The Value of EO Data

Although EO data is discussed briefly during the discussion of developing exposure data, additional emphasis will be placed on EO data due to the “space-based” nature of the project. This will include a discussion of specific used of the data, with examples, as well as common challenges.

What is the role of EO in developing exposure data?

- Global population datasets
- Global urban/rural or urban intensity datasets
- Segmentation of development patterns
- Building footprint extraction
- Average building size
- Challenges and emerging research

https://meteor-project.org

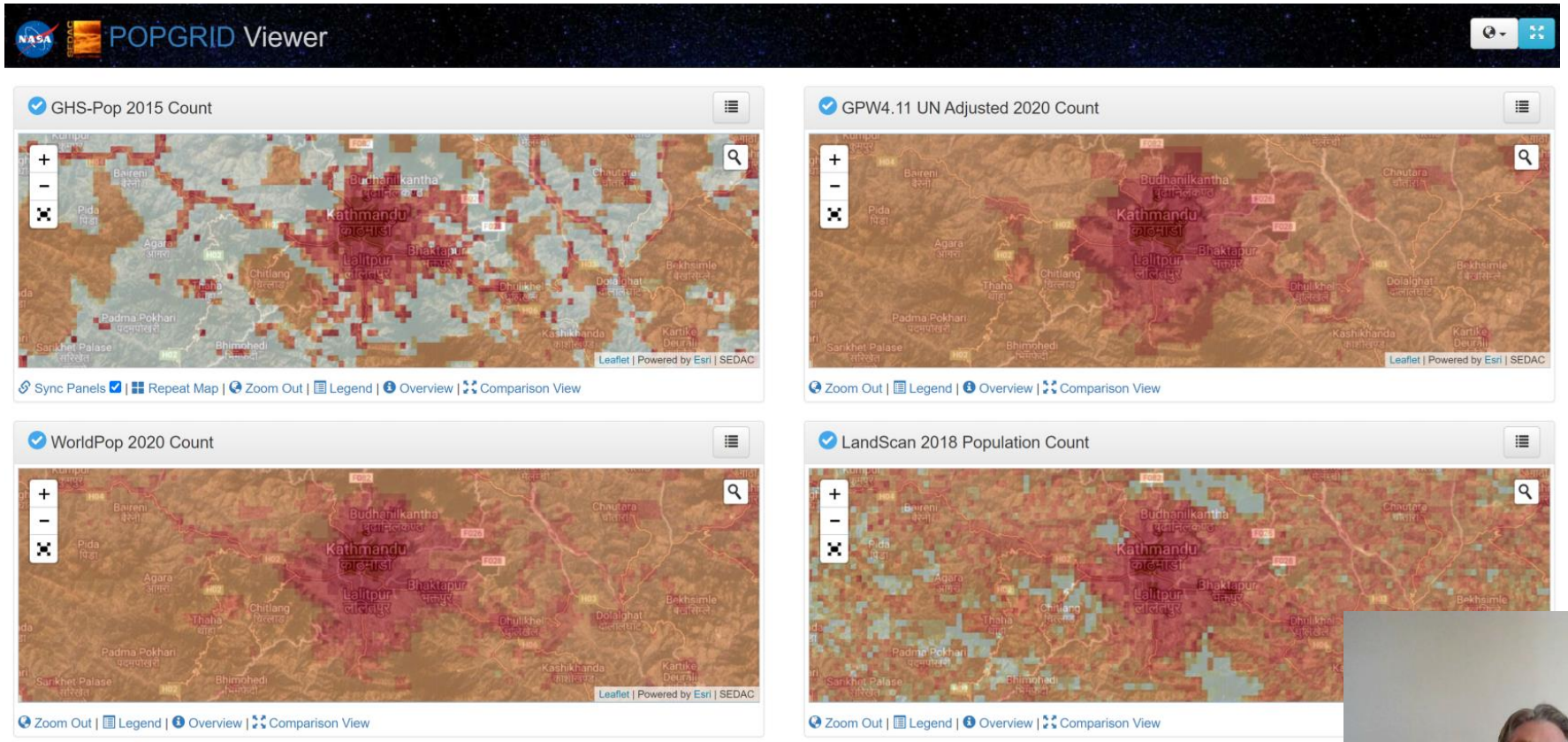
British Geological Survey

ImageCat

NSET

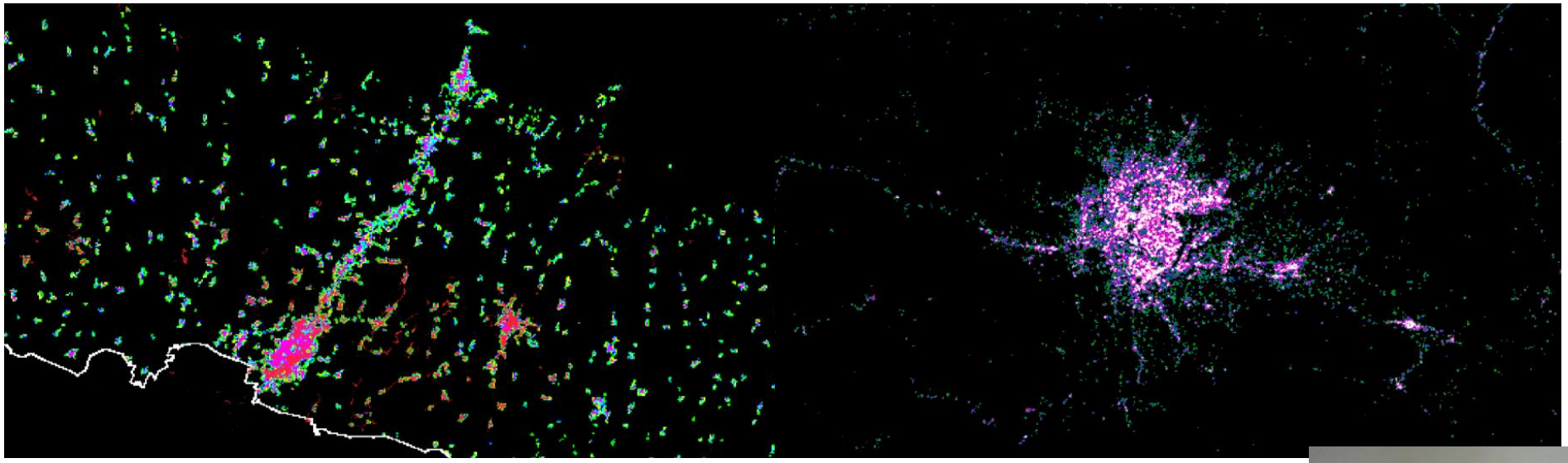
