



COURSE 2

Module 3 – Carelink solution

Family, Carers, and Community



CARELINK Solutions

Topics in This Section

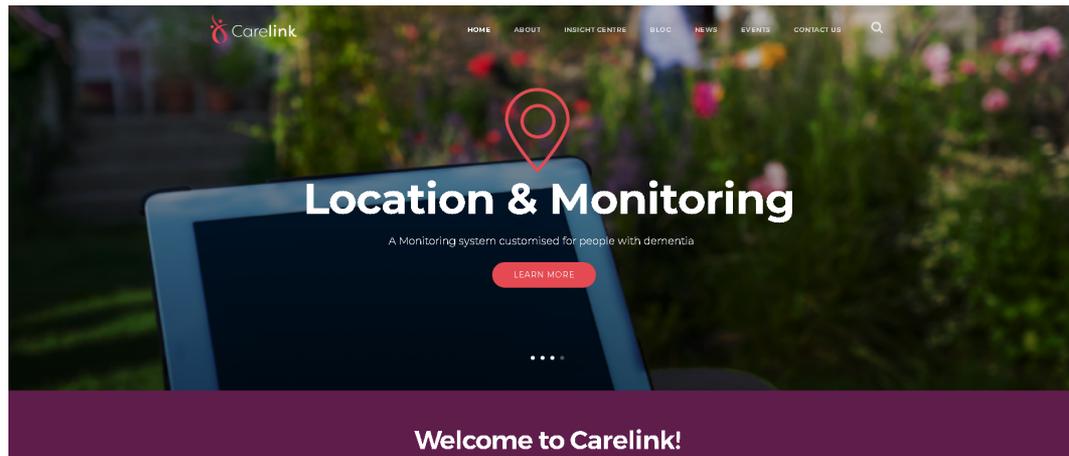


This section of module covers the following topics:

- What is CARELINK
- CARELINK mission
- CARELINK goals
- CARELINK training & education
- How can CARELINK help you?
- How to introduce CARELINK to a person with Dementia
- How to setup CARELINK
- How to use CARELINK in your daily life
- 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.



<http://carelink-aal.org/>

What is CARELINK

- The CARELINK consortium consists of 6 partners including:
- Two Academic Institutions (TSSG, Univova),
- Three SMEs (OpenSky Data, u-sentric and Creagy), and
- One representative from the non-profit sector.
- The core footprint for the team covers Belgium, Portugal, Ireland and Switzerland.



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 carers,
- Monitoring the location and proximity of Persons with dementia,
- 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, and
- Recognizing the signs of a patient beginning to wander.

GOALS

CARELINK Training & Education



- The CARELINK Training Programme consists of a number of modules offering materials to guide and educate the participant in the general condition of Alzheimer's as well as the specifics of wandering.
- Through a training methodology we can share knowledge to the community that introduces the participant to the overall concepts as well as providing guidance towards managing Person with Dementia situations.

 Carelink Course Intro <small>Carlink-Course-Intro-1</small>	 Carelink Introduction to Dementia Domain	 Carelink Introduction to Wandering
--	--	--

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 persons with dementia.
- 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.



How to Introduce CARELINK to a Person with Dementia



- CARELINK is a team of committed people delivering a low-cost , location and proximity monitoring system suitable for dementia sufferers.
- CARELINK aims to reduce the stress for caregivers, dramatically increase the survival rates of wandering patients and promote low-cost community based caring.



How to Introduce CARELINK to a Person with Dementia



The proposed system 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

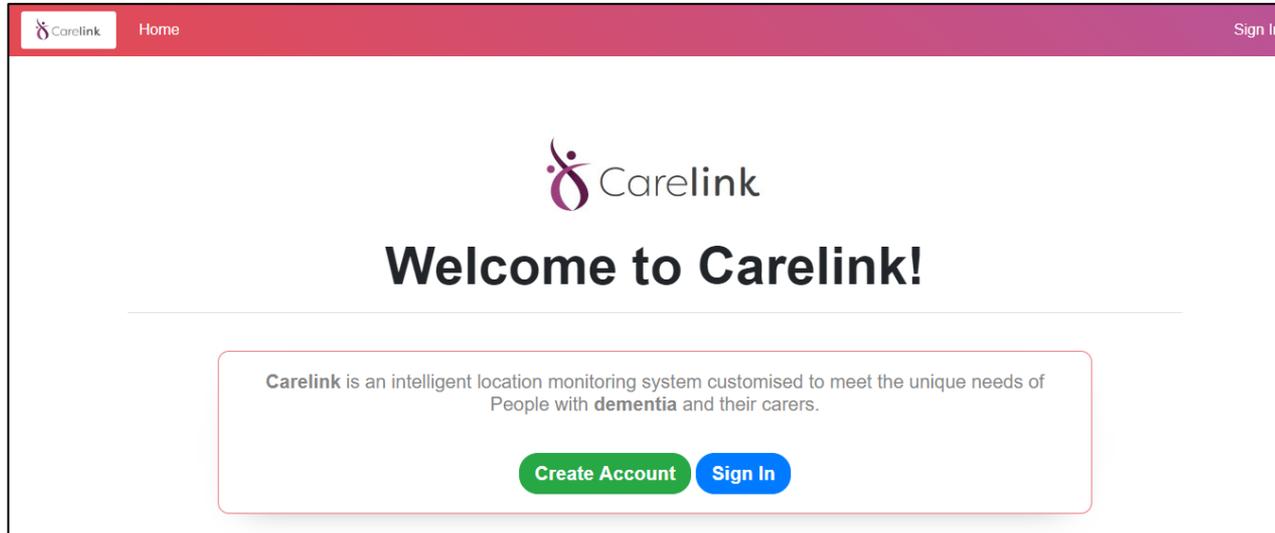
- Before a PwD can begin able to use the CARELINK, he /she first needs to set up it.
 - **For doing so, you should provide him /her some help.**



