ELF@Home

Elderly sELF-care based on sELF-check of health conditions and sELF-fitness at home

D7.4 Final project meeting involving all the stakeholders

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Abstract

This document reports the results of the final meeting of the ELF@Home project that took place on May 11th 2016 in Gijón (Spain). CTIC, as project coordinator, was the host of this meeting. The partners talked about the current state of the project, the user trials and they discussed the future of the project.

Executive Summary

This document reports the results of the final meeting of the ELF@Home project that took place on May 11th 2016 in Gijón (Spain). CTIC, as project coordinator, was the host of this meeting.

In this document, first the agenda proposed for the meeting is shown. Then, the list of the partners that have attended the meeting is detailed. The last section of this deliverable shows the main topics that were explained and discussed during the meeting.

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Abstract (for dissemination)	This document reports the results of the final meeting of the ELF@Home project that took place on May 11th 2016 in Gijón (Spain). CTIC, as project coordinator, was the host of this meeting. The partners talked about the current state of the project, the user trials and they discussed the future of the project.
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Abbreviations

EUPE: Evaluation Unit and Planning Engine

1 Agenda

CTIC established the following agenda for the meeting:

Morning: State of the project and trials results

09:00 General review of the project - CTIC
Management issues, project progress and dissemination activities

09:10 Review of the different parts of the system:

Bio-medical platform – CHE
Wearable Activity Sensor – 2D
Exercise recognition and interface – CTIC
Database and web services – IZERTIS
Caregiver web - IZERTIS
EUPE - IIS

What is the current state of each component?
Main problems that happened in the integration phase.

10:30 Coffee break

11:00 User trials in Spain - CTIC
Review of the user results obtained
Discussion of the main problems found

11:30 User trials in Sweden - UMU
Review of the user results obtained
Discussion of the main problems found

12:00 User trials – General discussion
Discussion of the results in Spain and Sweden

13:00 Lunch Break

Afternoon:

15:00 Definition of the Business model – IM and CHE
Discussion about the future of the project

17:00 Final deliverables - CTIC
Review of the state of each deliverable

17:30 End of the meeting

2   Attendance of the meeting

Mostly all of the partners were able to attend the meeting, being SKO the only partner that could not attend the meeting.

In addition, two representatives of OVIDA were in the meeting. OVIDA is an institution that collaborates with SGGPA in the development of the trials in Spain and in the meeting they were able comment about the users' impressions. José Antonio from MANCOSI was not able to go to this meeting; although he talked with the coordinator to tell her about the trials he managed (MANCOSI is a collaborator of the project although it does not receive any funding).

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In the following images mostly all of the attendants of the meetings can be seen:
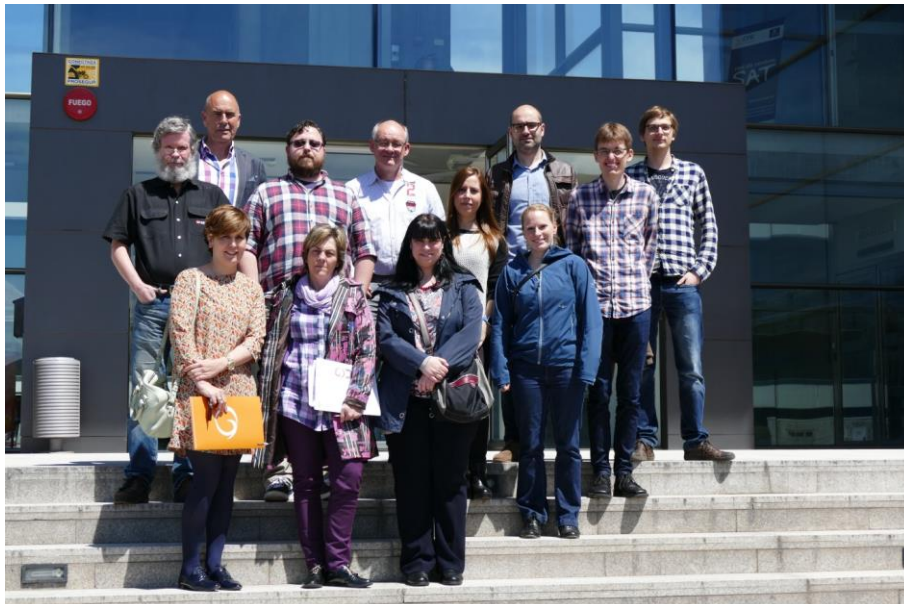
Figure 1: ELF@Home team

Figure 2: ELF@Home team at the meeting

3 Meeting

In the morning sessions the partners focused on the current state of the project and the user trials. In the afternoon the partners focused on the business plan.

3.1 General review of the project - CTIC

Sonia (CTIC) did a general review of the project. She explained the current state of the project and she talked about the dissemination actions of the project from last year and the future dissemination actions.

Lucía from SGGPA talked about the possibility of having a poster or a presentation for a congress related to gerontology for next year (2017). It was not possible do it for the current year because when the publications needed to be sent to the congress there were no enough user results available.

3.2 Review of the different parts of the system:

In this part of the meeting, the responsible of each component of the system did a small presentation about the current state of the component. Then Sonia talked about the main problems that happened during integration.

3.2.1 Bio-medical platform – CHE

Sonia explained the problem that happened when CHE sent the blood pressure sensors to CTIC: the manufacturer had changed the firmware of the sensors to make them integrated in the Continua protocol. This meant that something had changed in the communication protocol so the sensors did not connect. CHE solved this problem by creating another communication library that would support both versions of the sensors (as in Sweden they had the "old" version).

