

## Project Fact Sheet

Name of the project, acronym, number:

Ambient Light Guiding System for the Mobility Support of Elderly People, Guiding Light, AAL-2011-4-033

Coordinator Organization:

University of Applied Sciences Vorarlberg (A)

Length of the project and starting date:

36 month, May 1, 2012 – April 30, 2015

Partners:

Name	Type	Country	Web address
Fachhochschule Vorarlberg	R&D	Austria	<a href="http://www.fhv.at">www.fhv.at</a>
Tridonic GmbH & Co KG	SME	Austria	<a href="http://www.tridonic.com">www.tridonic.com</a>
Bartenbach Lichtlabor GmbH	SME	Austria	<a href="http://www.bartenbach.com">www.bartenbach.com</a>
myVitali AG	SME	Switzerland	<a href="http://www.myvitali.com">www.myvitali.com</a>
apollis - Institut für Sozialforschung und Demoskopie O.H.G	SME	Italy	<a href="http://www.apollis.it">www.apollis.it</a>
YOUSE GmbH	SME	Germany	<a href="http://www.youse.de">www.youse.de</a>

**Objective of the project (Between 400 and 500 characters):**

Within this project we will develop and implement an intelligent light wayguidance system, which should attenuate age-related mobility impairments caused by reduced spatio-temporal orientation, worry about getting lost, and fear of falling. This guiding light will consist of up to date lighting technologies, innovative intelligent control algorithms, smart mobility monitoring systems, and a distributed information system for mobility parameters. Together with end-users and all stakeholders we will examine how these components can be combined with inter-personal care services.

**Abstract of the project (Including technology in use, end-users involvement – between 1200 and 1500 characters):**

Light is used to meet visual needs of human (e.g. highlighting risks of falling), is applied for temporal orientation throughout the day (e.g. emphasizing day-night rhythm), for spatial navigation during activities of daily living (e.g. illumination of a defined location areas) and is used as remembering as well as information signal (e.g. light spots and light signals). Light therefore has great potential for attenuation of age-related mobility impairments caused by reduced spatio-temporal orientation, worry about getting lost, and fear of falling.

To make use of light in this sense, we will implement a light wayguidance system in private homes of older people that performs a time- and motion-controlled change of intensity and color temperature of room lightings. We will use existing lightings in these rooms and supplement them with additional lighting equipment and electrical installation technologies. After modification light characteristics of lamps will change automatically according to the personal daily routine of residents.

This, however, will not be a rigid system. At the same time mobility parameters of the residents will be monitored (such as movements in and outside the home) and the results of analyzing these data will be used to change the programming of light variations. The adjustment of light programming will be done automatically, nevertheless, residents can manually readjust their lights at any time.

The degree of mobility is an important indicator of health. For this reason we will integrate relevant parameters into a distributed information system as the basis for decisions about preventive provisions. This will give residents at any time insight into their health status, which can be shared with persons of trust (e.g. relatives, doctor).

**Expected results and impact (Between 400 and 500 characters):**

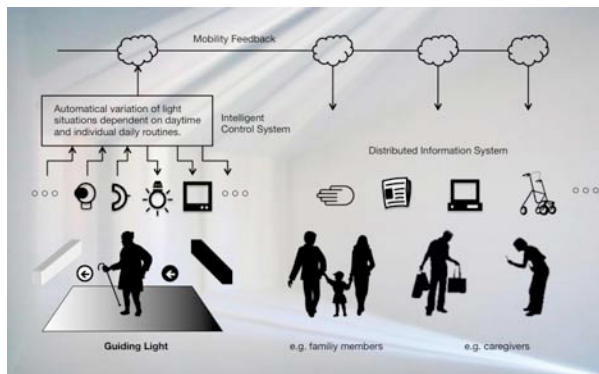
Outcome of the project is an intelligent light wayguidance system consisting a variable set of flexible modules that work together with other heterogeneous home automation systems, information and communication systems as seamlessly as possible. The application of this guiding light system will support the spatial-temporal orientation of older people and thus sustain their mobility as long as possible.

**Total cost of project and public contribution:**

tbd

**Images or graphic (Logo, images or photos showing the product or service):**

Images or photographs (also graphics where needed) are mandatory. Send ftp link or esp file.



**Website link(s):**

[www.guiding-light.labs.fhv.at](http://www.guiding-light.labs.fhv.at)

**Contact person (name, e-mail, phone, address):**

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