



COURSE 1

Module 4 – Introduction to Carelink

CARELINK for People with Dementia (PwD)



4. Introduction to CARELINK

Topics in This Section



This section of module covers the following topics:

- What is CARELINK
- CARELINK mission
- CARELINK goals
- How can CARELINK help you?
- System overview
- How to setup CARELINK
- How to use CARELINK
- Conclusion

What is CARELINK

- **CARELINK** is a team of researchers, innovators and business people from across Europe, committed to delivering a low-cost, location and proximity monitoring system as well as a technology and service suitable to the unique needs of dementia sufferers and also their carers.



CARELINK Mission

- The CARELINK team's core mission is the creation of a smart and adaptive solution for positively managing the wandering of people with dementia, thereby reducing stress for these individuals and their carers.



CARELINK Goals

- Delivering a low-cost health solution for PwDs and carers.
- Monitoring the location and proximity of PwDs.
- Ensuring acceptance and potential market usage of proposed sensor monitors .
- The platform provides support services around training and information sharing.
- The platform initially detects regular movement patterns.
- Providing a mechanism to track pattern changes.
- Recognizing the signs of a patient beginning to wander.



How can CARELINK Help You?

CARELINK can help you by providing the following solutions:

- 1) An adoptive wearable customized to meet the unique needs of PwDs.
- 2) A context-aware, smart-energy wireless sensor suite providing proximity and location data.
- 3) An open cloud-based ecosystem supporting remote system access and future services development.
- 4) A location and monitoring system customized for PwDs.



How can CARELINK Help You?

- 4) Intelligent definition of smart safe-zone and the prediction of unusual behaviour which may indicate wandering.
- 5) An alert system that warns of potential hazards or atypical wandering episodes.
- 6) A Sensor Tag which is low-cost, robust and energy-efficient.
- 7) Information or training portal to support knowledge sharing and platform use.



System Overview



- **In the proposed system, a tailored wireless sensor network is developed to support location and proximity tracking of PwDs. This is made up of wireless nodes consisting of:**
 - 1) The low powered sensor unit that will be worn by the subject being tracked.
 - 2) A low powered hub that can detect the proximity of the sensor units and can be used to set up localized geo-fenced regions.
 - 3) A mobile geo-fenced region can also be set up through the use of a smart phone.

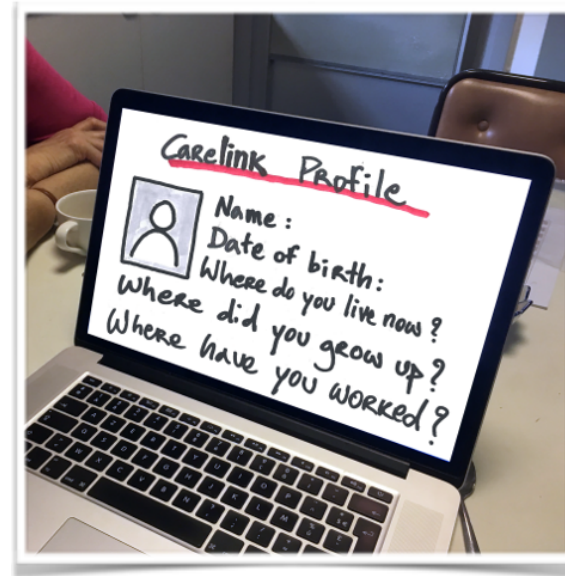
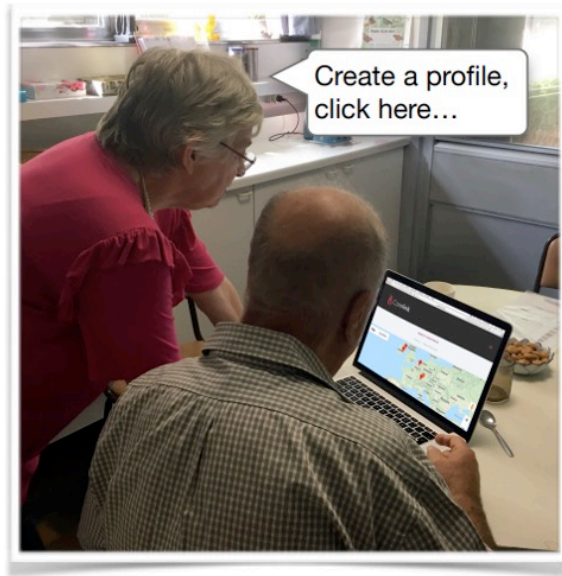
How to Set up CARELINK

- Before you can begin able to use the CARELINK, you first need to set up it.
- **For doing so, you can ask your carer or family to help you.**



- The following slides will provide you a global view about the CARELINK set up and usage to help better understanding this service.

