



Let's Park is crowdsourcing platform that connects citizen groups and municipal authorities with the Environmental Social Activation (ESG) program of companies for the co-design and implementation of pocket-parks, i.e., small green spaces that shield cities against the modern environmental crisis.

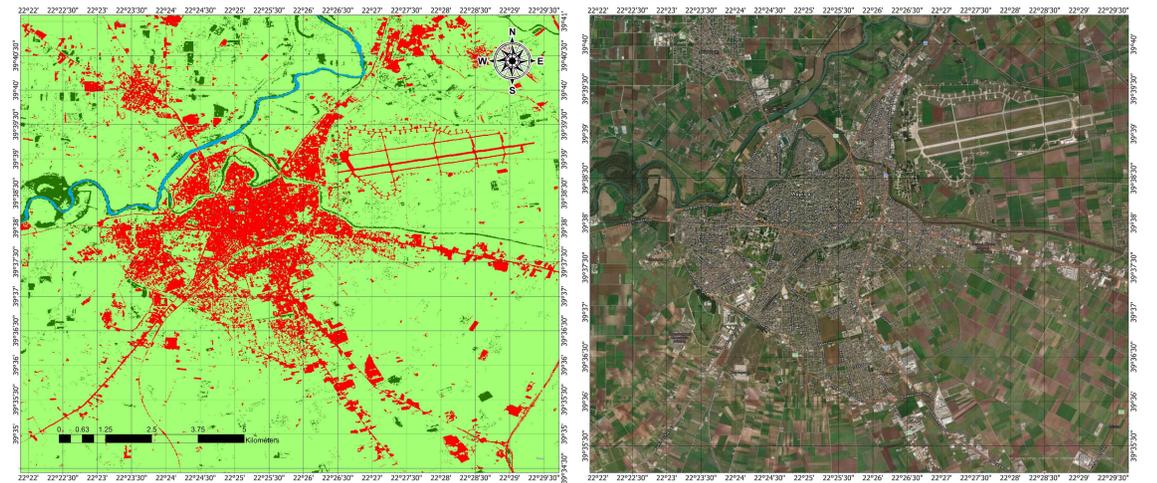
## 1. The need for UGSs

- By 2050, it is predicted that **68% of the world's population** will live in cities (UN Dept. of Economic and Social Affairs, 2018).
- According to the European Environmental Agency, at least **20% of the urban population** is exposed to noise levels considered harmful to health.
- In 2019, **99% of the world's population** was living in places where the WHO air quality guidelines levels were not met.
- In the United States, the heat island effect results in daytime temperatures in urban areas about **1-7°F higher** than temperatures in outlying areas and nighttime temperatures about **2-5°F higher**.
- The World Health Organization (WHO) recommends that urban residents have access to **at least 0.5-1ha of public green space within 300m of their home**.

## 2. Overall Workflow

- A municipal authority signs a *Memorandum of Co-operation with Let's Park*.
- A task-force of scientists along with a representative from the municipal authority create an *urban green space inventory using AI and Satellite Remote Sensing*.
- Informative signs* are installed in selected parks, including QR codes leading to the *Let's Park web app for public feedback and park improvement suggestions*.
- Let's Park periodically monitors and provides data on the green spaces, organizing workshops with local stakeholders for co-designing park development strategies.
- Municipal authorities receive access to a *Decision Support Tool*, and a *periodic report on UGSs in Greek cities* is published every two years.

## 3.2. Monitoring Land Cover Dynamics using Sentinel-2 images



We have developed a series of GEE Scripts for automating the process of downloading and exporting classified satellite imagery from Google Earth Engine (GEE) with a focus on dichotomous land classification. Utilizing Sentinel-2 data, we generate time-based composites, filter images by cloud coverage, and apply machine learning classifiers to distinguish between key land cover categories, such as vegetated vs. non-vegetated areas or artificial vs. natural vegetation. The processed outputs, tailored for specific regions like the municipality of Larissa, are exported as GeoTIFF files for further analysis. These scripts were designed aiming to monitor land cover changes and vegetation patterns over time.

## 3.1. Mapping urban areas of interest using UAVs



## 4. The letspark.gr web application

### 4.1. User authentication

### 4.2. Participatory GIS Tools

### 4.3. An Urban Green Spaces (UGSs) Inventory

### 4.4. Visualizations supporting decision-making

