



# City'R'US

A City Reporting application  
used for improving Urban Services



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**SCIFY**  
SCIENCE FOR YOU

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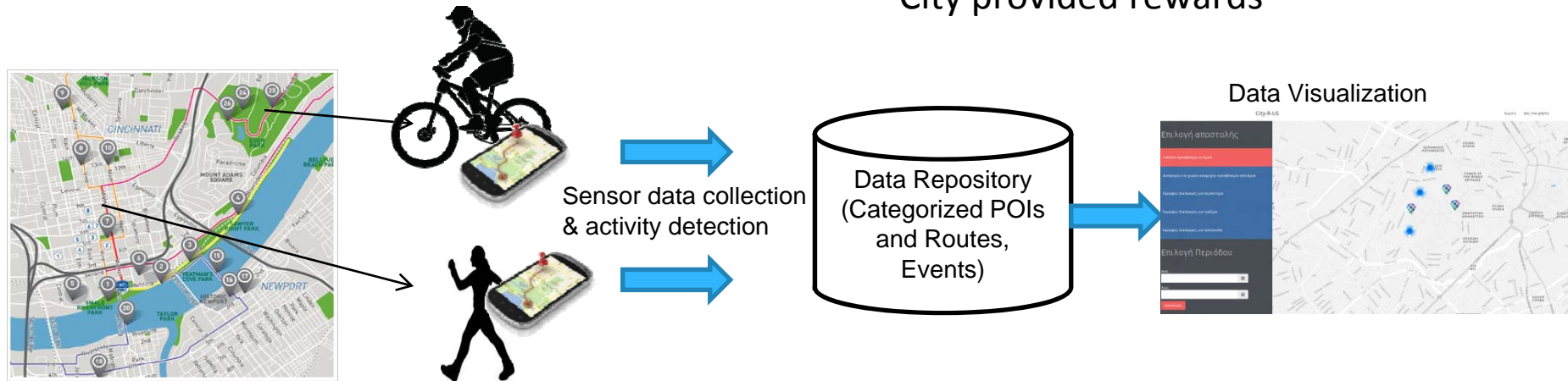
# Introduction

- People daily move around the city but also seek for places to hang out, meet other people, exercise or get amused
- They want their city to listen to citizens' pulse
- However, smart city solutions
  - Require large investments on infrastructure (sensors, network, big data analytics)
  - Monitor things (automobiles, buildings etc) but fail to track humans
  - One solution for all citizens
  - Citizens' individual needs are neglected



