

CITIZEN SCIENCE

SDG

CONFERENCE

14.–15.10.2020

Knowledge for Change: A decade
of Citizen Science (2020–2030)
in support of the Sustainable
Development Goals

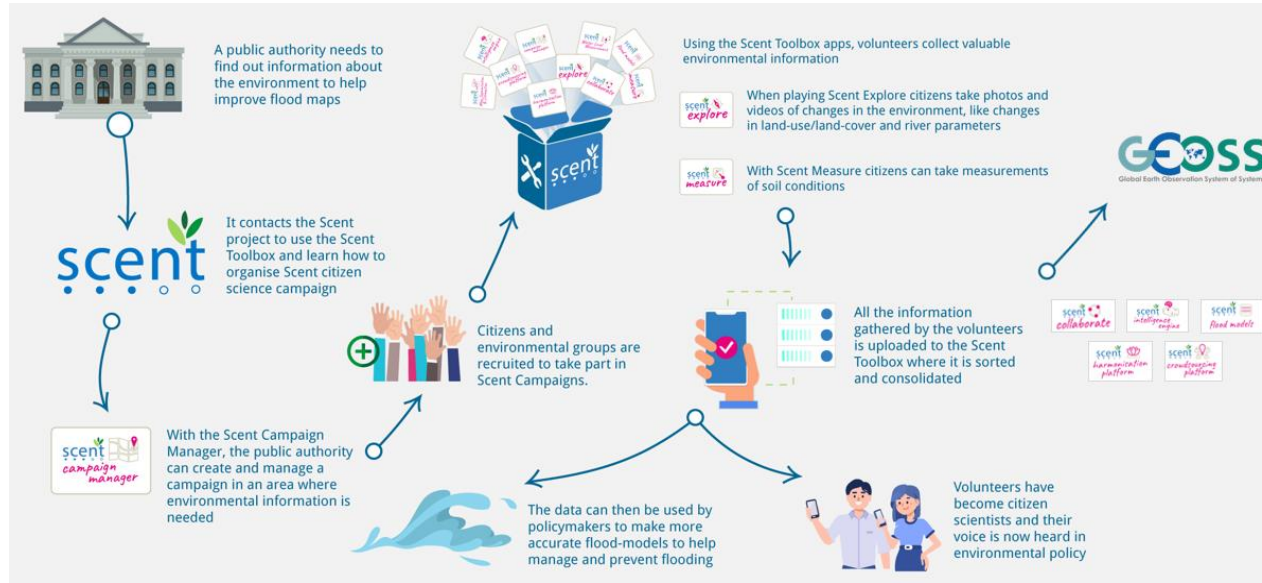


Citizens in the epicenter: Smart technologies in the service of citizen-driven flood monitoring and management

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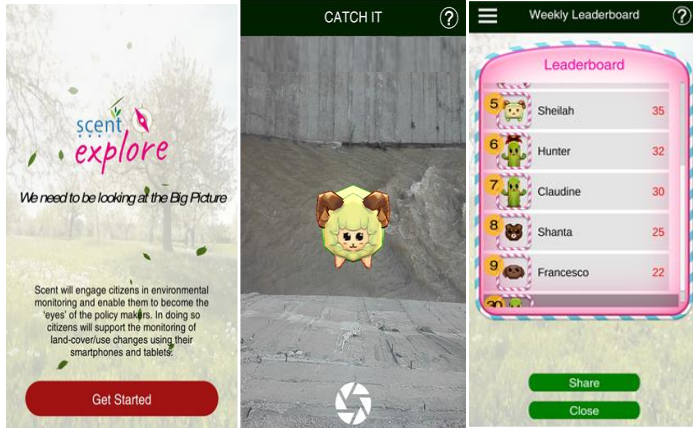
What is Scent about ?

EU-funded Horizon 2020 project engaging citizens in environmental monitoring of land-cover/use changes using a unique toolbox of user-friendly tools and technologies

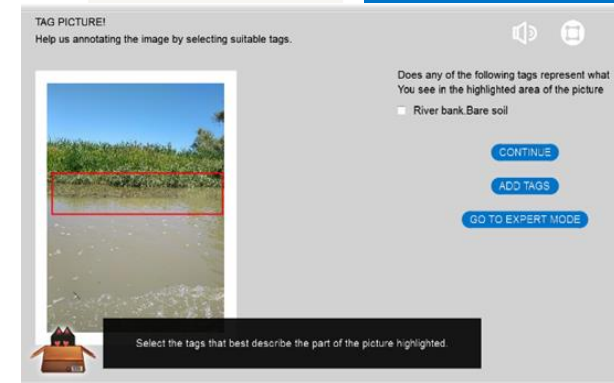
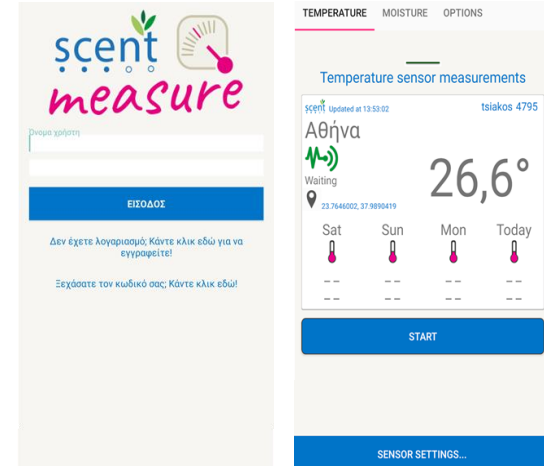


This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 688930.