- In follow you will find some directions and guidelines for setting up the CARELINK.

Home Page

- This picture shows the home page of CARELINK.



- From this view you can navigate to the register or login pages.
- You can also see information about the CARELINK system.

Registration

- Initially, the PwD needs to be registered to the system.
- In the login process, the registration form requires PwD's personal information.



- After successful registration, the PwD will be redirected to the login view.

A screenshot of a web application's registration page. The page has a red header with the Carelink logo, 'Home', and 'Sign In' links. The main content area is titled 'New Registration'. Below the title, there is a message: 'Creating an account takes only a minute. Below details will be used to login to your account.' The form contains three fields: 'Username' with the value 'bwiorek@openskydata.com', 'E-mail' with the value 'yourmail@example.com', and 'Password' with masked characters '.....'. A green 'Register Now' button is positioned below the fields. At the bottom of the form, there is a link: 'Already have an account? Sign in'.

Login

- After successful registration the PwD can login to the system.
- The sign in form requires PwD's information that you provided in the registration process.

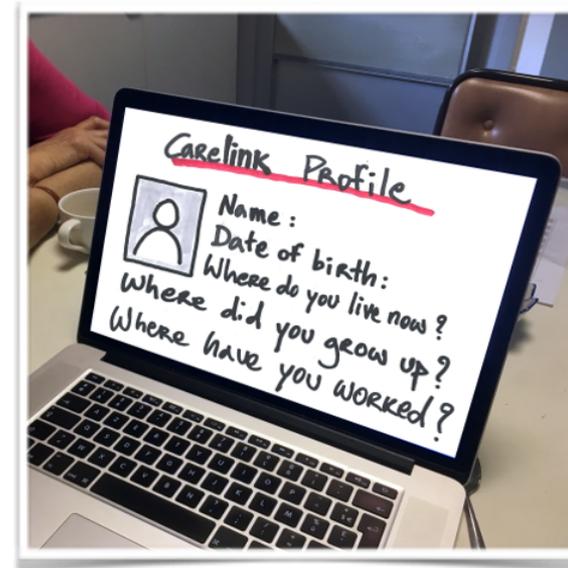


- After login, the PwD will be redirected to the admin panel view.

A screenshot of the Carelink web application's sign-in interface. The page has a red header with the Carelink logo. The main content area is white and features the text "Sign In" centered. Below this, there is a form with two input fields: "E-mail" containing "bwiorek@openskydata.com" and "Password" containing ".....". A blue "Sign In" button is positioned below the fields, and a "Create an Account" link is located at the bottom of the form area.

