

AAL-2016-023



# **ANNUAL PROGRESS REPORT**

Please send this report <u>ELECTRONICALLY</u> to the Central Management Unit (CMU) as well as a copy to the National Contact Persons (NCPs) of the coordinator and project partners

The coordinator of the project must submit this report within 60 calendar days after the end of each calendar year, on behalf of the consortium.

If you have any additional question, please contact the AAL CMU at <u>CMU@aal-europe.eu</u>, or your NCP (see details on <u>www.aal-europe.eu/aal-ncp</u>)

Report date	26/02/2018
Reported period	This report covers the period from 02/2017 to 30/01/2018
Report No.	1



AAL AAL Joint Programme – 12-months progress & financial report

	PROJECT				
Project full title	Get Ready For Activity – Persuasive Ambiences				
Project acronym	GREAT				
Project No.	AAL-2016-023				
Project Website	http://great.labs.fhv.at/				
Project duration	•Starting date: 01/02/2017 •Termination date: 30/01/2020				
Coordinator's name and details	Full name: University of Applied Sciences Vorarlberg Patrick Jost, MA E-mail address: patrick.jost@fhv.at Telephone number: +43 5572 792 7306				

	PROJECT PARTNERS						
No.	PARTNER ORGANISATION NAME	PARTNER ORG. ACRONYM	AAL NATIONAL FUNDING AGENCY				
1 (coord.)	University of Applied Sciences Vorarlberg GmbH	FHV	FFG – Austrian Research Promotion Agency, BENEVIT				
2	Bartenbach GmbH	BARTENBACH	FFG – Austrian Research Promotion Agency, BENEVIT				
3	Intefox GmbH	INTEFOX	FFG – Austrian Research Promotion Agency, BENEVIT				
4	Tirol Kliniken GmbH - Hall	ТКН	FFG – Austrian Research Promotion Agency, BENEVIT				
5	University of Applied Sciences St. Gallen	FHS	Federal Department of Economic Affairs, Education and Research EAER, SERI				
6	CURAVIVA Schweiz	CURAVIVA	Federal Department of Economic Affairs, Education and Research EAER, SERI				
7	EMT – energy management team AG	EMT	Federal Department of Economic Affairs, Education and Research EAER, SERI				
8	apollis - Institute of Social Research and Opinion Polling	APOLLIS	Ministry of Health (Ministero della Salute), Health Research IRCCS				



# **1. ADMINISTRATIVE PROJECT PROGRESS**

Report below any changes in administrative aspects of the project, excluding all financial aspects.

CHANGE IN	No	YES	IF YES: REMARKS/EXPLANATIONS		
Project staff members		x	BARTENBACH has changed the contact person for the project. Katrin Tanzer, PhD focused on the engineering and technical development of the light module. As project management contact Mag. Lisa-Marie Neier, Bakk. Biol.		
Project staff members		х	INTEFOX employed two Software Engineers for the project who just finished their training in polytechnic college as opposed to the planned Software Engineer with experienced academic background. This affected HR / amount of planned project months as described in 6. Financial effort did not increase due to the lower hourly rate of the employees.		

2. DELIVERABLES SUBMITTED AND MILESTONES ACHIEVED DURING THE REPORTED PERIOD							
Please list below the deliverables and milestones, using the same numbering as specified in the description of work. In case of deviations from the description of work (work plan) regarding delivery dates, achievement of milestones or changes in planned outputs, please give details, and indicate whether and to whom (AAL NFA/NCP) the changes have been communicated.							
DELIVERABLE	DUE DATE	RESPONSIBLE PARTNER	DELIVERY DATE	REMARKS/EXPLANATIONS			
D1.1	D1.1 30/09/2017 FHV 15/10/2017 Finished report was peer- reviewed by Swiss partners FHS experts for dementia and updated for the final version.						
D2.1	30/01/2018 BARTENBACH 30/01/2018						
D2.2	30/01/2018	INTEFOX	30/01/2018				