Profile



- Your informal carer or family member should create you a profile, and provide the needed information for the CARELINK service.

How to Use CARELINK

- In the following slides, we will step by step explain you how can use the CARELINK service and benefit from.

➤ Initially, you need to provide the following devices:

- 1) A computer (laptop / PC),
- 2) A smart phone for your carer, and
- 3) A tracking device (e.g., wristband) for yourself.



How to Use CARELINK (*Step 1*)

- **Step 1: Activation and using the devices.**

- In this step, you can wear your tracking device, and make sure it is activated.
- Your carer should also active her smartphone.



- It ensures you that the devices are ready to use.

How to Use CARELINK (*Step 2*)

- **Step 2: Take a practical test.**

- In this step, as an experiment, you can practically test the devices and situations.
- For example, you could go out and walk first in the safe zone.
- Then, you can move to the unsafe zone for checking the reaction of CARELINK services.



How to Use CARELINK (Step 3)

- **Step 3: Your carer will receive a notification.**



- Upon you enter to the unsafe zone, your carer will receive a notification in her smartphone.

- The notification is from CARELINK that shows the platform has detected you are wandered.



How to Use CARELINK (Step 4)

- **Step 4: Looking for to find you.**

- In this step your carer goes looking for you with her smartphone.
- On her smartphone, the app shows your real time location.



How to Use CARELINK (*Step 5*)

- **Step 5: Finding you.**

- In this step your carer will find and approach you.



- She goes along with your story and bends you, in such a way that she follows your back home.

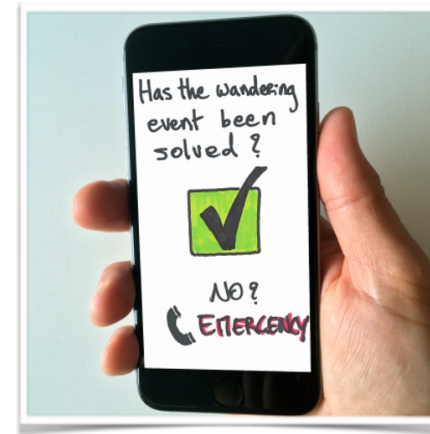
How to Use CARELINK (Step 6)

- **Step 6: Solving the problem.**



- In this step you two will back home, and the CARELINK app asks your carer whether the wandering event has been solved or not.

- Your carer will then mark the event as solved.



Questions

1. What are the goals of CARELINK project:

- A) Providing an adoptive wearable customized to meet the unique needs of PwDs
- B) Providing a location and monitoring system customized for people with dementia
- C) Introducing professional caregivers
- D) A and B (True)

2. CARELINK can help you by:

- A) An open cloud-based ecosystem supporting remote system access
- B) Information or training portal to support knowledge sharing and platform use
- C) An alert system that warns of potential hazards or atypical wandering episodes
- D) All options are true (True)

3. Inorder to prevent wandering, it is better for you to:

- A) Try to go out (when is needed) with an accompanying person
- B) Keep your tracking device
- C) Walk in the safe zone
- D) All options are true (True)



5. Conclusion

Conclusion



- The module opens up an introduction to dementia and wandering behaviors as one of the most concerning issue that is facing the world today.
- Evidences show that people suffering from dementia display many common behavioral traits, and one of the hardest to manage and understand is wandering.
- The module by providing general and easy understandable material tries to help suffered people to gain better insight about the syndromes, symptoms, reasons, and the side affects of both dementia and related wandering.
- Some helpful suggestions for patients are also presented in order to assist them in dealing with associated problems and situations.

Some related video clips to dementia



- <https://www.webmd.com/alzheimers/types-dementia#2>
- <https://www.youtube.com/watch?v=HobxLbPhrMc>
- https://www.youtube.com/watch?v=_KIRpFu1Ub8
- <https://www.youtube.com/watch?v=nLdLfmFzLSO>