Oxford Policy Management

Global population datasets



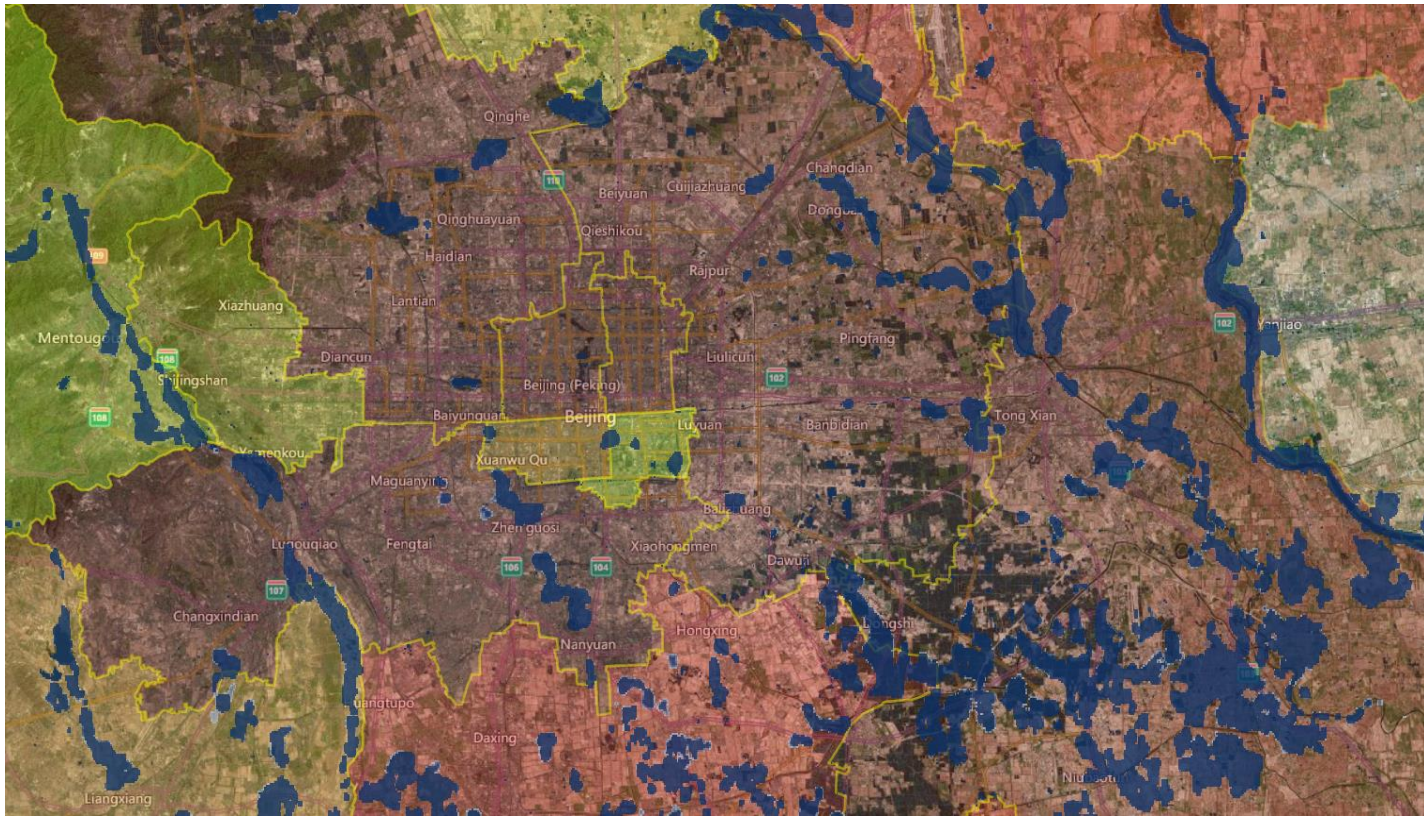
https://meteor-project.org

Global urban/rural or urban intensity datasets



https://meteor-project.org

Segmentation of Development Patterns



https://meteor-project.org

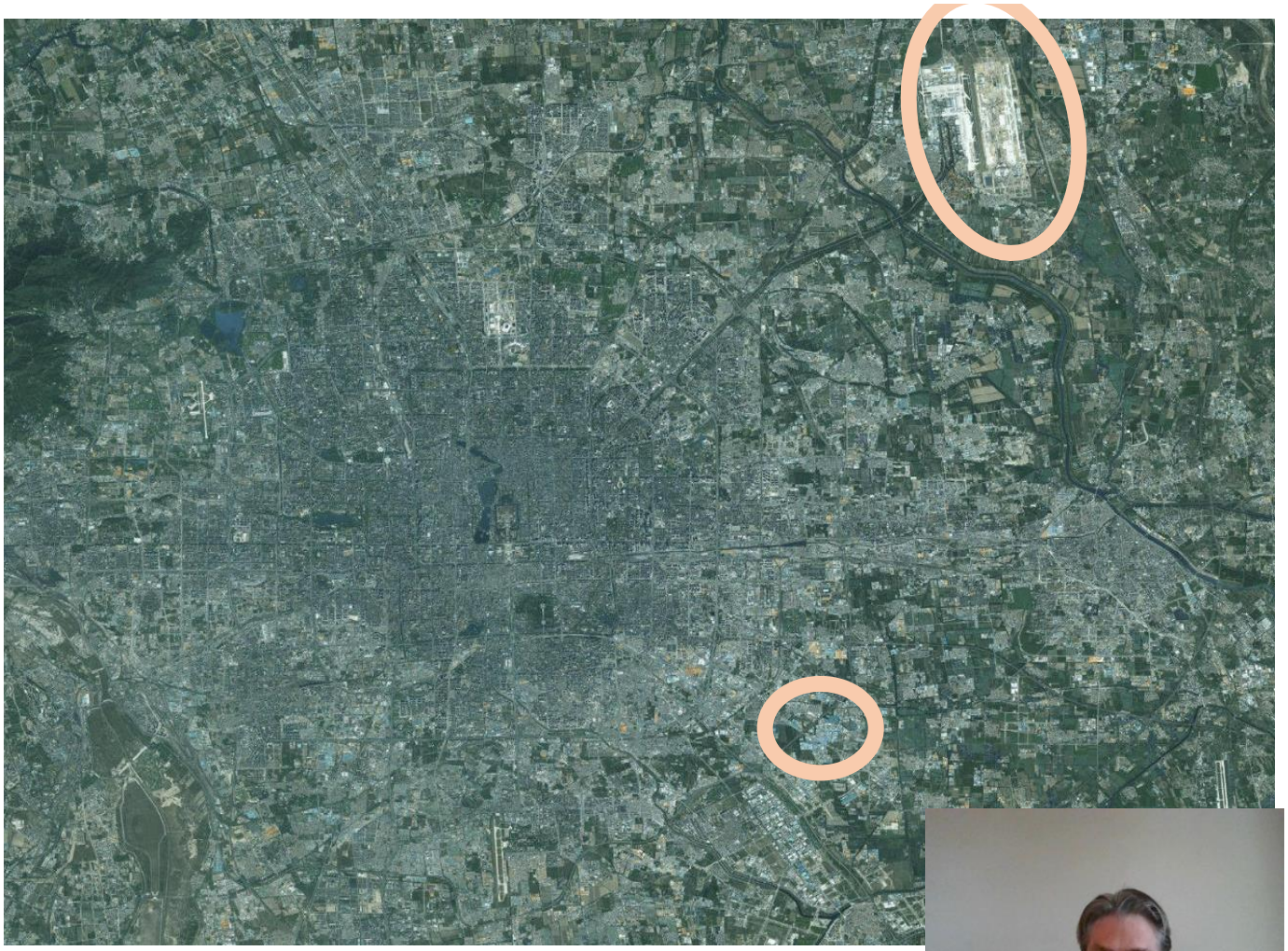
British Geological Survey

NSET

Oxford Policy Management

Segmentation of Development Patterns

- Urban
- High Rise Residential
- Mid Rise Residential
- Single Family Residential
- Open Spaces
- Industrial
- Water



https://meteor-project.org

Segmentation of Development Patterns

- Urban
- High Rise Residential
- Mid Rise Residential
- Single Family Residential
- Open Spaces
- Industrial
- Water

