

# First Italian Citizen Science Conference

## *Setting paths in citizen science: biodiversity, networks, open science and platforms*

Rome, November 23-25, 2017

### ABSTRACT

**TITLE**

(TNR, 12 cpi, bold, uppercase, no justify)

**AUTHOR/S**

(TNR, 10 cpi, uppercase)

**INSTITUTION/S**

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**KEYWORDS**

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**TEXT**

(TNR, 10 cpi, justify)

TNR: Times New Roman

**SESSION  
NUMBER**

(only one, as listed in the conference programme, otherwise put X)

4
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**PRESENTATION  
FORMAT**

oral	X
Poster	

**SCENT CITIZEN OBSERVATORIES: CONSIDERATIONS ON THE USE OF GAMIFICATION IN CITIZEN SCIENCE PROJECTS**

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*gamification, citizen observatories, alternate reality games, environmental monitoring, citizen engagement*

This presentation will provide some preliminary considerations on the use of gamification for engaging users in citizen science projects. The considerations will be based on our experience in SCENT, an EU-funded project now entering its second year. Through a constellation of smart technologies – including web-based platforms, mobile applications and sensing kits – SCENT enables citizens to actively contribute to the collection and interpretation of information on land-cover and land use. Citizen-generated knowledge is combined with data from authoritative sources, in-situ sensors and information generated through advanced artificial intelligence tools. In one of the use cases of SCENT, citizens download a free mobile application and participate to a game where they have to visit specific geographic areas (e.g., the Danube Delta or the Attica Kifisos river), find specific objects (e.g., vegetation in the river bank, waste and brought materials in the manholes, tree banks/branches, dustbins, cars and vehicles along the river bank or in smaller streams connected to the main river) and take and annotate pictures. Pictures annotated by the users are sent to a cloud-based engine for further processing and then they can be uploaded onto existing earth observation repositories, such as GEOSS.

The major challenge of initiatives like SCENT is how to secure the continuous participation and commitment of the citizens. SCENT leverages proven gamification mechanisms (incentives, goals, change of levels, points, badges, etc.) to ignite and secure the interest of the citizens over time.

In this presentation for the First Italian Citizen Science Conference, we would like to (1) share the results of an analysis we conducted on select video games already developed by third parties, mostly in the area of environmental sustainability and water management and/or based upon crowd-sourcing processes, and (2) show how the best practices emerging from this analysis have been used to design and implement the SCENT applications.

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