AAL AAL Joint Programme – 12-months progress & financial report

D3.1	30/01/2018	FHV/APOLLIS	15/02/2018	Application and Module Implementation tests on site were prolonged into January 2018. Implementation report incorporates the results and feedback of implementation tests.
D4.1	30/06/2017	FHV	30/06/2017	
D6.1	28/02/2017	FHV	04/05/2017	Consortium Agreement was finished content-wise and agreed upon at the kick-off meeting (20.02.2017) with small changes. The document was then signed by all partners on postal way. Final signature of the FHV as project leader was made on 04.05.2017.
D6.2	28/02/2018	FHV	28/02/2018	

MILESTONE	DUE DATE	RESPONSIBLE PARTNER	ACHIEVEMENT DATE	REMARKS/EXPLANATIONS
M1	30/04/2017	FHV	30/04/2017	
M2	30/09/2017	FHV	15/10/2017	Integration of literature and results of the end-user interviews on dementia related emotion, behavior and activity was revised by dementia experts of FHS and TKH before the final conclusions were established.





M3	30/01/2018	FHV, BARTENBACH, INTEFOX, FHS	30/01/2018	Pilot application and hardware of all three modules (light, sound and scent) was implemented and integrated at location in all participating End- User organizations for the functional and acceptance tests. Various feedback loops and ambience generation curves were implemented and functions verified. Impact adaption and evaluation of ambiences is set to iterative development for the upcoming field tests.
----	------------	-------------------------------------	------------	---

### 3. SCIENTIFIC/TECHNICAL PROJECT PROGRESS TO DATE

### Please check appropriate box:

The project  $\Box$  is in line with (or) X deviates from the valid description of work (version/date: 1 / 02/2017)

### In the case of deviation, please explain how and why:

Provide a summary of developments since the last report, including:

- The performance of the project consortium
- Technical achievements
- End-user services

The project progression during the first project year presented according to plan in most WP. The performance of the consortium is as expected. However, the personal effort is higher than planned due to three factors. First, the technical solution of the luminaire to allow for high quality downlight and uplight and the decision to allow for two modular form factors (floor and ceiling lamp) required several additional design and construction iterations. Second, the scent module was designed and crafted according to end-user requirements resulting from WP1 and WP4 and considerations of the care facilities. To fulfil all requirements more hardware and software prototyping was necessary. Third, the employment decision from INTEFOX has increased the person months of the modular software development and integration (see 1. and 6.). Nonetheless, the pilot application including all three modules was finished as planned and tested on location at the end-user facilities and several private settings in Austria, Switzerland and Italy.

Active integration of end-user requirements during the development of the three modules, light, sound and scent resulted in ready prototype modules. We organized workshops in collaboration with dementia care organizations such as Connexia to allow for participative design improvement. The developed modules were subsequently successfully integrated in the end-user facilities and



private settings and feedback is currently integrated in the next iterations for the upcoming field tests which are planned starting in April 2018. For the user interface (i.e. the app) to control the persuasive ambiences several designs were developed and inspected by user experience experts from FHV to determine a design that is currently set-up to be tested with care personnel at care facilities. In consultation with Connexia we are adapting the second workshop to individual user sessions at care facilities to assess user experience with the user interface and also the physical accessibility/handling of the modules directly on location.

Module algorithms were implemented (WP2) and tested to automate room-ambiences according to schedule but also allow for manual intervention. The modular concept allowed us to display mobility by transferring the light, sound and scent modules from care facilities to private settings with little effort and connectivity between modules and the controller was established easily with home networking equipment as well as in care homes. For field testing the best locations are currently identified. Upper-arm sensors as well as movement sensors were already tested in the usability lab and are now prepared for the field tests to allow for feedback-evaluation to the automated room-ambience algorithms.

In WP4 we also considered ethical requirements for the field tests and applied for ethics approval in Austria and Switzerland. Due to national differences compared to Austria we adapted the field test settings for Switzerland on some aspects. There will be, for example, no artificial ultrasound in the field tests of the sound module in Switzerland. We are currently awaiting the approval of the ethics committees.

The light and scent modules were tested and certified in Switzerland and currently in production to allow for enough modules for the field testing in all three countries. However, there are some considerations that are slowing the production process. First, the Austrian funding agency altered the granted budget regarding asset cost and consumables for BARTENBACH and end-user organization TKH. As the end-user organizations are planned to acquire the luminaires, the budget composition would need alteration again. We are currently in contact with the Austrian funding agency on this subject. Second, the luminaires are manufactured in Switzerland which is impacting the delivery to the end-user organizations due to customs processes. Due to these considerations we are preparing to be able starting the field tests with fewer modules and integrate more during the testing which will additionally allow us to further test the modular nature of the GREAT system in the field trials.

