

# The Growing Role of GEO in the Urban Nexus including Citizen Science

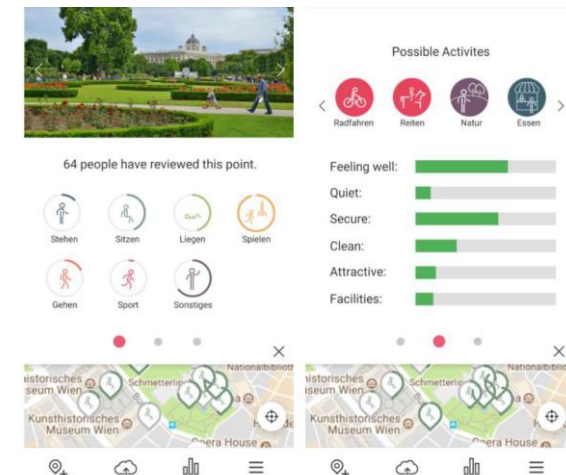
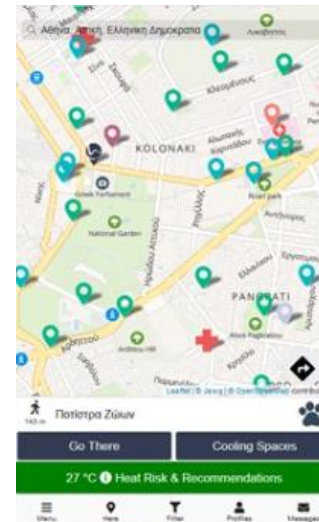
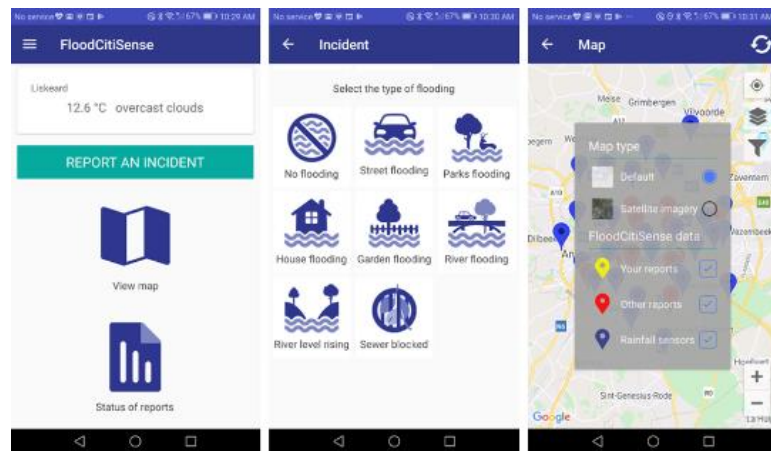
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# Role of Citizens in Tackling Urban Issues

- Stakeholders in co-creation of urban solutions/Living Labs
- Adopting more sustainable practices, e.g., urban mobility, greening, renewables
- As citizen scientists / engagement in Citizen Observatories / engagement in participatory processes
  - Monitoring urban biodiversity, air pollution, flooding, thermal comfort, greenspace quality (in situ data collection/sensors)
  - Visual interpretation of imagery for training/validation of remotely sensed products



# Impediments and Needs

- Many issues related to data
  - Data interoperability requirements
  - Discoverability vs. standards
  - Data quality
  - Lack of data / data not aligned with needs
- Many citizen science projects take place at the local level
- What are the benefits to citizens?
- Federation and registration infrastructure missing
- More dialogue between cities/citizen science projects/citizen observatories
- More projects and funding for citizen observatories, e.g., Horizon Europe's recent call on urban sensing and EO



A Roadmap for Citizen Science in GEO  
 The essence of the Lisbon Declaration  
<https://zenodo.org/record/4001683#.YnDwJdrMKUK>

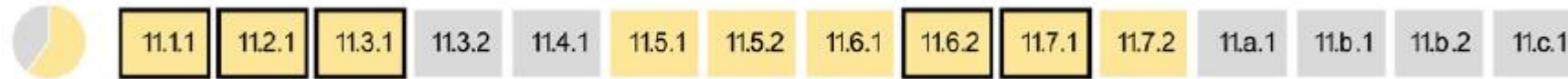


# Relevant Activities in GEO

- GEO Citizen Science Community Activity



- Mapping of citizen science, EO and the SDGs including SDG 11



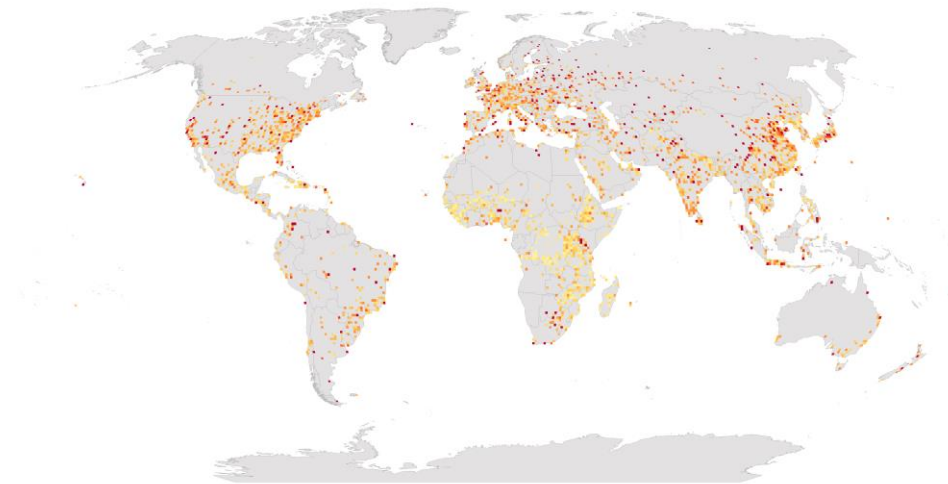
- Interoperability experiments
- Earth Challenge covering urban issues
- Lisbon Declaration as roadmap for a way forward
- Showcasing examples/good practice, funded projects

- Global Urban Observation and Information Initiative

- EXTREMA project

- GEO Human Planet Initiative

- Geo-Wiki campaign to collect reference data on built-up surfaces



Percentage of built-up sample points within 100 km² pixel  
2% 100%