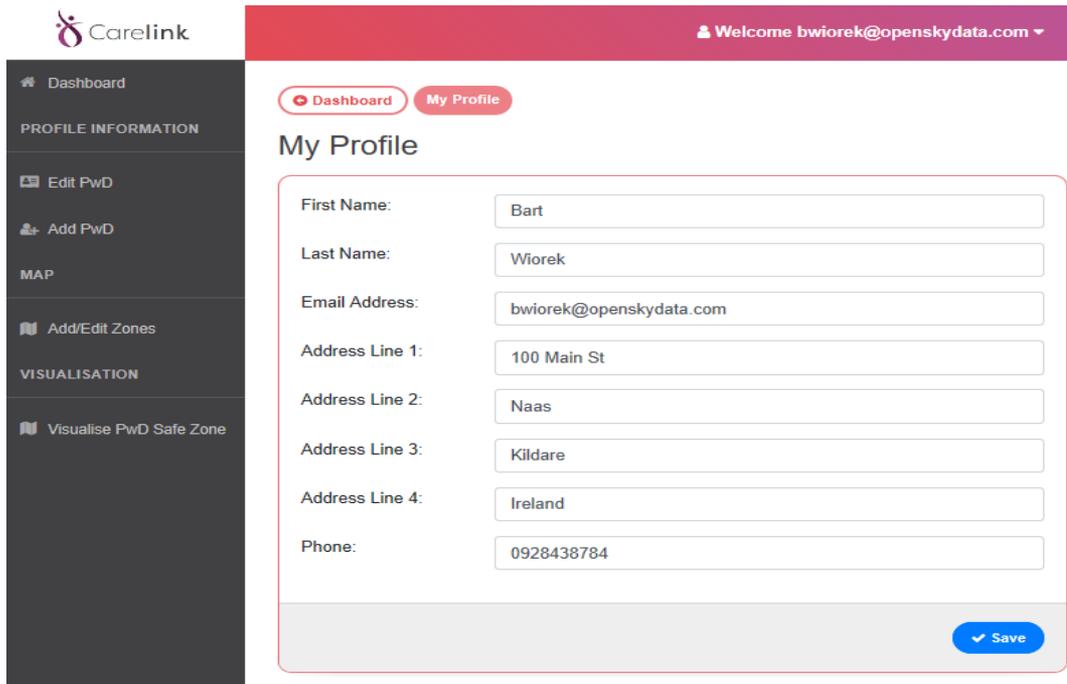
Profile

- You should create a profile for the PwD, and provide the required information for CARELINK service.



Profile

- The PwD's profile view is accessible from the admin panel view.



Carelink

Welcome bwiorek@openskydata.com

Dashboard My Profile

My Profile

First Name:

Last Name:

Email Address:

Address Line 1:

Address Line 2:

Address Line 3:

Address Line 4:

Phone:

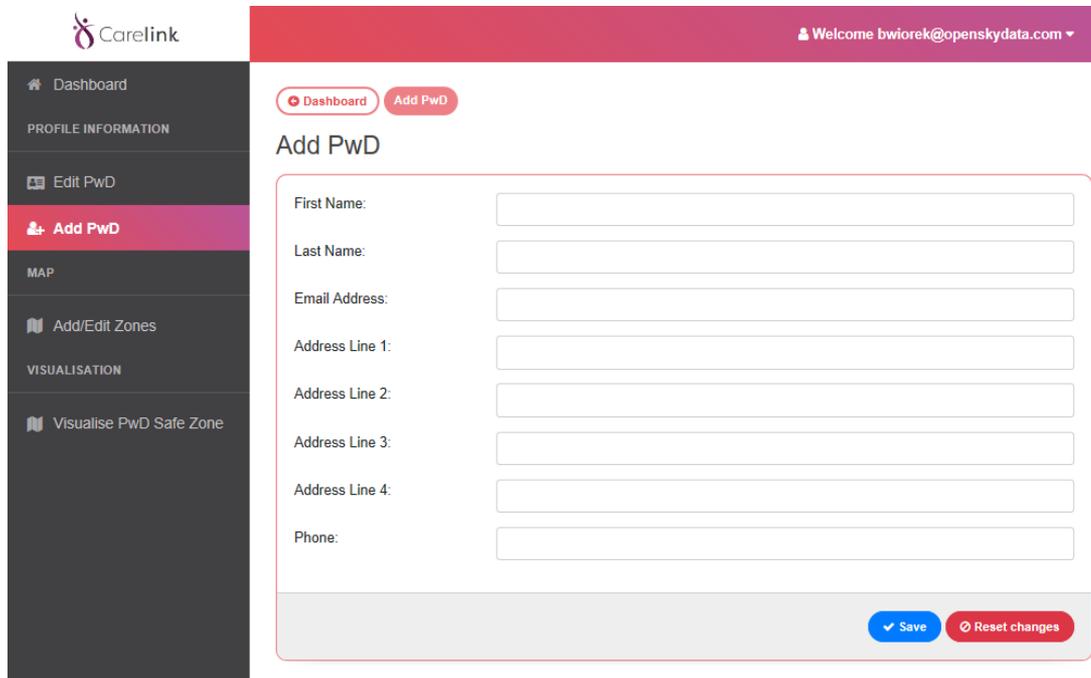
Save



- It provides a form with prefilled carer user profile information which can be edited and saved.

Add New Person with Dementia

- The add new PwD view is accessible from the admin panel view.
- It provides a form that can be used to add the PwD to the system.



The screenshot shows the Carelink web application interface. On the left is a dark sidebar menu with options: Dashboard, PROFILE INFORMATION (Edit PwD, Add PwD), MAP (Add/Edit Zones), and VISUALISATION (Visualise PwD Safe Zone). The 'Add PwD' option is highlighted. The main content area has a red header with 'Welcome bwiorek@openskydata.com' and two buttons: 'Dashboard' and 'Add PwD'. Below the header is the 'Add PwD' form with the following fields: First Name, Last Name, Email Address, Address Line 1, Address Line 2, Address Line 3, Address Line 4, and Phone. At the bottom of the form are 'Save' and 'Reset changes' buttons.