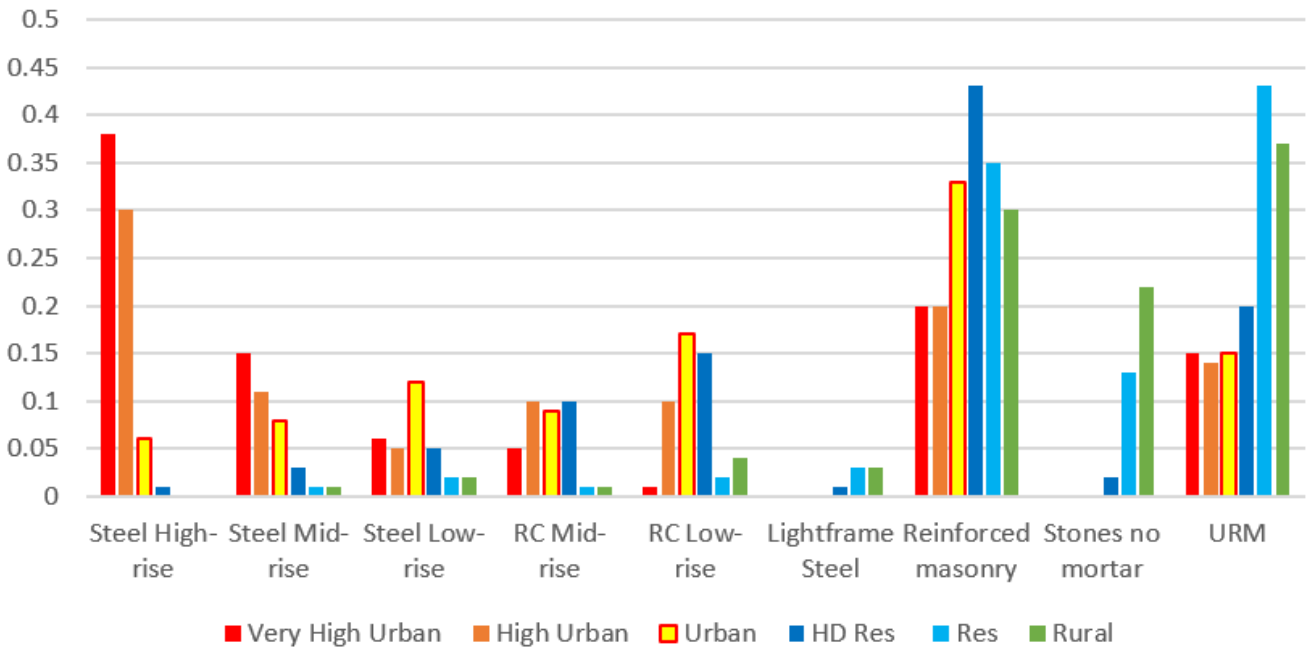
https://meteor-project.org

Segmentation of Development Patterns

- Urban
- High Rise Residential
- Mid Rise Residential
- Single Family Residential
- Open Spaces
- Industrial
- Water

