-end)	December 4, 2014
	Location	Brussels
	Objective	Project presentation for potential collaboration
	Target audience	Older people's representatives, external stakeholders from EU institutions, academics, social NGOs, industry representatives
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Oral presentation and brochures
	Participating partners	AGE
	Report  (event description, disseminating actions, presenters' perception of impact on participants,	AGE presented the DOREMI project activities to external stakeholders from EU institutions, academics, social NGOs, industry representatives.



comments, feedback, etc.)	
Publishable summary for DOREMI website	AGE presented the DOREMI project activities to external stakeholders from EU institutions, academics, social NGOs, industry representatives.
Useful for exploitation (Yes/No)	NO

Partner		Activities
AGE	Event title	Measuring the specific socio-economic Benefits of a locally connected Gigabit-Society
	Website	http://www.ssnf.org/puffar-pa-forsta- sidan/Stadsnatsforeningen-anordnar-workshop-i-EU/
	Date (start-end)	January 20, 2015
	Location	Brussels
	Objective	
	Target audience	external stakeholders from EU institutions, researchers, social NGOs, industry representatives
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Oral presentation and brochures
	Participating partners	AGE
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback,	AGE presented the DOREMI project activities to external stakeholders from EU institutions, academics, social NGOs, industry representatives.



etc.)	
Publishable summary for DOREMI website	AGE presented the DOREMI project activities to external stakeholders from EU institutions, academics, social NGOs, industry representatives.
Useful for exploitation (Yes/No)	YES

Partner		Activities
AGE	Event title	DG RTD Public Health Research Workshop
	Website	http://www.irohla.eu/news/article/5-health-literacy-and-self-management-projects-invited-to-ec-workshop/
	Date (start-end)	January 27, 2015
	Location	Brussels
	Objective	Discuss strategies and studies to improve the capacities of the individual with a chronic health condition as well as community support for people with chronic health conditions.
	Target audience	Policy makers from DG Research, DG Employment and DG Health and Consumers, researchers and social NGOs
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Oral presentation and brochures
	Participating partners	AGE
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	AGE presented the DOREMI project activities to policy makers from DG Research, DG Employment and DG Health and Consumers, researchers and social NGOs.
	Publishable summary	Researchers and policy-makers will discuss strategies and studies to improve the capacities of the individual with a



for DOREMI website	chronic health condition as well as community support for people with chronic health conditions.
Useful for exploitation (Yes/No)	NO

Partner		Activities
AGE	Event title	Policy debate on health literacy hosted by MEP Heinz Becker at the EP
	Website	http://www.irohla.eu/news/article/policy-dialogue-on-health-literacy-at-the-european-parliament/
	Date (start-end)	January 28, 2015
	Location	Brussels
	Objective	Discuss the importance of health literacy, the work on healthy ageing in general and also an update on what the European Commission is doing on these topics.
	Target audience	Members of the European Parliament, policy advisers and decision makers as well as other important stakeholders
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Brochures
	Participating partners	AGE
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	AGE presented the DOREMI project activities to external stakeholders from EU institutions, researchers, social NGOs, industry representatives.



Publishable summary for DOREMI website	Discussions with Members of the European Parliament, policy advisers and decision makers as well as other important stakeholders in order to figure out what gaps there are that need to be closed and how policy guidelines can be developed and implemented so that older populations' health literacy needs can be met in the best way possible.
Useful for exploitation (Yes/No)	NO

Partner		Activities
AGE	Event title	JAMToday Fair 2015, Brussels
	Website	http://www.jamtoday.eu/jamtoday-fair/
	Date (start-end)	February 11, 2015
	Location	Brussels
	Objective	
	Target audience	creative clusters, game companies, education and research institutes, public sector institutions, municipalities
	Participation type (stand, symposium, seminar, oral presentation, press release, etc.)	Brochures
	Participating partners	AGE
	Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback,	AGE presented the DOREMI project activities to creative clusters, game companies, education and research institutes, public sector institutions, municipalities.