- Through this form, the PwD also provides more detailed information.

Displaying "My Profile" on Mobile



- This picture shows how the "My Profile" screen appears when it would be displayed on a mobile device.

Carelink

Welcome bwiorek@openskydata.com

Dashboard My Profile

My Profile

First Name:

Last Name:

Email Address:

Address Line 1:

Address Line 2:

Address Line 3:

Address Line 4:

Phone:

Save

Person with Dementia List

- The PwD list view is also accessible from the admin panel view.
- It shows the list of PwDs who are assigned as user.
- After registration, the PwD's name appears in this table

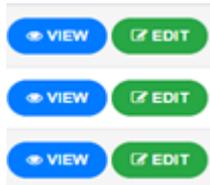
The screenshot shows the Carelink admin interface. The left sidebar contains navigation options: Dashboard, PROFILE INFORMATION, Edit PwD (highlighted), Add PwD, and VISUALISATION. The main content area shows the 'Edit PwD' page with a table of PwD records. The table has columns for NAME, ADDRESS, EMAIL, and PHONE. Each row includes three action buttons: ZONES, VIEW, and EDIT. The buttons are circled in red.

NAME	ADDRESS	EMAIL	PHONE	ZONES	VIEW	EDIT
jk@test.com	-	jk1@test.com	0845411477			
ken	fr fv fvf	Ken@test.com	2343242			
Kevin	-	a@b.com	-			

- Every row has zones, view, and edit buttons.

Person with Dementia View and Edit

- The view and edit PwD list modals are both accessible from the PwD list view.

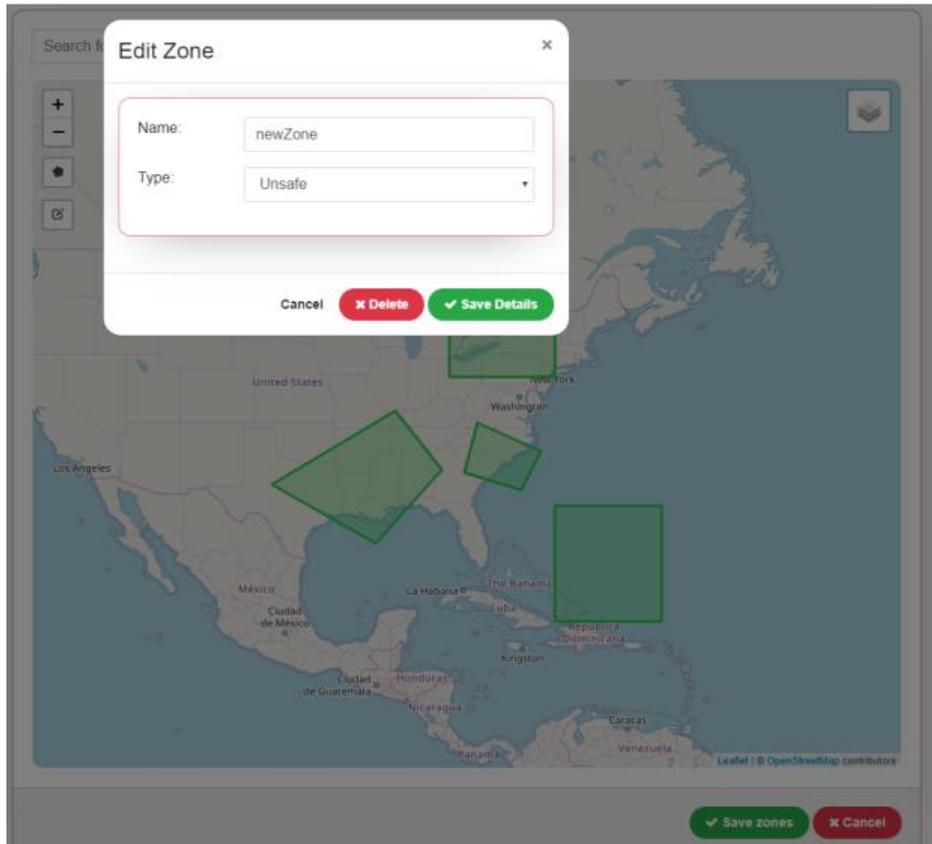
A screenshot of a modal form for editing a person with dementia's details. The form contains the following fields:

- First Name: [Empty text input]
- Last Name: [Empty text input]
- Email Address: [Text input containing 'jk1@test.com']
- Address: [Empty text input]
- Phone: [Text input containing '0845411477']

Below the fields is a light blue rounded rectangle containing the text "There are no devices." At the bottom right of the modal are two buttons: a grey "Cancel" button and a green "Save Details" button with a checkmark icon.

