# REMEDIES Shoreline ML App

## Step-by-step Tutorial

## 1. Getting Started

### 1.1 Install the REMEDIES Shoreline ML App

**Step 1.** Before signing in, install the REMEDIES Shoreline ML App on your mobile device. The app is compatible with Android and Apple devices and can be installed by using the corresponding stores. Scan the relevant QR Code below: use the Google Play QR Code for Android devices or the App Store QR Code for iOS devices. Once the installation is complete, open the app and proceed to the login screen.


*Figure 1 - QR Code for REMEDIES Shoreline ML App on Google Play*


*Figure 2 - QR Code for REMEDIES Shoreline ML App on App Store*

### 1.2 Sign in to the REMEDIES Shoreline ML App

**Step 2.** Open the REMEDIES Shoreline ML App and use the login screen to sign in. The REMEDIES Shoreline ML App facilitates the management of monitoring activities associated with marine pollution. Integrated with the REMEDIES Portal, this app is tailored for use by marine scientists and in citizen science initiatives.

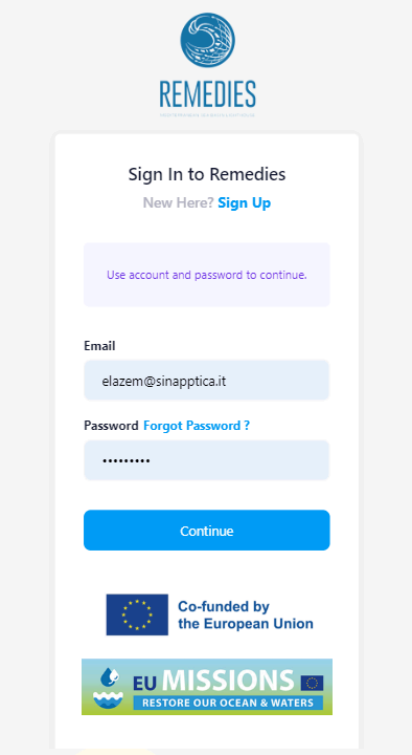


*Figure 3 - REMEDIES Mobile App login screen (REMEDIES App screenshot)*

## 1.3 Consult EMODnet Monitoring Events

**Step 3.** From the main app screen, consult upcoming monitoring activities, those currently in progress or awaiting review for completion. The complete monitoring data can be accessed through the dedicated function “show archived”.

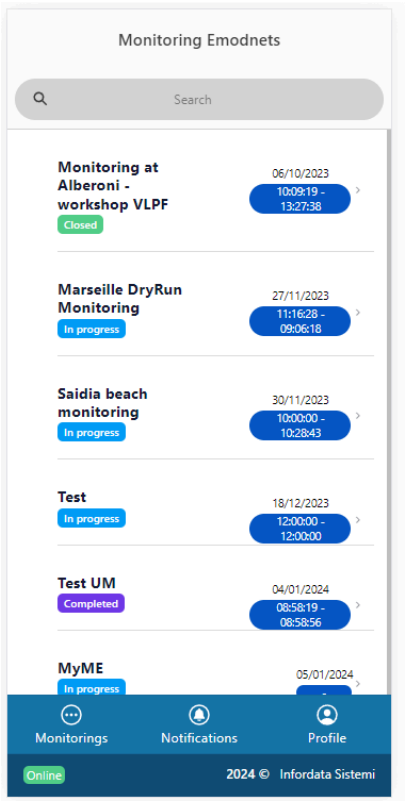


*Figure 4 - REMEDIES Mobile App: list of Beach Litter Monitoring Events (REMEDIES App screenshot)*

# 2. Setting the Zone

## 2.1 Open a specific monitoring item

**Step 4.** Choose a specific monitoring item from the list. A detailed view of that Monitoring Event spreads out. This view includes various monitoring features and general event metadata, including Monitoring Date and Start Time, Related Beach, Description, Organisation, Start Position, End Position and Picture of the Beach/Monitoring Zone.

## 2.2 Use the Setup Monitoring Zone function

**Step 5.** In this section, use the special function to set the Start and End Positions of the monitoring zone, using a mobile device's location feature.