Publishable summary for DOREMI website  Pair helps then to discover new ways of games and gives them opportunities to and interesting prototypes made at on JamToday Game Jams.	mes or finding in learning ingful ways. The making applied play surprising
Useful for exploitation (YES (Yes/No)	

Partner		Activities
AGE	Event title	European Summit for Innovation for Active and Healthy Ageing
	Website	http://ec.europa.eu/research/innovation- union/index_en.cfm?section=active-healthy- ageing&pg=2015-summit-agenda#Day_1
	Date (start-end)	March 9-10, 2015
	Location	Brussels
	Objective	The event will bring together EU representatives across several portfolios, business leaders, national and regional authorities, leading global innovators and media to discuss innovation for active and healthy ageing. The Summit will also have a dedicated exhibition area to showcase the achievements of the EIP on AHA and other related research and innovation projects.
	Target audience	stakeholders from EU institutions, business leaders, national and regional authorities, leading global innovators and media
	Participation type (stand, symposium, seminar, oral presentation, press	Oral presentation and brochures



release, etc.)	
Participating partners	AGE, CNR IFC
Report  (event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	AGE presented the DOREMI project activities to stakeholders from EU institutions, business leaders, national and regional authorities, leading global innovators and media.
Publishable summary for DOREMI website	The event will bring together EU representatives across several portfolios, business leaders, national and regional authorities, leading global innovators and media to discuss innovation for active and healthy ageing. The Summit will also have a dedicated exhibition area to showcase the achievements of the EIP on AHA and other related research and innovation projects.
Useful for exploitation (Yes/No)	YES

Partner	Activities	
AGE	Event title	AAL2Business – Consortium Building Workshop
	Website	
	Date (start-end)	March 11, 2015
	Location	Brussels
	Objective	help AAL projects to enter the market
	Target audience	Researchers, service providers
	Participation type	Oral presentation and brochures
	(stand, symposium,	
	seminar, oral	
	presentation, press	



release, etc.)	
Participating partners	AGE
Report	AGE presented the DOREMI project activities.
(event description, disseminating actions, presenters' perception of impact on participants, comments, feedback, etc.)	
Publishable summary for DOREMI website	One of its main objectives is to help companies in their business development and commercialization challenges related to solutions developed under AAL projects and offers a wide variety of support actions addressing AAL JP projects in different stages of their lifecycle: before obtaining the funding, during the implementation and after the end of the projects
Useful for exploitation (Yes/No)	YES
(103/110)	

Partner		Activities
AGE	Event title	AGE Council of Administration
	Website	n/a
	Date (start-end)	March 26-27, 2015
	Location	Brussels, Belgium
	Objective	Project presentation for potential collaboration
	Target audience	Older people's representatives (AGE members)
	Participation type	Oral presentation and brochures
	(stand, symposium,	
	seminar, oral	
	presentation, press	



r	release, etc.)	
1	Participating partners	AGE
I	Report	AGE presented the DOREMI project activities to older people's representatives.
	(event description,	list in the second seco
	disseminating actions,	
	presenters' perception	
	of impact on	
	participants,	
	comments, feedback,	
	etc.)	
	Publishable summary	AGE presented the DOREMI project activities to older
1	for DOREMI website	people's representatives.
<del> </del>	Haaful fan armiaitatian	NO
	Useful for exploitation	NO
	(Yes/No)	

## 9.10. **SI4LIFE**

## **Publications**

Partner		Activities
SI4LIFE	Article publication title	Gamified cognitive training to prevent cognitive decline
	Authors	Musian D, Ascolese A, Kucharczyk E
	Journal/magazine/book title	Novak D, Tulu B & Brendryen H Holistic Perspective in Gamification for Clinical Practice
	Field/sector	Gamified cognitive training
	Submission/acceptance date	Under review
	Web URL	
	Publication volume / issues/ day-month-year/ pages from-to	
	Article description	Due to the ageing population, cognitive decline is



becoming a widespread problem that requires immediate and preventive intervention to avoid the transition to dementia and the associated consequences for the individual and for society. For these reasons, strategies and interventions to prevent and reduce progressive decline have attracted increasing attention in scientific community and wide population. Computer based cognitive training has been widely used and tested to maintain and improve the cognitive performance of older people engaging users in serious games. Typically, cognitive training packages also utilise gamification techniques to increase engagement. Although gamification can be a powerful motivator for people completing cognitive training, it could overwhelming for people with cognitive impairments if designed poorly. The DOREMI project aims to design cognitive training games for older people with cognitive impairment, using a user-centered design process to ensure that the gamification tools used to motivate participation are effective, meaningful, and user-friendly. Clinical experts **Target audience** IMA, DMU **Participating partners Publishable summary for DOREMI** website