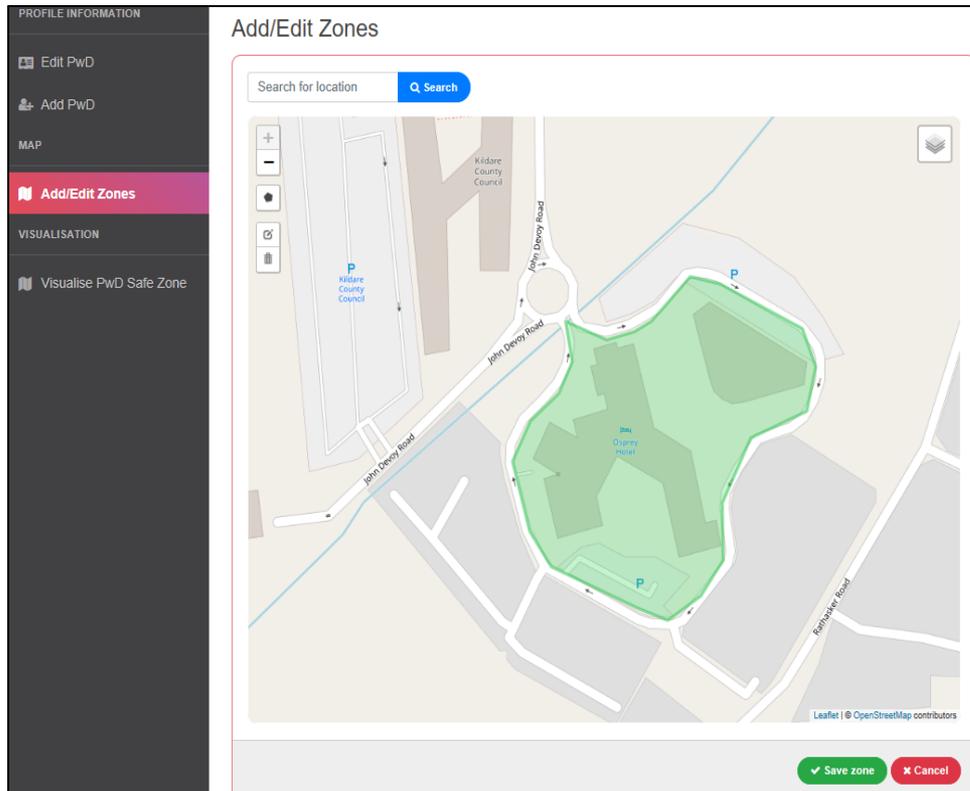
- The **view** exhibits the form with prefilled selected PwD's information.
- The **edit** opens the selected PwD information edit modal.

Person with Dementia Zones



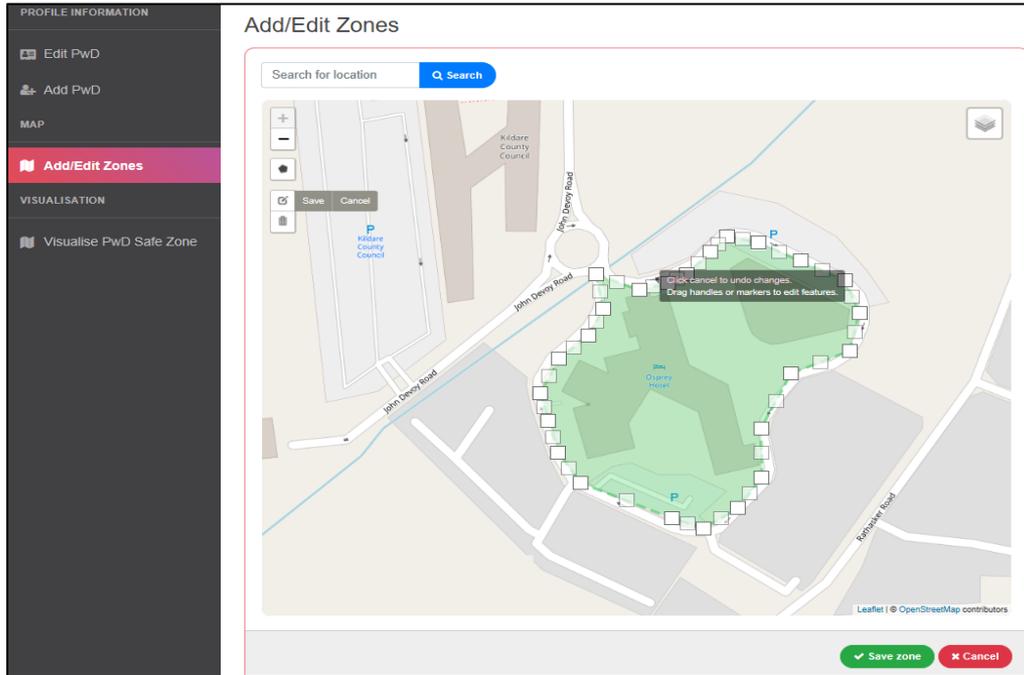
- Edit zone enables you to add and save the zones, and also denote them as safe and unsafe zones for the PwD to walk in.