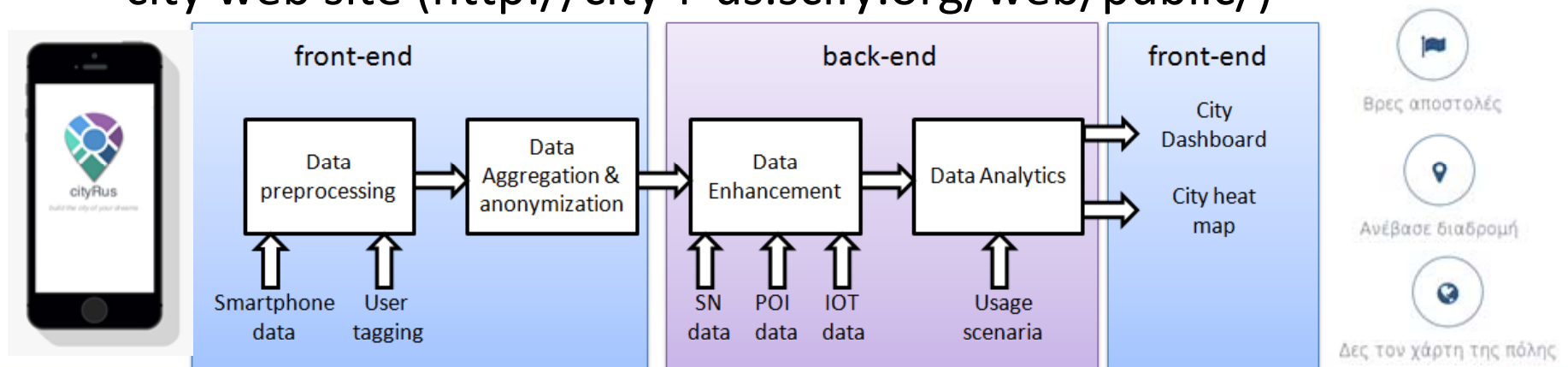
# Solution

- Use smartphones
  - Minimize cost for sensors
  - Collect location and movement data from smartphones
  - Categorize user contributions by type: routes, points of interest
  - Crowdsourcing
- Motivate citizens
  - Collective information is available for all
  - Access to open data (events & POIs)
  - Targeted missions for information collection
