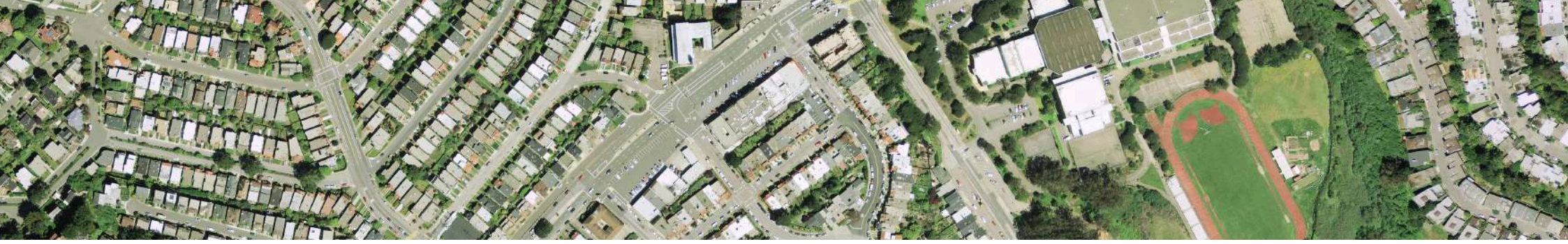


HELIOSCOPE

FROM PIXELS TO PANELS. TERRACES TO TERAWATTS

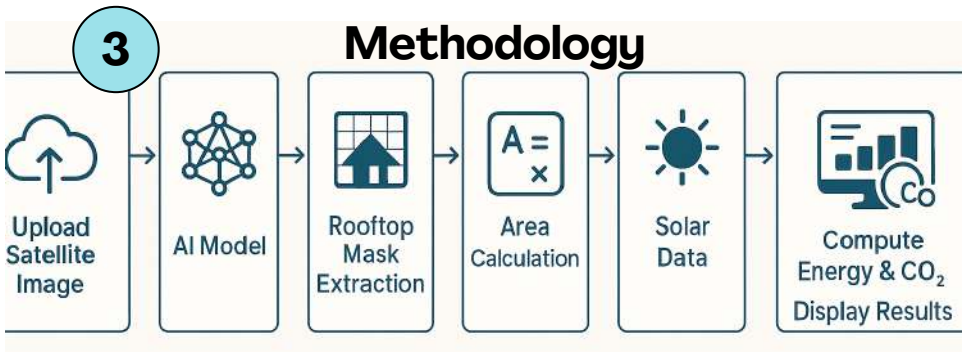
1 Problem Statement

Cities lack scalable, low-cost tools to assess rooftop solar potential. Manual surveys are slow, expensive, and unscalable—stalling urban climate goals.
Thus, we have Helioscope—an AI-driven platform that automatically maps usable rooftop area from high-resolution satellite imagery.

2 Objectives

- Automate rooftop detection via AI + satellite imagery
- Accurately compute usable rooftop area (m^2)
- Enable rapid, remote solar assessments at city scale
- Deliver a scalable, easy-to-integrate solution

3 Methodology



- Uses DeepLabV3+ with a ResNet-34 encoder
- Outputs 2-channel masks (background vs panel)
- Final layer: 1×1 convolution + softmax, selecting the higher-probability class per pixel

4 Business Model

- SaaS for gov, developers ($350–$12k/yr)
- Freemium for smaller users(pay for premium features)
- Custom project deployments ($3.5k–$12k)

5 Results