Add Zone



- The Add Zone screen allows you to define a zone on an interactive map.
- This zone can be drawn by using multiple points on the map to define a boundary.

Edit Zones



- Definition of the zones can be edited if required.

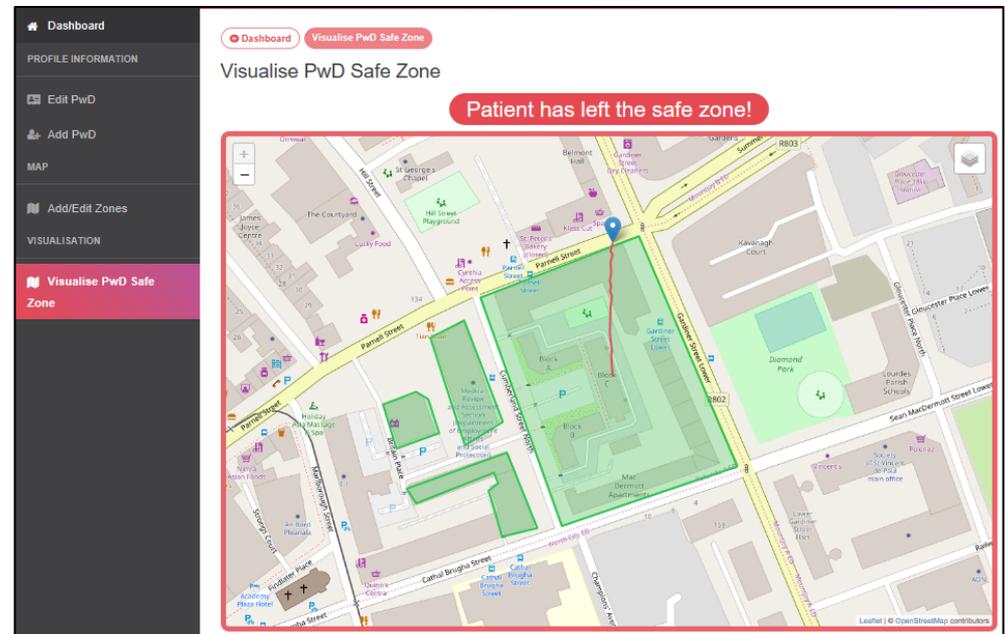
- Therefore, you have the choice to redefine the zones.

Visualizing Safe Zones

- In this picture, the safe zones are illustrate by green color, and the PwD is represented by a blue icon on the map.

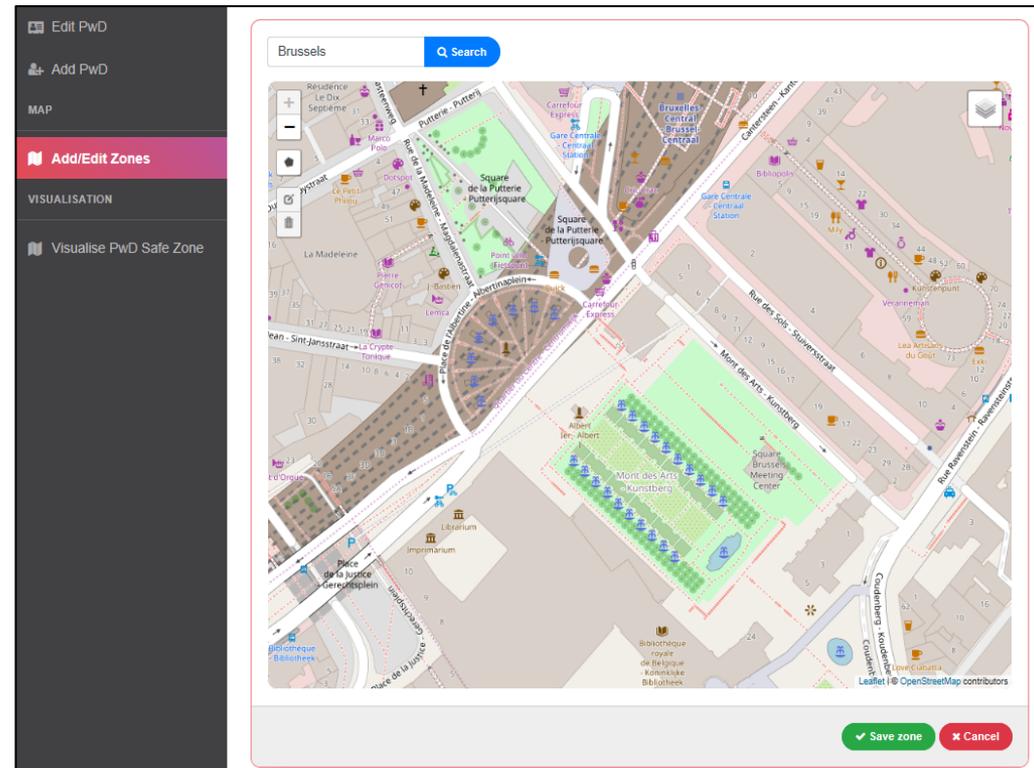
- An Alert will be raised if the blue icon crosses the specified safe boundaries.