  - Virtual credits for contributors
  - City provided rewards

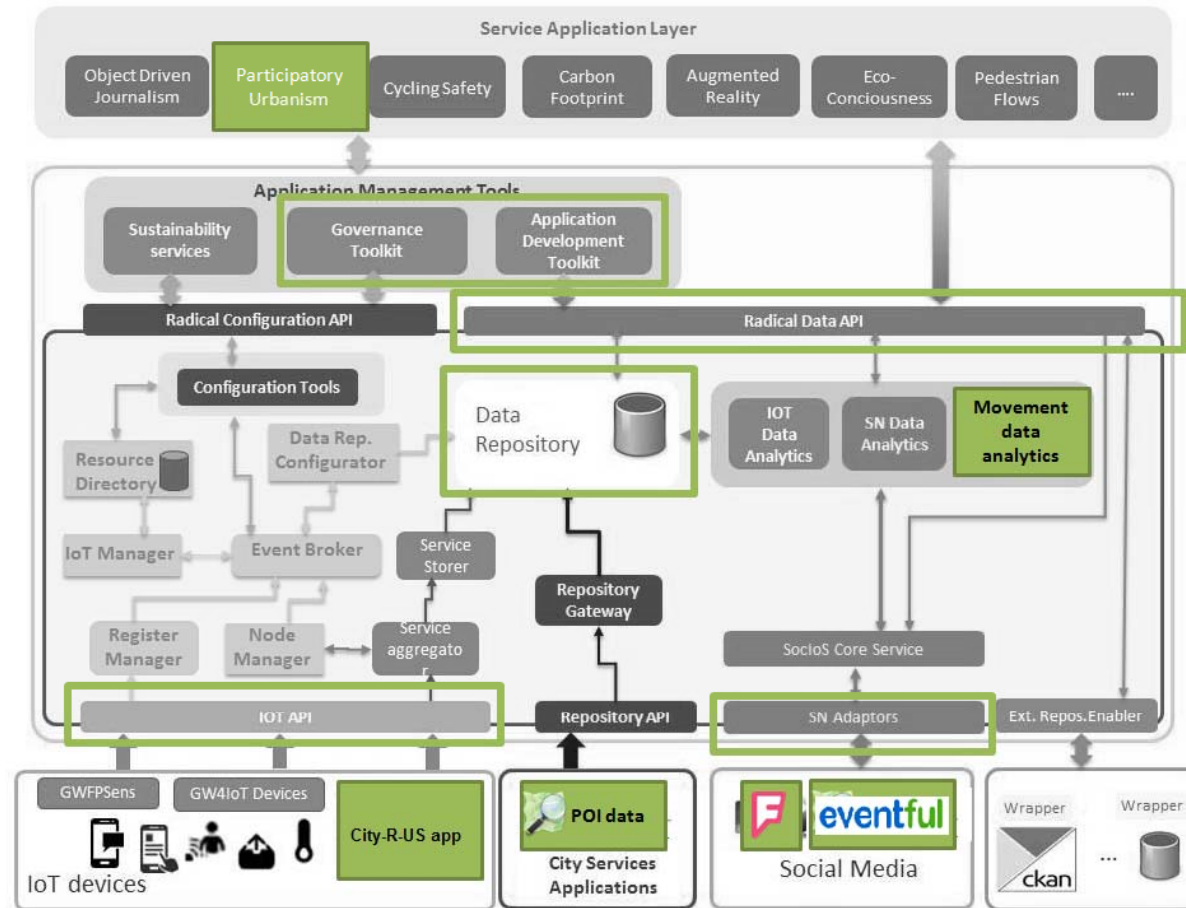


# Architecture overview

- Data is collected by citizens that use City'R'US smartphone app
- Data is stored and enhanced in the backend using RADICAL APIs
- Mission management and Data visualization is done in a city web site (<http://city-r-us.scify.org/web/public/>)