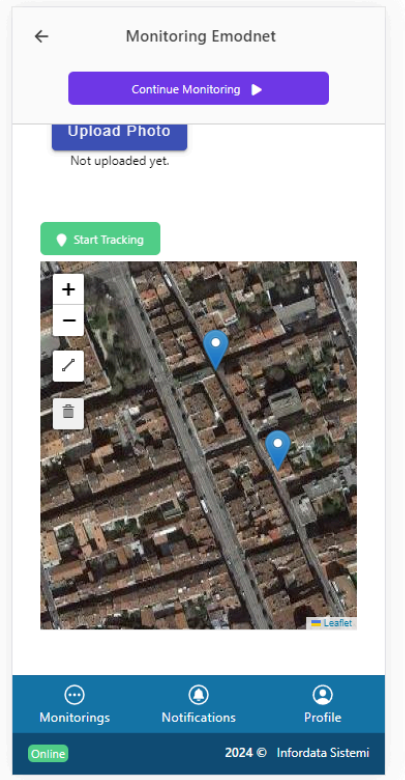


*Figure 5 - Map with mark points of 100m monitoring zone (REMEDIES App screenshot)*

## 2.3 Set the 100 metres transect

**Step 6.** Use the interactive graphical tool to set the transect of the monitoring Zone, adhering to the EMODnet protocol's specified length of 100 metres. There are three optional methodologies for configuring the 100 metres:

- Manually inserted the GPS coordinates: Start latitude (decimal), Start longitude (decimal), End latitude (decimal), End longitude (decimal).
- Click on Start Tracking. Upon activation of the GPS positioning tracking, walking can be initiated, and after covering 100 metres, the device will vibrate to signal the completion of the specified distance.
- Set the 100m length by clicking on the map. On the map, the GPS position of the device is highlighted with a mark point. A circle with a 100m radius is drawn on the map to assist the user in selecting the direction and position of the end GPS position. Click on the circle border, for example left or right side, to set the end point, 100m far from the central mark point.

**Note:** To utilise the Start Tracking function, it is necessary for the GPS signal to be of good quality; check the corresponding indicator. If a measurement has already been taken, a warning message will alert that proceeding further will result in the loss of the previous measurement. If necessary, the user will be asked by the device to authorise the App to access and utilise the user's GPS position, enabling it to proceed.

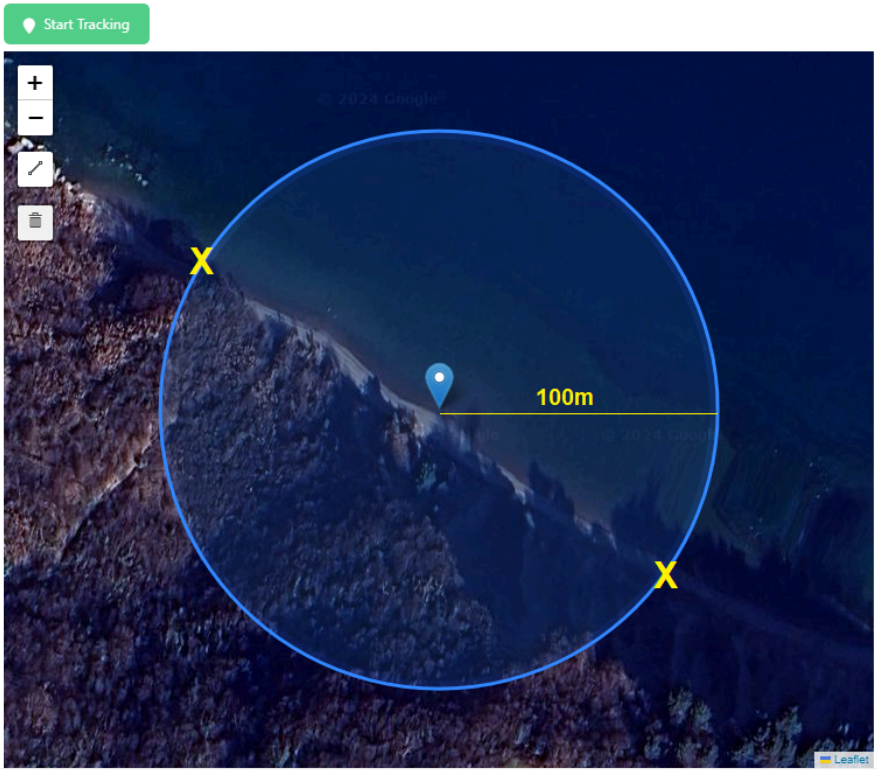


*Figure 6 - Tool to set on map 100m distance for monitoring zone (REMEDIES App screenshot)*