How many consortium meetings were held during the period covered by this report?

During this first period of the project GREAT four consortium meetings were held. Several more meetings were held within the specific sub-groups engineering, impact assessment/end-user participation and ethics considerations.



# 4. IMPACT AND AWARENESS ACTIVITIES

	PLEASE INDICATE IF THE PROJECT WILL PRODUCE/ACHIEVE OR HAS PRODUCED/ACHIEVED ANYTHING OF SPECIAL INTEREST FOR THE AAL JP (E.G. A PROJECT EVENT, PRESS RELEASES, PUBLICATIONS, PATENTS, DEMONSTRATORS, ETC.).						
Project participant responsible (indicate country)	Activity	Date	Medium and reference (press, event, newsletter , webpage, etc.)	Indicative coverage			
Austria – FHV, Jost	Publication of all relevant project details on the project webpage <u>http://great.labs.fhv.at</u>	01/02/2 017	Webpage				
Austria – FHV, Jost, Hofer	Printed project folders for display at University of Applied Sciences Vorarlberg	01/02/2 017	Printed Folder	University personnel and students as well as all visitors, guest lecturers and others			
Austria – FHV, Jost	Integrated project website link in every e- mail conversation	01/02/2 017	Newsletter				
Austria – FHV, Jost	Conference Usability Day 2017, GREAT – persuasive ambiences, uDay XV Assisted Living, Dornbirn	22/06/2 017	Poster				
Austria – FHV, Hämmerle, Künz, Hofer	Workshop technology and dementia, Lauterach	30/05/2 017	Event	Potential end-users and care facility employees in the federal state			
Austria – FHV, Hämmerle, Künz, Jost	Enduser Workshop with Connexia	27/09/2 017	Event	Potential end-users and care facility employees in the			





AAL AAL Joint Programme – 12-months progress & financial report

				federal state
Austria – FHV, Werner	AAL2Business, Coimbra, Portugal	02/10/2 017	Conference	International , Scientific Community
Austria – FHV, Werner	Networking Meeting, Austrian dementia projects (AIT, Exthex), Coimbra, Portugal	03/10/2 017	Meeting	Austrian academic and business partners
Austria – FHV, Hämmerle, Werner	Networking Meeting, FH Joanneum, FH Campus Vienna, TU Vienna, planning of workshop at e-health summit Austria	31/01/2 018	Meeting	Academic peers in Austria
Austria – FHV, Kempter	"Privatheit im Wandel: Rückzugsort Wohnraum." Talk at conference: "Menschen mit Behinderung in der Welt von morgen", Zurich, Switzerland	2017	Talk at Conference	
Austria – FHV, Kempter	"Digitalisierung für ein selbständiges Leben im Alter." Talk at meeting of economy club, Feldkirch	2017	Meeting	Local economy in federal state of Vorarlberg
Austria – FHV, Kempter	Get ready for activity – daily structure. Talk at conference for geriatric psychology in Hall/Tyrol	2017	Talk at Conference	Scientific Community, End-users, care facilities in federal state of Tyrol and other Austrian states
Austria – FHV, Kempter	Beeinflussung zirkadianer Rhytmen des Menschen durch Licht, Temperatur und Feuchte. Talk at Life & Health Science Cluster in Tyrol, Innsbruck	2017	Talk at Conference	Scientific Community, End-users, care facilities in
Austria – BARTENBACH , Canazei	Workshop 10. Tiroler Demenztag	17/03/2 017	Workshop	Information of possible endusers
Austria –	Lux Europa	17 –	Congress	Information