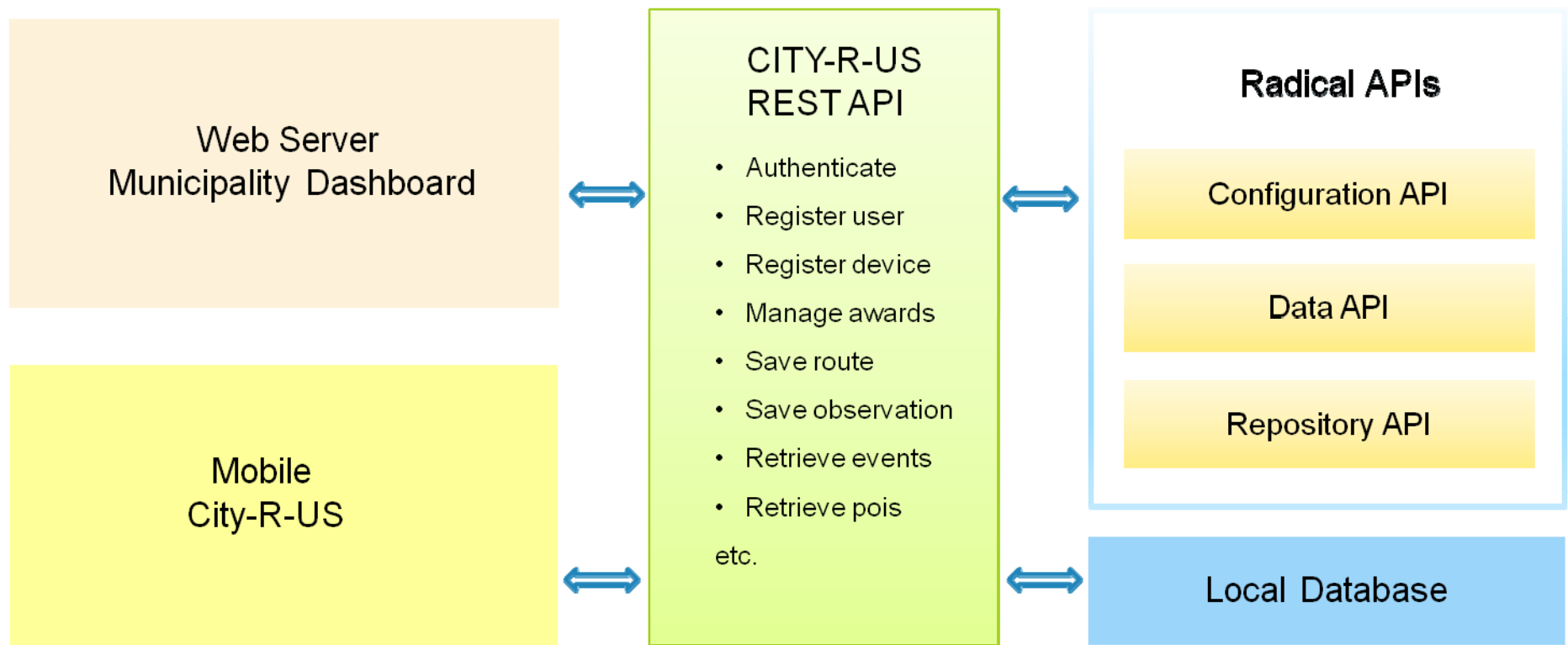
# RADICAL – The heart of City'R'US



<http://www.radical-project.eu/platformandservices/radicalplatform/>



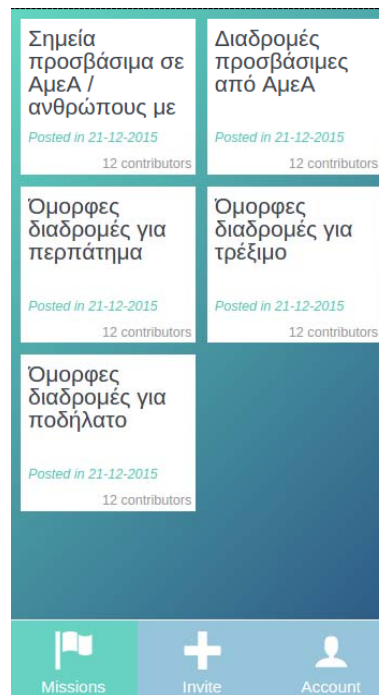
# Service Architecture



# Gamification features

- Missions

- Small data contribution (collection) challenges, defined by the municipality and carried out by citizens
- Have a special cause/interest
- They run for a predefined limited period, or they can remain open for a long time.
- Contributed data can be location or route and is collected when the citizen is in the location or moves along the route.



- Rewards

- A virtual crediting system is used as a motivation for users to participate and contribute.
- Highly ranked citizens or citizens groups can be invited to city's council meetings, or appoint the mayor.
- Smaller rewards can be used to promote public transportation schemes, e.g. free tickets to the citizens that decide to leave their car and use public transport.



# Missions

- They follow a **top-bottom** logic, and are **set-up by the city authorities**, that want to collect information for improving city planning and services.
- Based on collected information, city administrators can decide where to create a new facilities.
- A **bottom-up** approach is also supported. **Citizens can suggest a mission** through the smartphone app, and so can do the members of a group of special interest. When many citizens ask for a mission, the city administrators can set the mission to the public and start collecting information about places or routes.
- Users are self-motivated to contribute to a mission, or are invited to participate by fellow members of the same group of interest in the real world.





# The gains

- For the city

- Analyze the data to intervene when/where needed
- Check validity of the provided content
- Respond immediately/  
Redesign services (add ramps to ease access to places).

- For citizens

- They can see what other citizens have contributed and discover new places within their city.



- They can share their location and movement information with other citizens and work in groups in order to maximize the impact



- They can suggest a mission



# Municipality Dashboard

## Create and Manage missions

The screenshot displays the 'City-R-US' Municipality Dashboard. The main header includes the logo and 'City-R-US', along with navigation links for 'Αρχική', 'Αποστολές', and 'Χρήστες'. The user is logged in as 'Αποσύνδεση'.