# 3. Counting Litter

## 3.1 Use the main EMODnet Monitoring Section

**Step 7.** The main EMODnet Monitoring Section offers different tools to facilitate the inventory of ML litter.

## 3.2 Search and filter ML litter items

**Step 8.** Use the ML search box to search the litter items by J or G code, Litter name, Litter description and Meta tag, defined in backend in litter update view. The search box is based on a ML/Statistical engine that manages advanced indexing of database results.

**Step 9.** Use the filter litter function to search monitoring items based on a text input. The search is conducted across litter.j_code, litter.tags, litter.name and fullPhrase. The function utilises the Fuse library's options, including tokenization for exact phrase matching, and the search results are then mapped to the filteredLitterItems array.

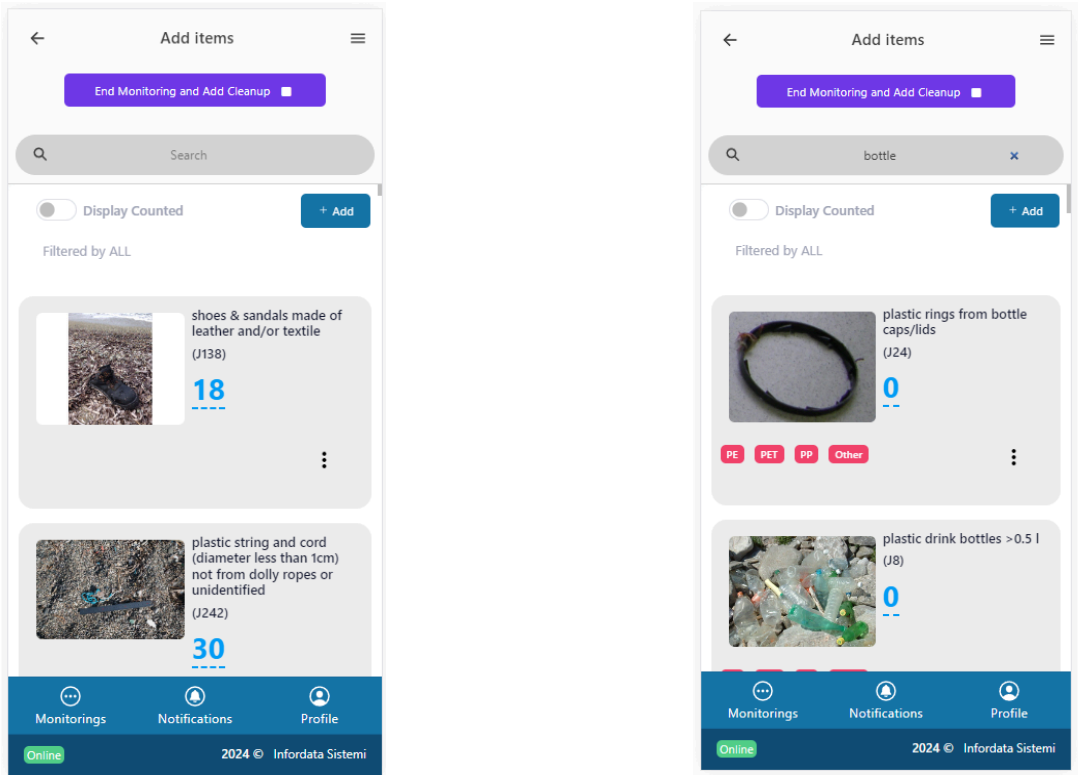


*Figure 7 - Beach Monitoring Event: litter counting tool with filters (REMEDIES App screenshot)*

## 3.3 Navigate by litter category and add quantity

**Step 10.** In the mobile app, the button located in the top left corner enables access to the menu featuring various litter categories. Once a specific category, such as “Plastic litters”, is selected, the app will filter and display only items associated with that category in the main litter list. For instance, selecting “Plastic litters” will result in only items related to this category being shown in the main view.