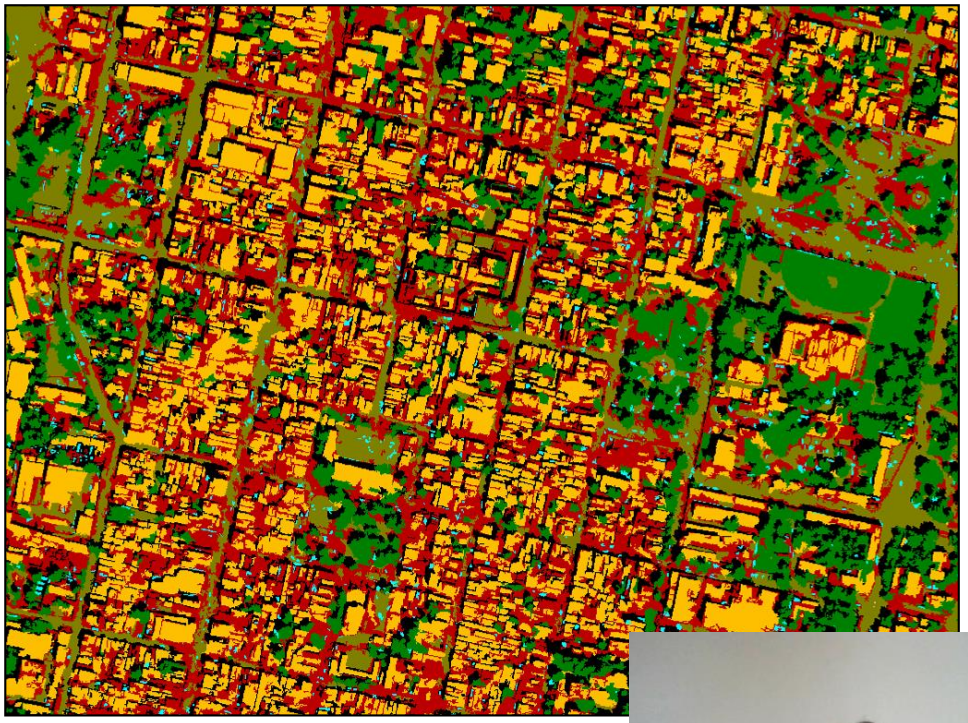
https://meteor-project.org

Segmentation of Development Patterns



https://meteor-project.org

Building footprint extraction



https://meteor-project.org

British Geological Survey

Rural

Residential

High Density Residential

https://meteor-project.org

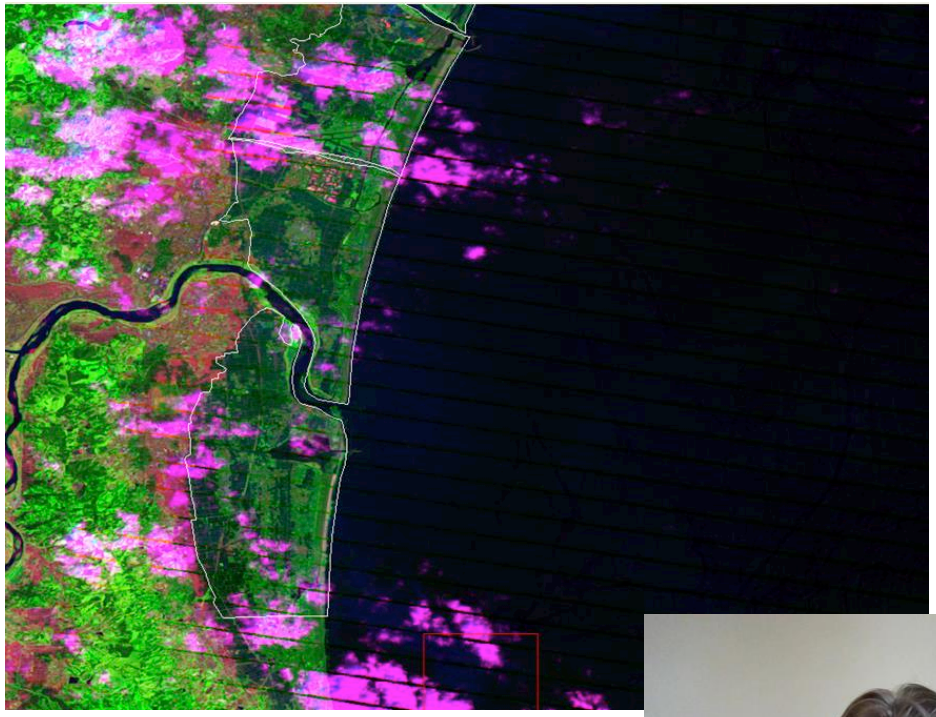
British Geological Survey

NSET

Oxford Policy Management

Challenges and emerging research

- Challenges:
  - Low lights
  - Under tree canopies
  - Cloud cover
  - Mountainous regions
  - Indigenous material
- Upcoming:
  - New sensors
  - AI
  - Data from streetview and UAVs



https://meteor-project.org

British Geological Survey

ImageCat

NSET

Oxford Policy Management