# **CENTRAL MANAGEMENT UNIT** Rue du Luxembourg 3 – BE-1000 Brussels – +32(0)221-99-225

www.AAL-europe.eu



AAL AAL Joint Programme – 12-months progress & financial report

BARTENBACH , Tanzer		20/09/2 017		of scientific community
Austria – BARTENBACH , Neier	Lux Europa	17 – 20/09/2 017	Congress	Information of scientific community
Austria – BARTENBACH , Weninger	Lux Europa	17 – 20/09/2 017	Congress	Information of scientific community
Austria – TKH	Workshop and presentation at conference geriatric psychiatry <u>https://www.dfpkalender.at/public-</u> <u>dfpkalender/viewEvent.jsf?id=592888</u>	01/12/2 017	Conference	
Austria – TKH	Presentation at practice day dementia needs skills <u>https://www.tirol-</u> <u>kliniken.at/page.cfm?vpath=index/meta/ruec</u> <u>kblick-praxistag-demenz</u>	30/11/2 017	Event	
Switzerland – CURAVIVA	Presenting the project to the management/board of Swiss Care Homes	10/12/2 017	Event	900 care homes in Switzerland
Switzerland – CURAVIVA	Presenting the project at assemblies, exchange meetings with companies, e.g. Swiss Post AG, Google, CURASolutions	02/11/2 017	Event	
Switzerland – EMT	Presentation of the GREAT project to Global Switzerland Enterprise, which supports SME's abroad	2017	Event	
Switzerland – FHS	Article in Campus: Waeber, D. (2018). Trends und Themen zur alternden Gesellschaft. Campus, 1,3. <u>http://www.fho.ch/fileadmin/PDF/Campus/Cam</u> <u>pus-2018.pdf</u>	10/12/2 017	Article	
Switzerland – FHS	Presentation to Tertianum (company offering assisted living apartments)	2017	Talk	
Switzerland – FHS	Presenting GREAT – persuasive ambiences online: <u>https://www.fhsg.ch/fhs.nsf/de/ipm-fhs-</u> <u>themenkompetenzen-ehealth-</u> <u>forschungsprojekte-ehealth-und-</u>	2017	Websites	





AAL Joint Programme – 12-months progress & financial report

	gesundheitswesen-great https://www.fhsg.ch/fhs.nsf/de/great- persuasive-ambiences			
Italy – APOLLIS	Presentation of GREAT – persuasive ambiences online: <u>http://apollis.it/17d2164.html</u>	19/09/2 017	Website	

# **5. OTHER COMMENTS**

Report below any other issue or comment (optional)

DO NOT FORGET TO FORWARD ALL UPDATES OF OFFICIAL PROJECT DOCUMENTS (E.G. DESCRIPTION OF WORK, CONSORTIUM AGREEMENT, ETC.) TO THE AAL CENTRAL MANAGEMENT UNIT AND NCP OF THE COORDINATOR AND **PROJECT PARTNERS.** 

## **6. HUMAN RESOURCES REPORT**

PROJECT PERSON EFFORT DURING THE REPORTING PERIOD				
PARTNER ORG. ACRONYM	<i>Actual</i> effort in person/ months for the reporting period	<i>Planned</i> effort in person/ months for the reporting period	Remarks	
FHV	22.3	19	Engineering efforts for developing the scent module were higher than expected	





BARTENBACH	18.85	15	Increased effort for development of light module. Modular floor and ceiling light engine was developed
INTEFOX	17.8	7	As remarked in 1. due to employment decision the person months increased while financial effort remained in planned range.
ТКН	3.5	4	
FHS	12.6	11.7	
EMT	8	6	Increased effort for development of light module. Modular floor and ceiling light engine was developed
CURAVIVA	6.2	7	
APOLLIS	8.5	7.5	
TOTAL	97.75	77.2	

Note. 1 year = 1720 working hours (1 PM = 143.3 h)

### **ADDITIONAL INFORMATION**

Please check appropriate box:

The financial progress of the project  $\Box$  is in line with (or) X deviates from the partner's Grant Agreements & Work Packages plans (personal efforts, other costs, etc)?

### In case of deviation, please explain how and why:

Please see remarks in section 6./3. on deviation of PM and section 3. on cost considerations



Have you encountered or do you foresee any financial difficulties for the project realisation (e.g. payments, additional costs, other)?

Aside from the described budget considerations regarding asset costs, (see 3.) there are currently no financial difficulties expected.

Do you want to make any other comments in relation to the financial aspects of the project?