Partn	Activities
er	



SI4LIF E	Event title	"La ricerca che crea innovazione per un futuro sostenibile"
L	Website	http://www.ticass.it/index.php?option=com_docman&task=cat_view&gid=1 61&Itemid=44⟨=it
	Date (start-end)	20/02/2015
	Location	Palazzo Ducale, Genova
	Objective	Disseminate, transfer and enhance research and technology transfer with particular attention to sustainable development and quality of Life.
	Target audience	Policy Makers, End users and Research and Innovation clusters.
	Participati	Conference
	on type (stand, symposiu m, seminar, oral presentati on, press release, etc.)	Poster : DOREMI "Decrease of cOgnitive decline, malnutRition and sedEntariness by elderly empowerment in lifestyle Management and social Inclusion"
	Participati	SI4LIFE SI4LIFE
	ng partners	
	Report  (event descriptio n, dissemina ting actions, presenters , perceptio n of	"Three years of commitment to research and technology transfer in Liguria. Many people, companies, university institutions, institutions have participated in the work referred TICASS has promoted. Have been analyzed the results, to discuss the effectiveness of the actions and design the future of research at the regional level, in the context of the national framework and on the new European just begun. The meeting was also an opportunity for a discussion and an exchange active and constructive on the state of research and innovation for the benefit of our businesses and the future of our society and sustainable as possible, on the internationalization and enhancement of research and represents the first stage of a journey that the ICE is building together with Innovation Poles Italian. The meeting also gave



impact on	space to reflect on the knowledge and prevention of health risks. "
participan	
ts,	
comments	
,	
feedback,	
etc.)	
-	
Publishabl	[include summary/abstract of event]
е	
summary	
for	
DOREMI	
website	
Useful for	YES
exploitati	
on	
(Yes/No)	

## 9.11. ACCORD

## **Publications**

Partner	Activities		
ACCORD	Paper publication title	Press release	
	Authors	Dutton R	
	Event (date and	June 2014 – Press release from ExtraCare and Accord.	
	location) or	Entitled 'Midlands' organization chosen to lead £3	
	non-refereed	million European research project'	
	journal title		
	Field/sector	Local press and publicity	
	Submission/acceptance	20/06/14	
	date		
	Web URL		
	Publication volume /	N/A	



	issues/ day- month-year/ pages from-to	
	Paper description	
	Target audience	The Press, general public and our partners
	Participating partners	EXTRACARE
	Publishable summary for DOREMI website	This was a general press release for information to make partners and the public aware of this project and our involvement



## 10.DOREMI synergies with other initiatives

Creating synergies by engaging other initiatives that work on similar topics is an important part of the dissemination of DOREMI results. The synergy-creating opportunities that the Dissemination Board has already been identified are listed below. All partners are welcome to add more opportunities to the list that will be updated by the Dissemination Board every three months.

- Membership Action Group A3 (already in place, CNR-IFC);
- Collaboration within EIP-AHA (already active for AGE and UOC);
- DOREMI and PERSSILAA: to be planned among project coordinators (CNR-IFC);
- DOREMI and NU-AGE: already planned (dietary pyramid in older and biomarkers) (CNR-IFC);
- DOREMI will provide data to the DEDIPAC project JPI (agreement with coordinator University of Limerick) on determinants of dietary, physical activity and sedentary behaviors in vulnerable groups (CNR-IFC).

## 11.DOREMI newsletter plan for 2015

Three newsletters will be issued in 2015 by partner AGE in May, September, and December. The newsletters will include information on the main project achievements and other highlights derived from the information provided by the project partners. The first DOREMI newsletter (October 2014), already published, is enclosed to the present deliverable as Anne.

## 12.DOREMI short video for 2015

Another important dissemination initiative to engage the DOREMI stakeholder community is the publication of a short video of the DOREMI concept and results.

AGE will be the responsible partner for coordinating the production of the short video, whose suggested contents are:

- An interview with the coordinator describing the project.
- Explanation of some of the DOREMI products with graphics, mock-ups and sketches, e.g. examples of the bracelets, the smart carpet and the games.
- Short presentation of the partners.
- Short presentation of the project by use case set in the pilot site (Extracare; July 2015).



## **13. ANNEX**

**DOREMI NEWSLETTER** 





Oct 2014

# DOREMI studies early signs of unhealthy dietary habits, sedentariness and cognitive decline

Welcome to the first newsletter from FP7 project DOREM!! Unhealthy dietary habits, sedentariness and cognitive decline are the three main causes of disease and premature death. In this project, we are studying early warning signs of malnutrition as well as physical and cognitive deterioration and are looking at possible solutions to improve older people's quality of life.

### Monitoring lifestyle changes

A group of older participants taking part in a pilot study in Italy and in the UK will be introduced to food intake measurements, personalised metabolic control, exergames (video games that are also a form of physical exercise), social interaction stimulation and cognitive training programmes.

