

## ONE YEAR OF VICTORYAHOME

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### ABSTRACT

*VictoryaHome aims to help and enable older adults to live their lives the way they want and to support their caregivers. To all users it brings peace of mind, pleasure, never being alone, being safe and secure, feeling connected, sharing feelings and experiences, help to the helpers and making caring popular. This paper presents the main achievements of the VictoryaHome project after its first year.*

**Keywords:** Informal Care, Peace of Mind, Telepresence, Care Robots, mHealth, Home Care, Aged Care, Welfare Technology, Ambient assisted Living

### 1. Introduction

More and more people have certain dependencies, multiple chronic diseases and advanced stage incurable conditions that are in need of new approaches from the point of view of social and health care.

Next to this, missed or doubled medication is high on the list of causes of hospitalization or even death [1], and falling is a huge problem. Very frequently the older adult is unable to move and ask for help; and only to be found when someone comes to the house. A study showed that in 54% of the falls, the participant was found on the floor and that 82% of falls occurred when the person was alone [2].

Today many ICT solutions for older adult care at home, designated as tele-care technologies, are already available in the market. Tele-care is a pressing topic and more and more services



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are offered and implemented. However, how much are these technologies supporting older adults at home in their daily activities? What about their informal carers like family and friends? Are such technologies giving them peace of mind and lightening their burden? There is a large gap separating real needs and the promoted products.

VictoryaHome aims to address these health, wellbeing and safety issues by offering services that empower informal carers like family and friends to keep an eye on their beloved ones – providing both the care givers and the care takers a feeling of safety and peace of mind.

## **2. VictoryaHome**

VictoryaHome is both a system and a set of services that monitors health and safety, and facilitates social contact. The VictoryaHome services support care for the older adults at home – the primary users - and empower their families, friends and professional caregivers- the secondary users - bringing immediate human presence when needed. Therefore, it includes smart devices like an activity monitor, fall detector and an automatic medication dispenser, a smartphone app for family and friends, an online dashboard for response centres, and a mobile telepresence device called Giraff [3], which functions as an avatar of the secondary users and that stays with the older adult.

The mobile Serenity App gives family, friends and other caregivers an overview of the older adult's wellbeing, by showing for example missed medication, falls and visit me requests sent by the older adult via the Giraff. In response these caregivers can use the Giraff to make a virtual visit. In case of emergency professional care can be included using the dashboard and the Giraff for instant presence.

Our mission is to support people in taking care for each other, and to bring peace of mind for all users. Therefore, we develop the VictoryaHome system and services in a user-centred design approach, we test these services with a large group of end-users in long-term trials in their own homes, and we include end-users, family, friends and professionals in four European countries. Also, we are developing a solid business strategy that fits within existing care processes, with the aim that the services will be continued after the project's end in 2016.

## **3. Results so far**

The VictoryaHome project has been active for over a year. During its first year, two full cycles of user-centred design have been organized, shaping the system and services. Also country-specific information on current care processes has been analysed and the first version of the complete system has been developed and deployed. An initial business strategy has also been created [4], and the project team

has been present at many conferences, exhibitions, and events to inform future users and care organisations about the VictoryaHome services.

The first half of year 1 has been dedicated to understanding people's context of use, gathering user needs and perspectives on assistive technology, determining user requirements and criteria for acceptability, investigating potential barriers and constraints, thinking of services, creating usage scenarios, and making concept designs. Early prototypes have been used to run co-design workshops and do the first user evaluations of these VictoryaHome services with older adults, family and caregivers. In these design phases 16 focus groups have been organised in 4 countries, including 70 older adults and their family members, and 25 individual sessions have been conducted with older adults, family and home care professionals.