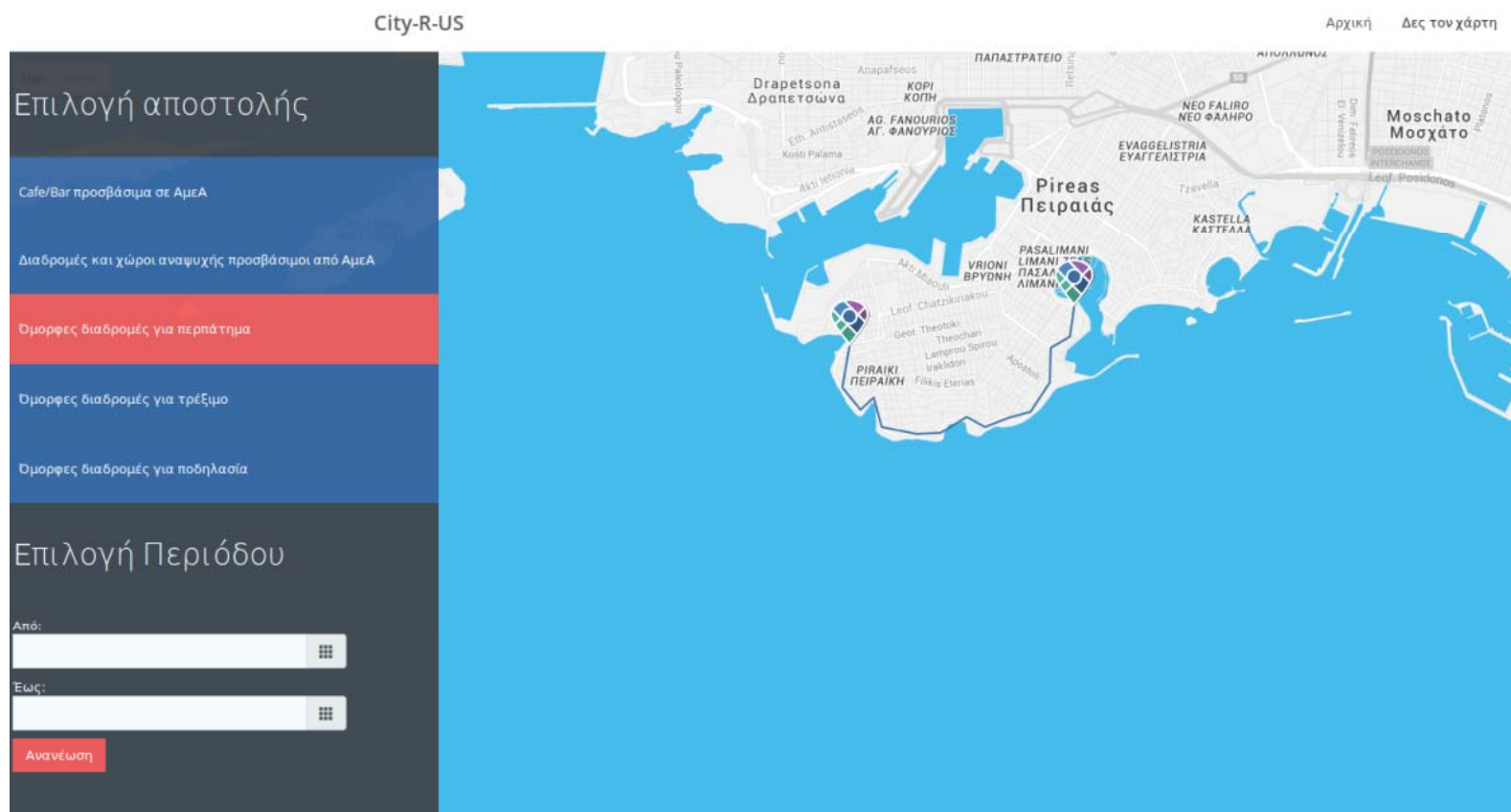
The dashboard is divided into two main sections:

- Δημιουργία Αποστολής (Mission Creation):** This section contains a form with the following fields:
  - Όνομα: \*** (Name): A text input field with the placeholder 'Mission name'.
  - Τύπος αποστολής \*: \*** (Type): Radio buttons for 'Διαδρομή' (Route) and 'Καταγραφή σημείου στο χάρτη' (Map point recording), with the latter selected.
  - Περιγραφή: \*** (Description): A large text area with the placeholder 'description of the mission'.
- Αποστολές (Missions):** A grid of four mission cards, each featuring a target icon and the following details:
  - Card 1:** 'Cafe/Bar προσβάσιμα σε ΑμεΑ' (Accessible Cafe/Bar for PwA). Type: 'Καταγραφή σημείου στο χάρτη'. 0 συμμετέχοντες.
  - Card 2:** 'Διαδρομές και χώροι αναψυχής προσβάσιμοι από ΑμεΑ' (Accessible routes and recreation spaces for PwA). Type: 'Διαδρομή'. 0 συμμετέχοντες.
  - Card 3:** 'Όμορφες διαδρομές για περπάτημα' (Beautiful routes for walking). Type: 'Διαδρομή'. 0 συμμετέχοντες.
  - Card 4:** 'Όμορφες διαδρομές για τρέξιμο' (Beautiful routes for running). Type: 'Διαδρομή'. 0 συμμετέχοντες.

A green 'Αποθήκευση' (Save) button is located at the bottom right of the mission creation form.