- So, it shows that the PwD is at the risk of wandering.



Search for Location

- The search function allows you or family of the PwD to search by street name on an interactive map.



How to Use CARELINK

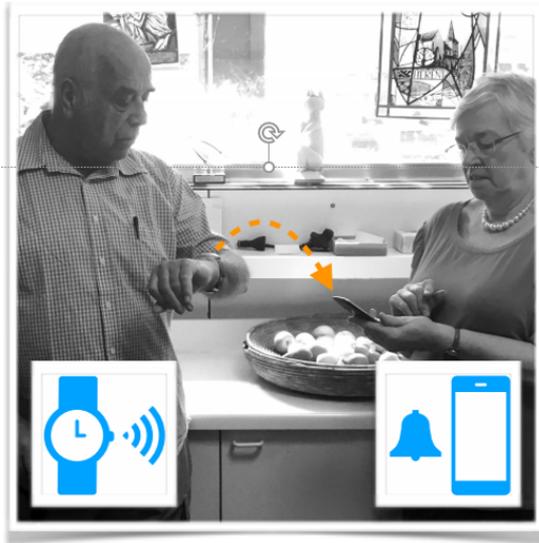
- In the following slides, we will explain (in some steps) how can you use the CARELINK service and benefit from.
- Initially, you need to provide the following devices:
 - 1) A computer (laptop / PC),
 - 2) A tracking device (e.g., wristband) for the PwD, and
 - 3) A smartphone for yourself.



How to Use CARELINK (*Step 1*)

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

- In the first step, you should active your smartphone.
- You can also help the PwD to wear his/hep tracking device, and make sure it is activated.



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

GUI with the activation procedure

The screenshot displays a web application interface for editing a user's profile. A modal window titled "Edit PwD" is open, showing the following details:

- Email Address:** patient@carelink.com
- Username:** patient
- Address:** Arclabs, Carriganore
- Phone:** +353 51 000001

The modal also includes a "Devices" section with a "+ NEW DEVICE" button and a table listing a device:

NAME	ACTION
carelink bracelet	[EDIT] [DELETE]

At the bottom of the modal, there are buttons for "- Delete PwD", "Cancel", and "✓ Save Details".

The background page shows a user profile for "patient" with the same address and phone number, and a "Manage" button.

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, the PwD could go out and walk first in the safe zone.
- Then, he can move to the unsafe zone for checking the reaction of CARELINK services.



How to Use CARELINK (Step 3)

- **Step 3: You will receive a notification.**



- Upon he enters to the unsafe zone, you will receive a notification in your smartphone.

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



How to Use CARELINK (Step 4)

- **Step 4: Looking for to find the PwD.**

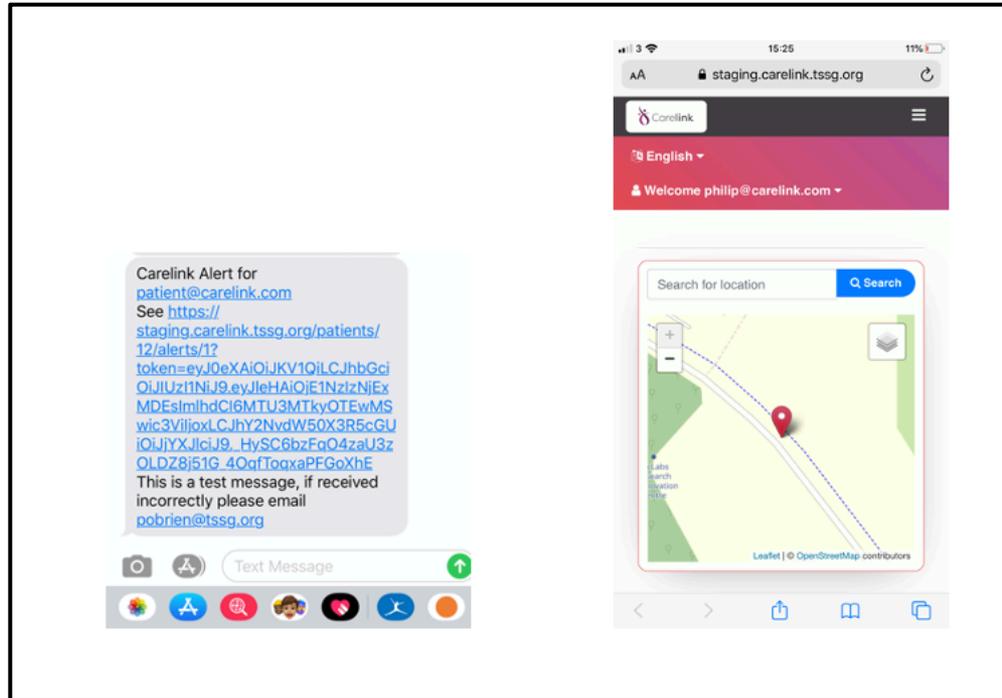
- In this step you will go looking for the PwD with your smartphone.



