



Emma
flexible living assistant

Usability criteria for AAL solutions and Smart Homes for elderly people

Emma – the flexible living assistant

Introduction

Over the course of the EU research project DALIA (Assistant for Daily Life Activities at Home) during 2013-2016 an advanced Ambient Assisted Living (AAL) Solution was developed and broadly tested. The aim of the project was to provide a safe home environment with digital solutions for older adults and their informal as well as formal caregivers. Moreover, the project's goal was to support the elderly and their caretakers in every day challenges such as medication intake, social isolation or in an emergency case. Analysis of the participants' interviews have shown a significant demand to simplify the usage of the tested products as well as enhance the operation more intuitive.

Ultimately, in order to ensure a high level of usability and a low entry barrier for people with little to no IT-knowledge, the solution Emma – the flexible living assistant - comprising of two interactive tools EmmaHome and EmmaHelp - was developed.

Smart & usability-friendly solution: EmmaHome and EmmaHelp

EmmaHome is a base station with an integrated multi-lingual speech assistant. It provides functions such as on-demand emergency or service calls, voice-based messaging, medication and drink reminder, or serves as a stove monitor. EmmaHome is designed in a modular way, according to the specific needs of every individual user.

Intelligent smart home products, sensors and support modules can be integrated and create more safety and comfort at home



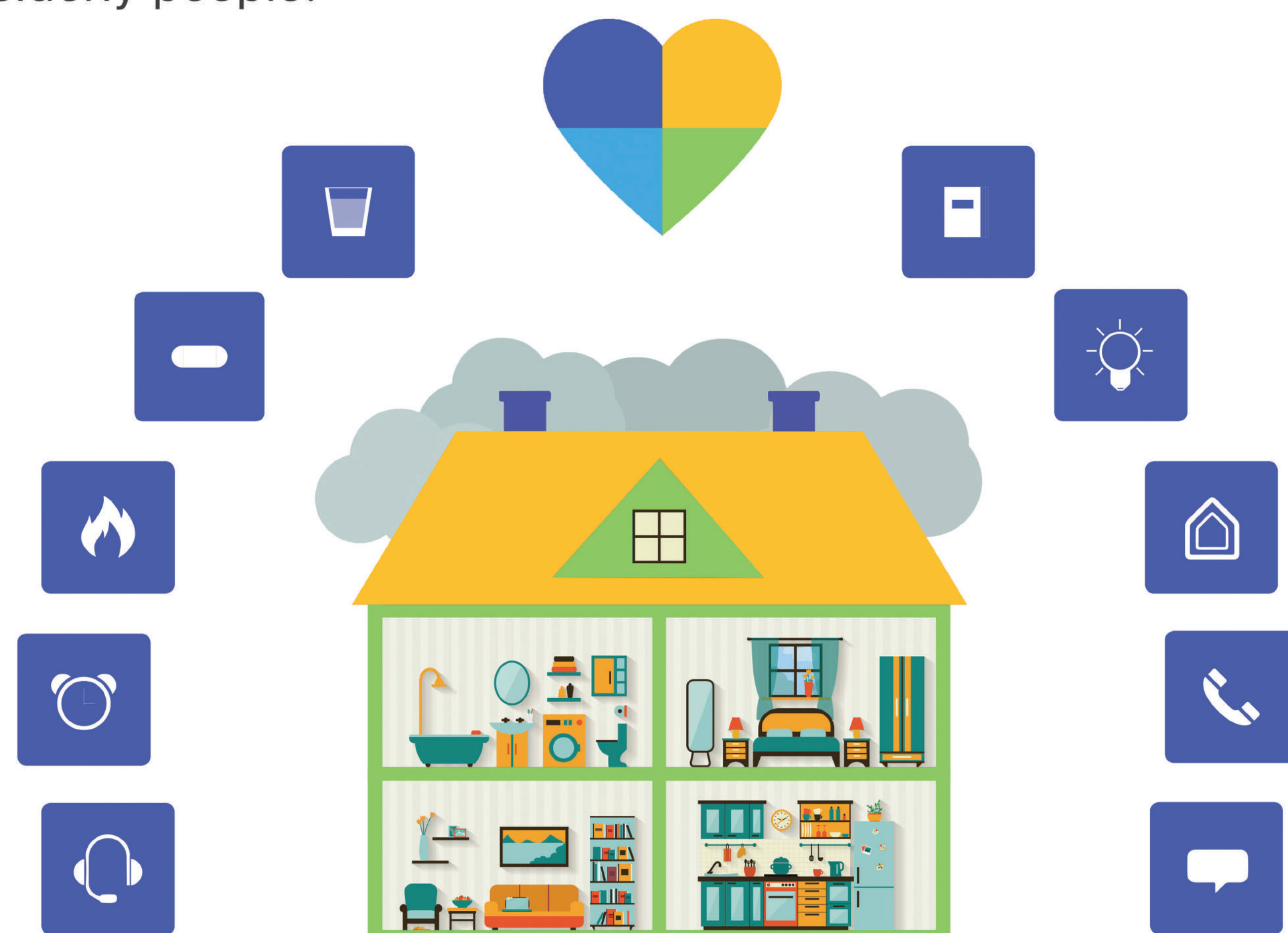
EmmaHelp is a community platform with an integrated webshop, chatbot and recommendation system.

It enables the broad integration of regional and supra-regional actors and serves as information hub. At the beginning, an individual profile is drawn up by identifying the current situation of the care condition.

Emma develops a tailor-made amount of care services from a comprehensive range of service providers and products. The service is coordinated – from booking to cost monitoring - directly on the EmmaHelp.

Further Research

We are constantly striving to further develop and enhance Emma's functionalities. Currently, the EU project "DAPAS – Deploying AAL Packages At Scale" combines several AAL solutions into one product. The solution is being tested in a randomised study in three countries; Austria, Portugal and Luxembourg at the beginning of December 2019. In the three-stage-study the participants are asked about the usability, the improvement of their life situation, the applicability of the functions and the change of their quality of life. Through this study we gain more precise information about the usability criteria to develop our system even closer to the needs of elderly people.



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