Gaming platforms & low cost sensors



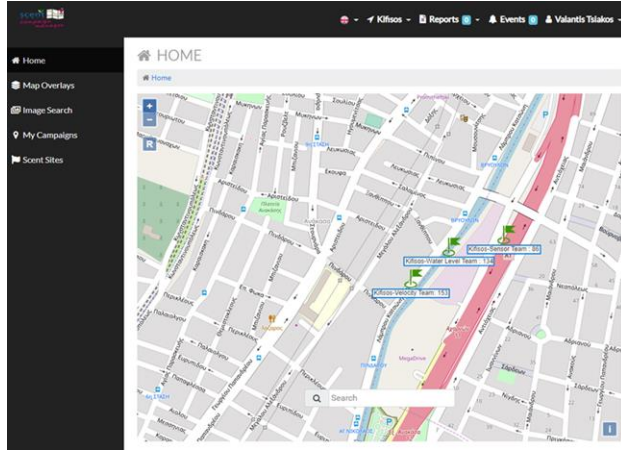
- ✓ 12000+ unique users have visited Scent Collaborate
- ✓ 1210+ active registered users
- ✓ Scent apps: 3000+ downloads, with 705 active users;
- ✓ 30000+ annotations



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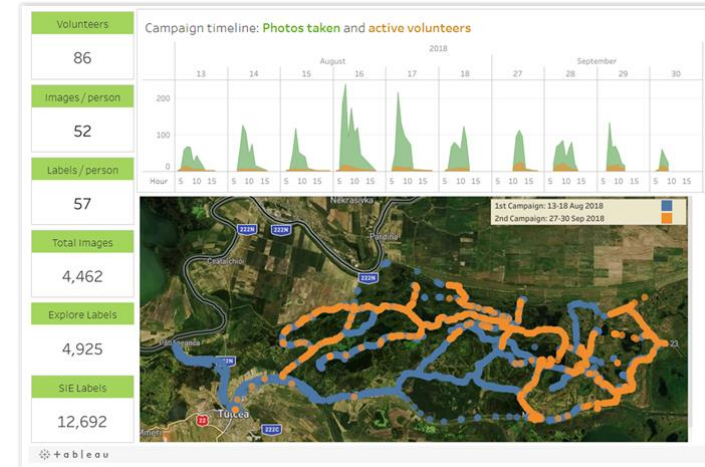
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Crowdsourcing & interoperability



- ✓ Crowdsourcing platform to connect all applications and services in the Scent Toolbox linking the data gathered by citizens through the front-end applications to all other toolbox components
- ✓ Web-based application allowing public administrators, policy makers and others to create and manage citizen science campaigns.

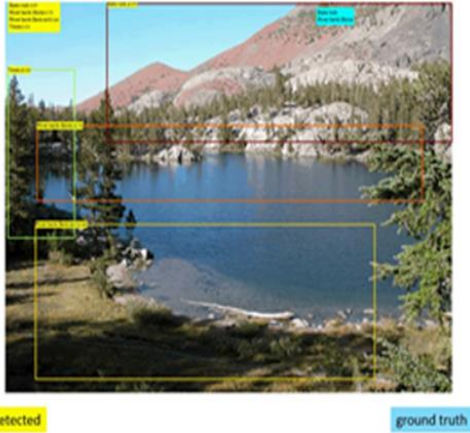
- ✓ Harmonisation platform enabling the management, storage and provision of citizen-generated data and added-value information produced by the Scent tools, and translating them to standardized resources
- ✓ Adoption of OGC standards (OGC Sensor Things API)



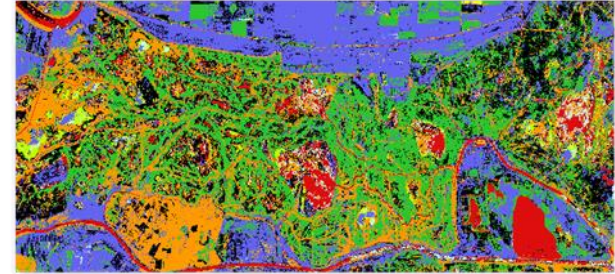
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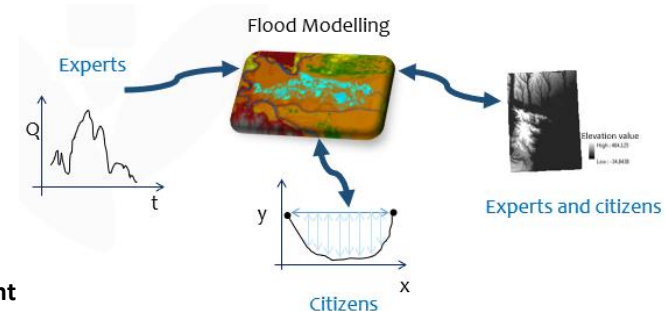
Data analysis, LC/LU mapping & flood modelling



- ✓ Machine learning to classify and annotate images from citizens and open platforms
- ✓ Algorithms to detect water level indicators and support the automatic extraction of water level data from images and water velocity from videos



- ✓ Machine learning to automatically detect and annotate segments on satellite and aerial imagery with land-use/cover elements that affect flood risk and flood pattern determination e.g. river banks, forests etc.
- ✓ Computational representations of water dynamics in the pilot areas, built using ground observations and remote sensing data, and enhanced with crowdsourced data



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Scent Large Scale Pilots



- 11 months | 10 campaigns
- Urban & rural environment (Kifisos-Greece & Danube Delta-Romania)
- 700+ participants
- 24200+ observations
- LC/LU elements, river parameters and soil measurements



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