- On your smartphone, the app shows his real time location.



GUI with the tracking map to the patient



How to Use CARELINK (Step 5)

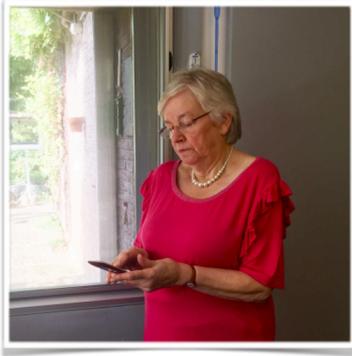
- **Step 5: Finding the PwD.**

- In this step you will find and approach him, and
- You go along with his story and bend him, in such a way that you follow his back home.

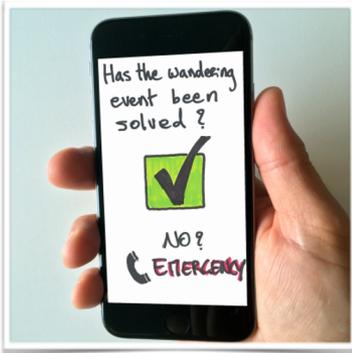


How to Use CARELINK (*Step 6*)

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

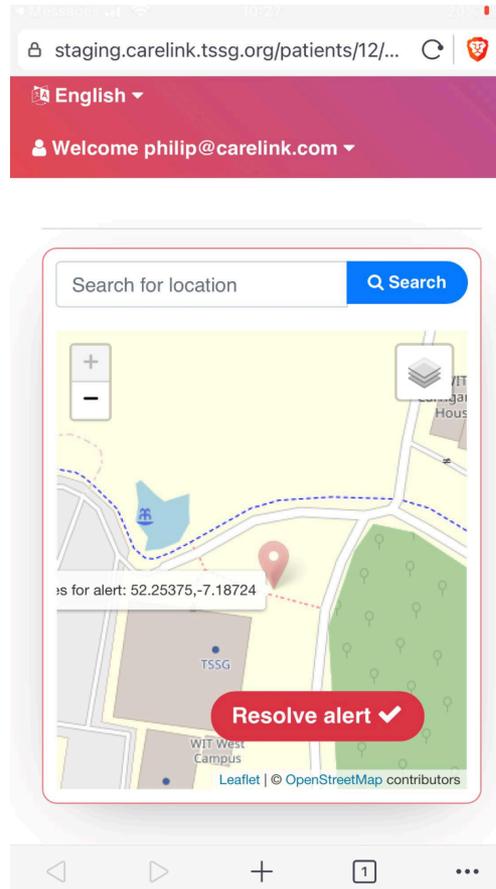


- In this step you two will back home, and the CARELINK app asks you whether the wandering event has been solved or not.



- You will then mark the event as "solved".

GUI showing the problem being deactivated



Questions

1. **What is the aim of CARELINK training programme?**
 - A) Providing some modules offering materials to guide and educate caregivers and PwDs (**True**)
 - B) Providing a number of tutorial classes
 - C) It provides you a training certificate
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. **When a wandering occurs, who can provide support?**
 - A) Only caregivers
 - B) Who has installed CARELINK app and informed about (**True**)
 - C) Only community members and caregivers
 - D) Only caregivers and neighbors



5. Conclusion

Conclusion



- This module is meant to offer some general information about dementia, wandering and related issues and also CARELINK solutions.
- The module by providing simple and easy understandable material tries to help family members, carers, and community members to gain better insight about the syndromes, symptoms, reasons, and the side affects of both dementia and related wandering.
- The CARELINK is introduced to reduce the stress of caretakers by presenting some smart, adaptive, and low-cost devices and solutions.