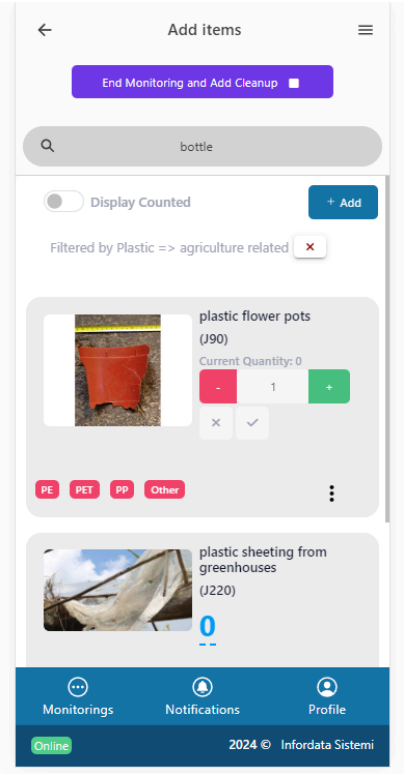


*Figure 8 - Litter categories side menu and litter quantity addition tool (REMEDIES App screenshot)*

# 4. Handling Unknown Items

## 4.1 Create a new Uncategorised item

**Step 11.** When the litter item cannot be identified directly from the available list, create a new Uncategorised item. Use the Uncategorised litter photo upload and attribute description screen to add a photo and describe the item attributes.

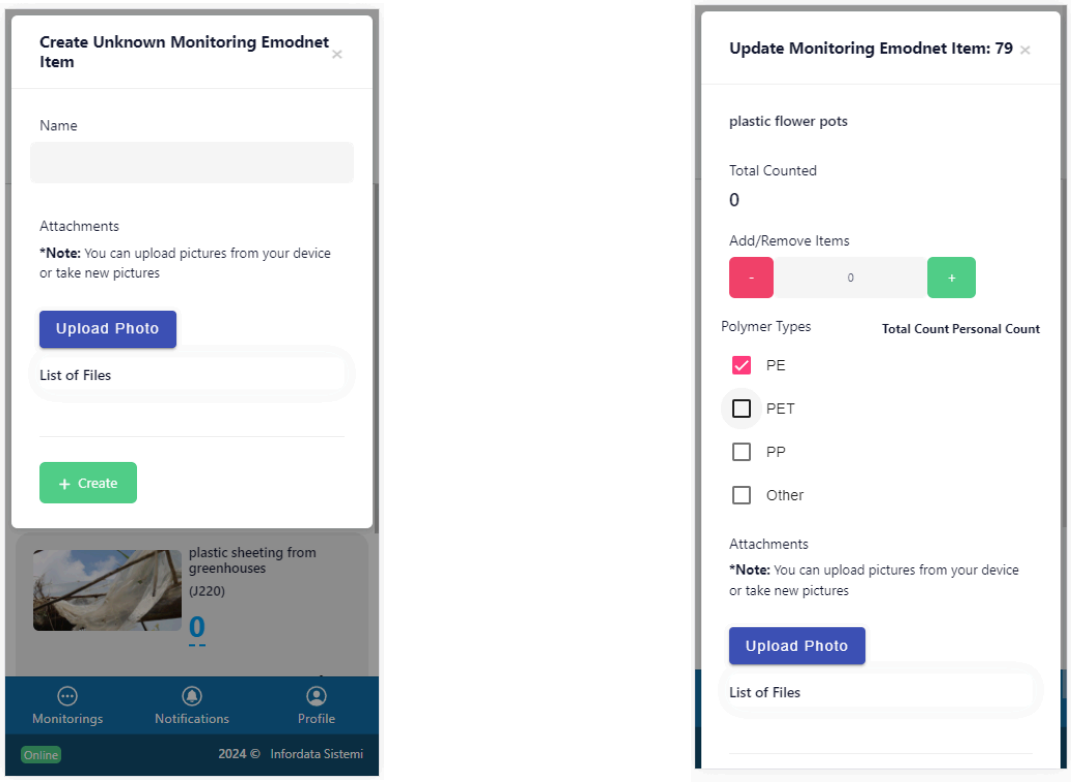


*Figure 9 - Uncategorised litter photo upload and attribute description (REMEDIES App screenshot)*

## 4.2 Use notifications to process Unassigned Litter Items

**Step 12.** Notifications are managed with Firebase Cloud Messaging (FCM) and are fired to all active users/devices when a new Unassigned Litter Item is created. The function aims to request other users support in the identification of the new Unassigned (unidentified) Litter.