From all of these user-centred design activities, the team learned that VictoryaHome should have two main functions: monitoring health and safety, and facilitating social contact. Therefore, VictoryaHome will provide primary and secondary users with:

- Visit Me – older adults can touch one of their contacts on the Giraff to send a request for a visit
- Serenity App for family and friends – showing information and alerts about the persons they care for
- Virtual Visits – done by family and friends to the older adult, using the mobile telepresence device
- Medication Reminders
- Fall Detection
- Activity Checks

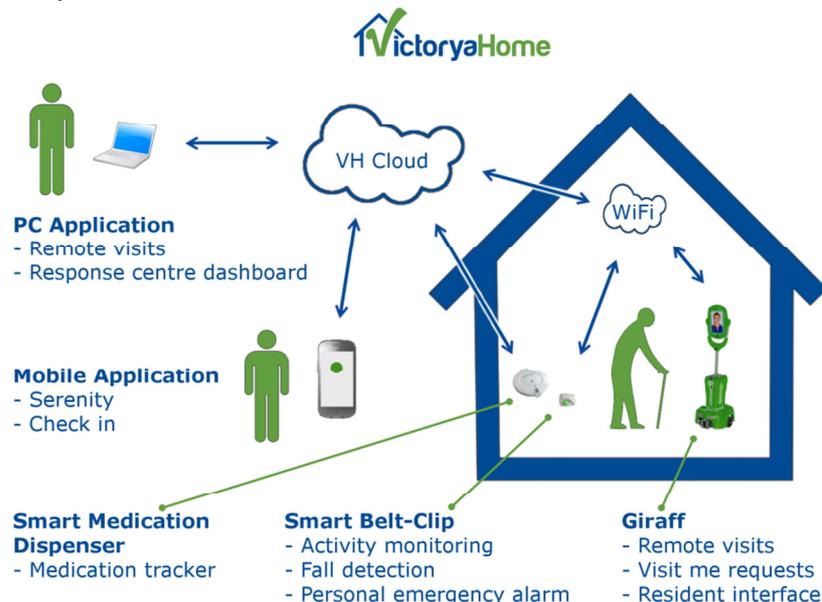


Figure 1: The architecture of VictoryaHome.

The second half of year 1 has been focussed on the specification and implementation of the first VictoryaHome system and services. This system had been tested extensively in the four partner countries, first in home labs, and later in actual homes of end-users and their family. In total, 7 tests have been performed with 20 users (7 older adults and 13 family members, friends and professional caregivers) covering over 80 days of fulltime testing. Results of these tests have led to many improvements in the hardware and software system, VictoryaHome services, usability and workflows.

#### **4. Planning**

In October 2014, long-term trials will start in four countries – Norway, Sweden, The Netherlands, and Portugal. These evaluations studies will include 40 VictoryaHome systems with over 150 users (older adults and family). The older adults will have the VictoryaHome system installed in their homes for a period of 6 months. Family and friends, professional caregivers and response centres will all be involved following newly defined care procedures.

Next to this large-scale evaluation, the project team will use the second half of the project to develop a solid and sustainable business case for the VictoryaHome services, in order to guarantee the continuation of these services after the 3-year project has ended.

Strong collaboration will take place between the teams working on the business strategy, on the development of new care processes, and on the long-term effect studies. Also collaborations will be started with external stakeholders like home care organisations, insurance companies, and local and regional governments, not only to present them the project, but also to prepare them for the near-future introduction of VictoryaHome systems in people's own homes.

#### **5. Conclusions**

After one year the project already achieved interesting results: three full-cycles of user-centred design resulting in the services described, analysis of country-specific care processes in all test sites, a first complete functional release of the system and an initial business strategy with full commitment of the partners.

In the coming year the project team expects to gain a lot of practical experience when rolling out the system into 40 homes across Europe and offering the services to a large group of older adults and their family. These services will be evaluated on many aspects, including: the potential to improve pleasure, peace of mind, the burden of care, feeling connected, social contact, loneliness, being in control, self-management, physical activity, medication adherence, feeling safe, and quality of care.

First results of this study are expected in August 2015, so the reader is invited to keep an eye out on future talks and publications of the VictoryaHome team.

## REFERENCES

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