By recording and monitoring information about the use of the lifestyle-changing tools and programmes, it will be possible to track user performance over long periods, providing early warning of signs of malnutrition, physical and cognitive deterioration.

## Designing products to prolong older people's functional and cognitive capacity

The collected data will be used by the project members to develop different products, which can prolong older people's functional and cognitive capacity by empowering, stimulating and subtly monitoring their daily activities.

We hope you will enjoy reading about the progress of our project.

### Contents in this newsletter

DOREMI studies early signs of malnutrition, sedentariness and cognitive decline

page 1

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## Game-based active ageing

DOREMI is designing and developing a game-based active ageing environment, following all the data collected with the users, during the so-called 'participatory design' and starting from the clinical protocols. This gamified virtual environment will include cognitive games, exergames and a social section. Cognitive games are designed to help people to train and improve cognition. They involve guided repetitive practice on a set of tasks which have been designed to reflect particular cognitive functions such as memory, visuo-spatial skills, attention, language and executive functioning.

Furthermore, the gamified system includes motivational mechanism to perform physical exercises and social activities, both at home and outside. At present some cognitive games about 'short-term memory' were already developed and are being tested by the users. Results will be reported in the next newsletter.

In order to design and develop effective tools that will be easily adopted and accepted by the target users, DOREMI adopted a user-centered design approach with the aim to investigate their needs and expectations together with barriers to adoption. Different focus groups in Italy and UK were conducted and are planned in the near future. The aim of these activities is to analyse users' characteristics to make explicit for the design team the set of assumptions about the user population when creating the virtual environment and its interface.



Project partner Imaginary is designing and developing a game-based active ageing environment.

## Wireless sensor network environment

The main mission of work package 3 is to gather reliable, configurable and adaptive information from the users and their environment by measuring health parameters and home activity. The system to do this, the DOREMI wireless sensor network (WSN), consists on a set of custom devices specifically tailored to fit with the DOREMI lifestyle protocol requirements and a set of commercially available devices to complete the data with home environment information.

KPI type	KPI	Sensor	Device
Clinical	Weight	Weight scale	Weight scale
	Impedimetric	Body impedance	BIA device
	analysis	assess	
	Physical activity	Balance board	Balance board
		Accelerometer	
		Indoor location	DOREMI custom
	Cardiovascular	Heart rate sensor	wristband
	assessment		
Social	Estimation of social	Presence sensor	PIR sensor
	interaction	Open/close sensor	Door reed sensor
		Pressure sensor	Mat pressure sensor
		Microphone	Conventional
			microphone

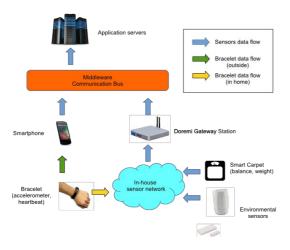
Key performance indicators (KPIs) identified in the active ageing lifestyle protocol

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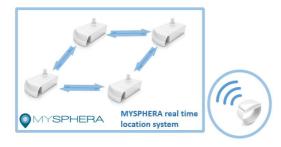
One of the project's first deliverables, the active ageing lifestyle protocol, was a starting point for the final definition of all the data sets required for the WSN. The set of devices present in the WSN have been defined from the relevant key performance indicators (KPIs) identified in the active ageing lifestyle protocol.

Since the DOREMI protocol requires the continuous acquisition of information from the user, the WSN have to deal with two different scenarios: indoor (when the user is at home) and outdoor (when user leaves home and only carries the wearable wristband). The DOREMI WSN architecture has been designed in conformance to the previously described requirements.



## Network and custom devices

The DOREMI WSN for the indoor scenario has been developed starting from the existing and commercially available Real Time Location System (RTLS) of MYSPHERA. The system has been fully migrated to Bluetooth Low Energy (BLE) for its promising market perspectives in the near future.



The DOREMI custom wristband is based on the commercial wristband of MYSPHERA RTLS. This wearable will perform the operations for the RTLS and also will integrate an accelerometer for physical activity assessment and a heart rate measurement system.

A preliminary version of DOREMI custom wristband will be ready by April of 2015, when it will be tested by real users in Living Labs. After this first trial, the final version will be released in October of 2015.

#### Balance board

The first tests on this development have been performed with Wii Balance Board, a commercially available device with a reasonable price (about 55€) and good features for the project objectives, this board works with Bluetooth classic.