**Step 13.** System users, by opening the notification, can set the related litter item from the Joint MI List. By clicking on the “uncategorized” item in the list the related litter can be selected.

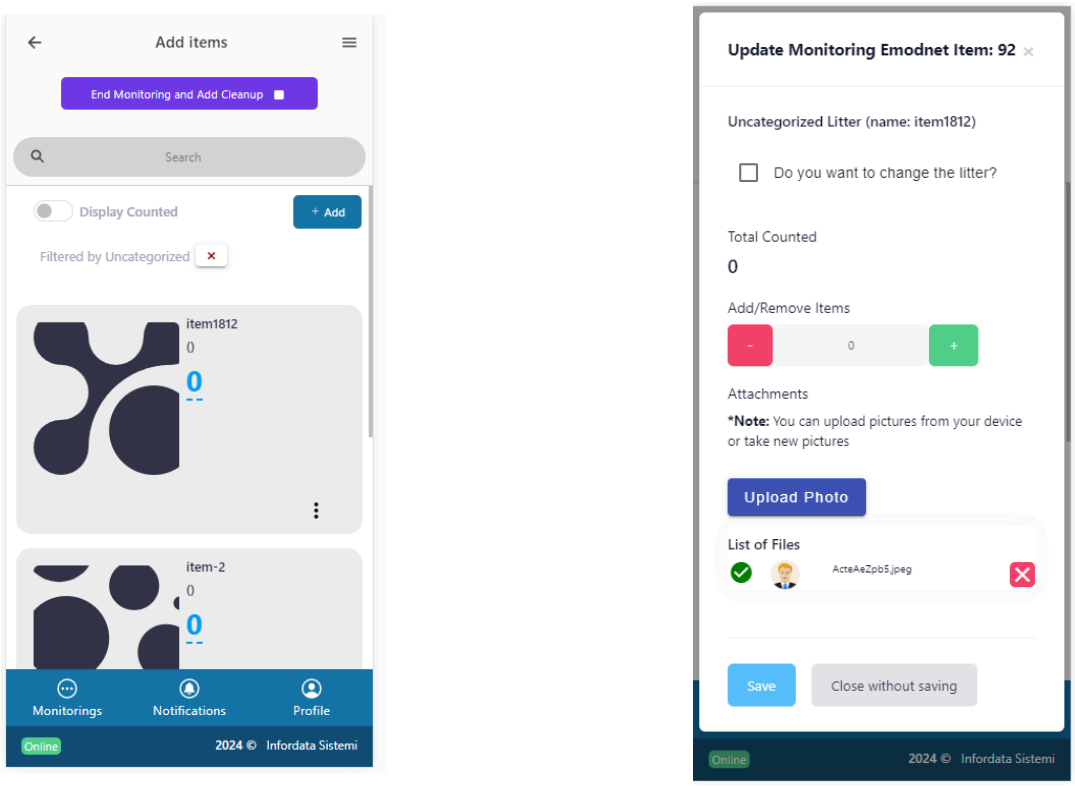


*Figure 10 - Uncategorised items: assign official litter category (REMEDIES App screenshot)*

# 5. Submitting Data

## 5.1 Complete clean-up and participant data

**Step 14.** Before review, complete the clean-up and participant data section shown in the Beach Litter Monitoring screen. This is part of the monitoring metadata that can be reviewed before submission.