3.2.2 Wearable Activity Sensor – 2D

Rainer (2D) explained the current state of the Activity Sensor. He explained its different parts and the integration of the detection algorithm that has been done in collaboration with IIS. He also explained the integration with the Fitness-Box that has been done with the collaboration of CTIC: 2D created a dll that was used to communicate the ELF@Home program with the Activity Sensor. A Windows Service was also developed by CTIC for this part, because there was a need for a component that was always waiting for the results generated by the Activity Sensor.

Rainer then talked about the comparison of the ELF@Home Activity Sensor and other new commercial devices that monitor the movement (Fitbit, Garmin, TomTom). The partners discussed that when the project began, there were almost none of this products in the market but now there has been a high development of this kind of devices. Rainer explains that the commercial products have a higher integration and product level but on the other hand, the Activity Sensor developed by 2D has an added value that is based on the possibility of having the raw data recorded (the other devices only offer access to certain final data already processed), integrating a contactless charging and automatic download of the data. Rainer then talked about some market possibilities, being one of them the waterproof system for swimming control that has been already tested with this device.

3.2.3 Exercise recognition and interface – CTIC

Sonia explained the current state of the exercise recognition and interface. She explained the integration with the new videos of the exercises recorded by IM. As it was decided in the last face-to-face meeting, IM

recorded two videos of each exercise, one of a young man and one of a young woman. CTIC implemented the possibility of personalising the kind of videos to be shown to each user (only of a certain gender or random). In addition, a new inactivity detection algorithm was implemented, in order to detect if the user was having problems so the program offered the possibility of skipping the exercise.

3.2.4 Database, web services and caregiver web – IZERTIS

Sonia explained the main problems that happened in the integration phase, mostly related to the caregiver web. Åke also explained the main issues that happened when he started inserting data into the caregiver web to create new users: there was an unexpected problem with the date of birth, as it recorded completely different values. This problem was caused by different date formats due to different web browsers and a solution to his problem was found.

3.2.5 EUPE - IIS

Robert (IIS) explained the state of the work developed by IIS. They were in charge of the algorithm for the activity detection and transferring this algorithm to the Activity Sensor and also in the creation of the EUPE.

In relation to the EUPE, he explained how the health status of the user is calculated for each day, based on the thresholds previously defined by SGGPA. Then, a general health status value is generated once a week. The EUPE also calculates the daily performances of the indoor and outdoor exercises and these values are combined at the end of the week to generate a value that will be the final performance. Robert explained the algorithm for the level adjustment that is based on the health status and exercise performance and the method for selecting the different exercises that will be part of each schedule. Finally, the problems that happened in the integration phase were discussed.

3.3 User trials in Spain - CTIC

Sonia explained the results of the user trials in Spain. First, she explained the trials carried out with the collaboration of MANCOSI with users that live on their own homes. Then she showed the main results of the tests that were managed by SGGPA. These tests took place in OVIDA, an intergenerational centre located in Oviedo (Spain). In this case, the users needed some assistance to do the exercises (they mostly do it on their own but if they don't know what to do, they need help from a caregiver). As a result, the caregivers are always with them while they are doing the exercises. This situation takes the OVIDA staff a lot of time so there are less results for the trials than expected.

3.4 User trials in Sweden - UMU

Åke showed the main results for the user trials in Sweden. He explained that they see the benefits of the exercises and that they like the idea of medical expertise monitoring the exercises. He adds some other comments that the users made, such as that the 60 second pause between exercises seems to be too long or that often the users start doing the exercises while they are seeing the video.

3.5 User trials – General discussion

The differences between the user trials in Sweden and Spain are discussed. The Spanish tests seem to have more problems with using the health sensors as the communication fails sometimes. In Sweden this communication seems to work better, so the reason seems to be the differences in the hardware equipment that has been used.

The partners also discussed the medical aspects of the application. The Swedish users and some Spanish users thought that the number of health measurements that have to be done in each session was too much. But SGGPA maintained that each one of the measures at different parts of the session has a different meaning and that all of them are needed. Other users did not think that it was too many measures; they like to have a medical control.

In relation to the mode of interaction, the users in Spain prefer the voice commands whereas the Swedish users are a bit hesitant to do this kind of interaction at first.

The outdoor exercises were not tested by the users because there were communication problems with the Activity Sensor in Sweden. The Spanish users did not want to use the Activity Sensor because they thought it was too complex.

The differences in the user profiles in Sweden and in Spain are discussed. Even in the Spanish group, there are a lot of differences between the MANCOSI and OVIDA groups of users.

3.6   Definition of the Business model – IM and CHE

Johan (CHE) explained the business model proposed to reach the market with ELF@Home. In this business model, CHE will be the main business partner to take care of the go-to-market after the funding period. CHE has experience developing remote medical monitoring and wireless and mobile devices for healthcare applications as well as advanced booking, planning, resource and competence systems for different verticals in the market, so they are interested in having ELF@Home as a new product. Then all the main parts of the CANVAS model are presented and discussed by all the partners.

3.7   Final deliverables - CTIC

Sonia showed a final review of the state of the pending deliverables. Then, she reminded the other partners the steps that have to be done after the end of the project: the final reports and the online review process.

4 Conclusions

During the meeting, all the partners were able to get a global view of the state of the project, reviewing all the individual components of the system and to know the user trials that were still taking place.

The future of the project was an important issue that was addressed during the meeting: a new business plan was presented and the partners discussed different options to continue with the project.