## **Environmental sensors**

As part of the analysis of the DOREMI Lifestyle protocol, some commercial devices have been selected. The choice has been based on compliance with the DOREMI WSN and protocol requirements, affordability, and market availability. The devices to be installed will be based on Z-Wave wireless technology, which completely fits with the requisites.

#### Middleware and auto-configuration tool

All the information gathered must be adapted and processed in order to provide useful data to the rest of the high-level DOREMI modules (activity recognition, social and cognitive games). This is done by the middleware layer, which provides software-level integration among the different wireless technologies and an abstract data access layer for sensor-focused applications. Additionally, a configuration tool will be provided, in order to make it easier install and calibrate the system in a pilot phase.

A first version of middleware, named SensorWeaver 1.0 has been released with basic features. It is expected a second revision (SensorWeaver 2.0) and an integrated configuration tool to be launched in the next year of the project.



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# Supporting decisions in DOREMI: understanding the user progress and needs



In a usual day, the DOREMI user follows the active aging lifestyle protocol, which consists of keeping a prescribed diet and running physical and cognitive exercises under the constant and discrete monitoring by the DOREMI sensors. The user wears the DOREMI bracelet that measures steps, heart rate and temperature, while other sensors installed in the home measure weight and equilibrium (the intelligent carpet), the user position (localization subsystem) and the presence of visitors in the home.

## Sensors assess daily progress

The information obtained from these sensors is used by DOREMI to assess the daily progress of the user, and to adapt the active aging lifestyle protocol accordingly, or to identify early any strong deviation that may require the intervention of doctors. At a first glance, the assessment of the user progress may appear quite simple and straightforward. Indeed, if performed by a human observer, this is often the case. However, DOREMI performs this task automatically, by analyzing only simple user parameters (such as the acceleration sensed by the bracelet, the user temperature and heart rate, movements, etc.).

Finding a link between these simple parameters and the user activities and performance (among researchers it is known as activity recognition), and taking decisions about the possible changes of the prescriptions (also called reasoning) is the role of the Work package 4 (WP4) of the project. The main workforce of this Work package involves researchers of the University of Pisa, the Institute of Science and Technologies of the Italian Research Council, and the Austrian Institute of Technology.

## Activity recognition and reasoning

Recognizing or evaluating user activities based on data sequences produced by simple sensors, which are loosely coupled with the activities performed by the user, is not easy to achieve. Making a parallel with the sports, it is like playing tennis by sensing the ball only with the ears and with the eyes covered by a bandage. Still keeping this parallel with tennis, the reasoning takes decisions about which shot to play and how.

The approach to activity recognition of DOREMI is two-fold. In a first step, the researchers analyze the sensor data sequences obtained in a number of test cases by an explorative approach. With this approach, they try to understand the nature of the data and to find some features that may help in linking them to the user activities. The result of this work is the definition of rules and filters to be applied to the raw sensed data. In the second step, the sensed data are analyzed by using machine learning technologies, which move from the original biological inspiration to the state-of-the-art computational learning approaches in the fields of artificial neural networks. As a data-driven approach, artificial neural networks need first to be trained by observing a number of examples of the activities to recognize/evaluate, and only then, they can recognize the activity/performance of the user in the real life. In order to realize this, a relevant activity of DOREMI is to produce a large set of annotated data sequences obtained during real activities of the users, allowing the proper training of neural networks.

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Finally, the information produced by the neural networks is used by the reasoning component, which embeds medical knowledge, to take decisions and to drive the reactions of DOREMI to the measured performance of the user.

## Achievements during the first year

Although most of the effort in the first year of the project was devoted to the definition of the active aging lifestyle protocol and to the selection of the sensors, the WP 4 has already made significant progress. Specifically, it identified the requirements for the activity recognition and reasoning components and it defined the workflow of these components in the DOREMI system.

However, the most important achievements have been the definition of the format of the sensor data and the definition of user-specific activities and performance parameters to be monitored.

In cooperation with other work packages, WP4 also began the design of the intelligent carpet for the measurement of the user equilibrium. This also included the collection of a preliminary data set from the carpet prototype to perform a first explorative training of the associated neural network.

#### Upcoming events

- **Ageing Wealth Conference** 16-17 October, Modena, Italy
- E-health: Independence and Inclusion in the 21-23 October, Donegal, Ireland
- Launch of the Ageing Well in Wales **Programme** 22 October, Cardiff, UK
- Special Track on Mobile Health Care and Training 13-14 November. Thessaloniki, Greece

#### Subscribe to this newsletter

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