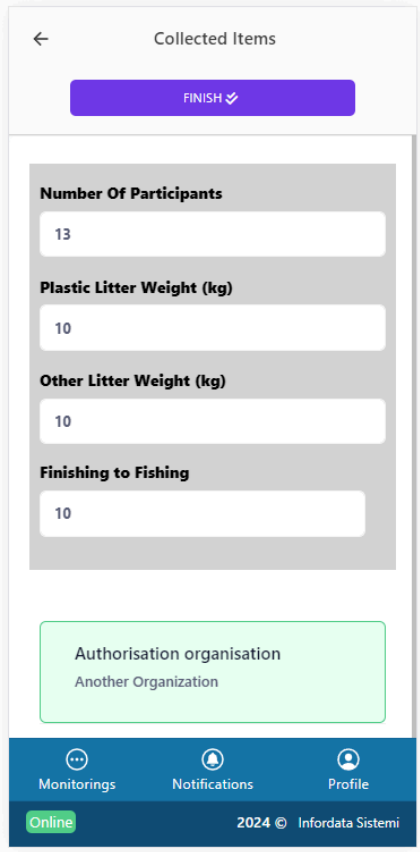


*Figure 11 - Beach Litter Monitoring: clean-up & participant data (REMEDIES App screenshot)*

## 5.2 Review and submit the data

**Step 15.** Upon completing the EMODnet Monitoring Survey, the App displays a summary of the activity. By expanding specific tabs, users can consult details about the litter items inventory and other metadata.

**Step 16.** During this review process, users can revisit the litter item lists or other metadata sections to make corrections if necessary. Additionally, there is an option to export the data to an Excel spreadsheet.

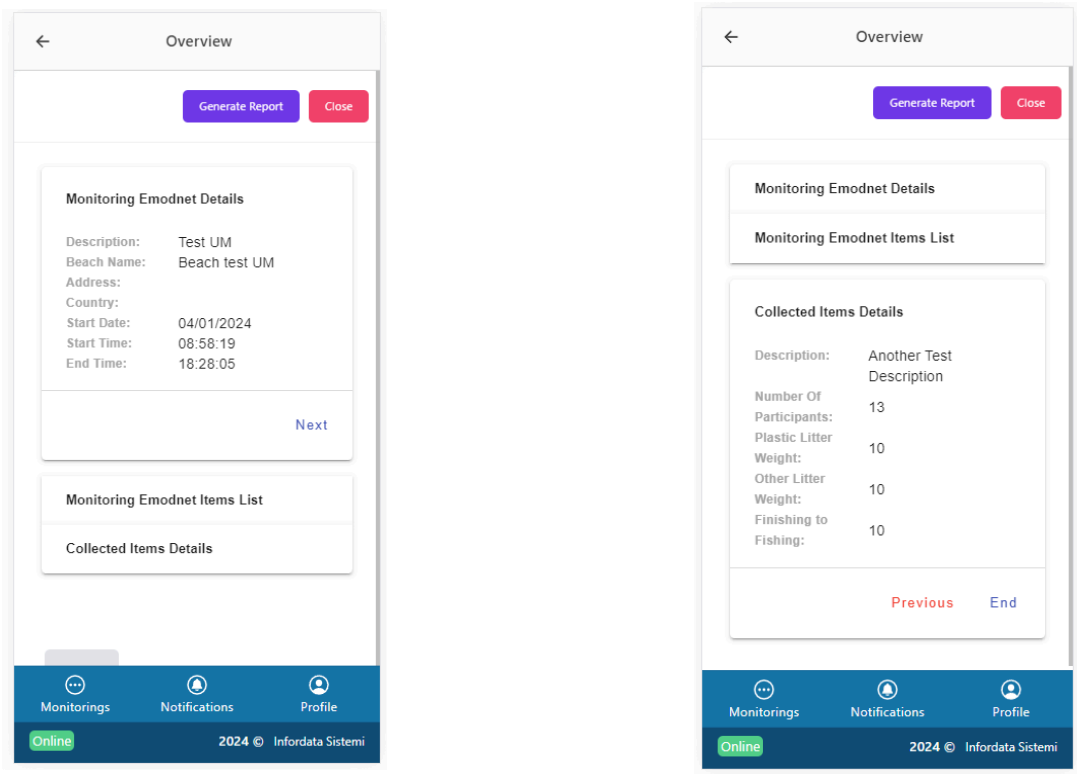


*Figure 12 - Summary of Beach litter monitoring items (REMEDIES App screenshot)*