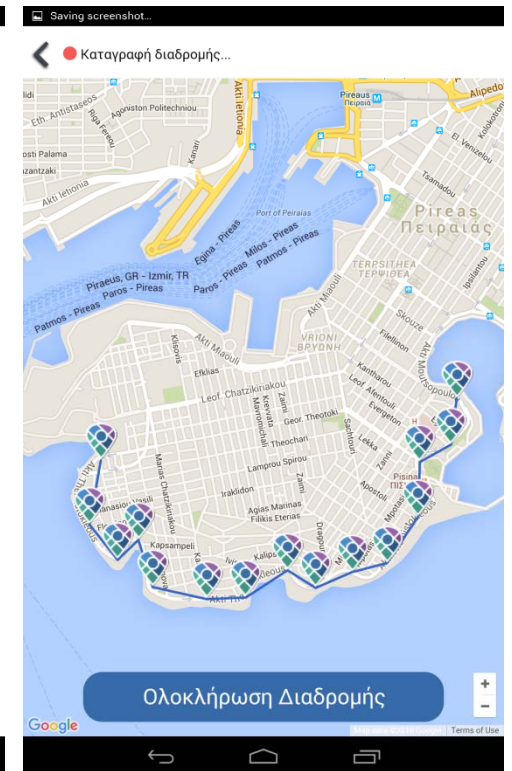
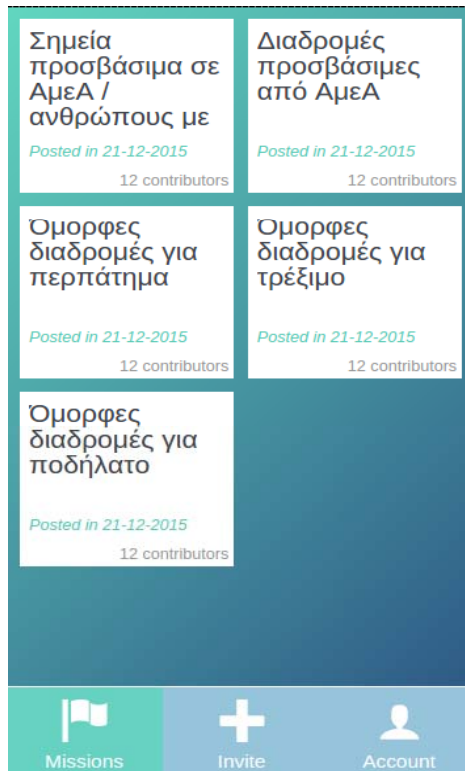
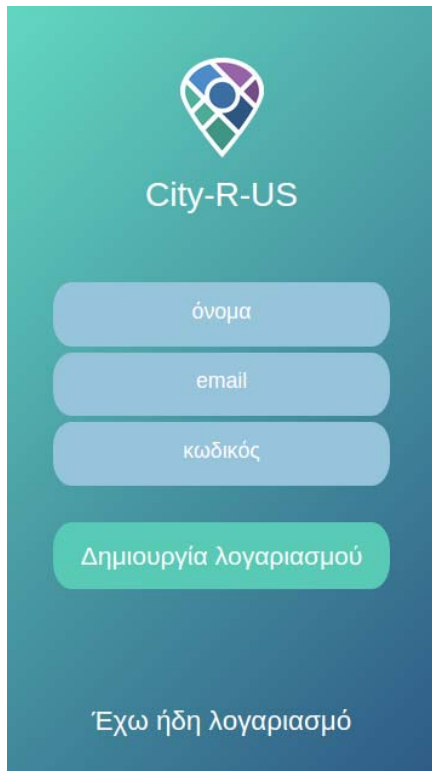


# Municipality Dashboard Mission Heat Map



# Mobile application

## Register - Select Mission- Contribute - Tag



# Mobile application

## Invite users

Διασκεδάσετε;  
Προσκαλέστε τους  
φίλους σας...

### Μήνυμα

Γράψτε το μήνυμά σας:

Θα ήθελα να σε προσκαλέσω στην εφαρμογή  
City-R-US.

### Email

Email φίλου

Προσκάλεσε



# Future work

- Citizens
  - Include support for event suggestion
  - Support tagging of problematic points and the ability to add a picture and a description for extra functionalities to be added.
  - Provide alerts for delays and congestions
- City
  - Analytics on how citizens move around the city
  - Integrate data collected from a related mission to the existing city CRM
- NGOs/NPOs
  - They can use it as a spot-recording tool for their members only.
  - City-Reporting-as-a-Service: Citizens' groups join, create missions and collect data of interest by motivating their own members. So they can have access and analytics to these data.



# Thank you!

## Questions?

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