

A satellite image of a river valley. The river is a prominent green line winding through a brown, hilly landscape. On the left bank, there are several circular green ponds. The surrounding land is divided into agricultural fields, some of which are green, indicating crops. The terrain is rugged with visible erosion patterns.

**PLANET
LABS**

Imaging the whole Earth every day

Josh Alban
VP, Business Development
josh@planet.com



**Planet Labs helps you
detect and act on
change by imaging the
whole Earth everyday.**



Challenges



Limited
Coverage



Low
Revisit
Rates

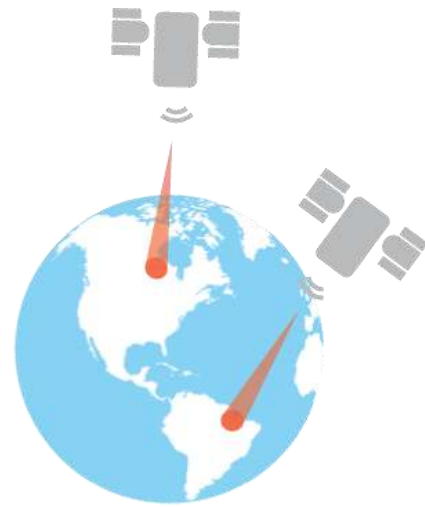


Slow
Access



Traditional Approach

- Tasking
- Low coverage
- Weeks to gain access
- Expensive



Planet Labs Approach

- Monitoring
- Global coverage
- Daily online delivery
- Affordable







NASA
LANDSAT8



PLANET LABS
DOVE

Our Solution



Global Coverage

Planet's constellation of satellites is always-on, imaging the entire Earth every day



Fresh Data

Fresh, daily imagery helps you detect anomalies, take action and capitalize on change



Easy Access

Integrate same-day imagery into your processes with Planet's APIs or online tools

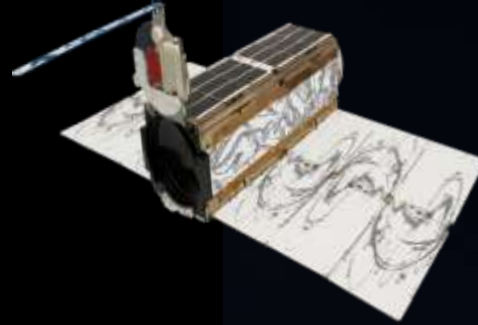
The Dove Spacecraft



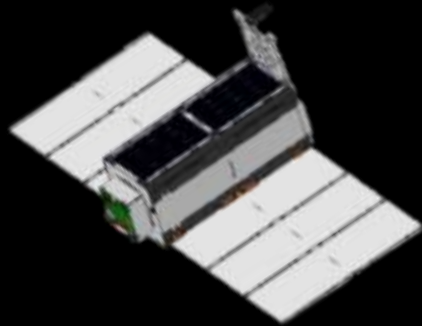
Agile Aerospace



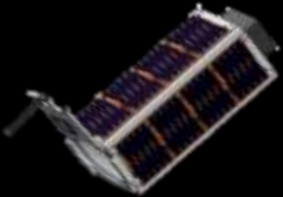
BUILD 13
JUN 2015



BUILD 6
APR 2013



BUILD 1
APR 2012



12 Builds in less than 3 years





End-to-end System

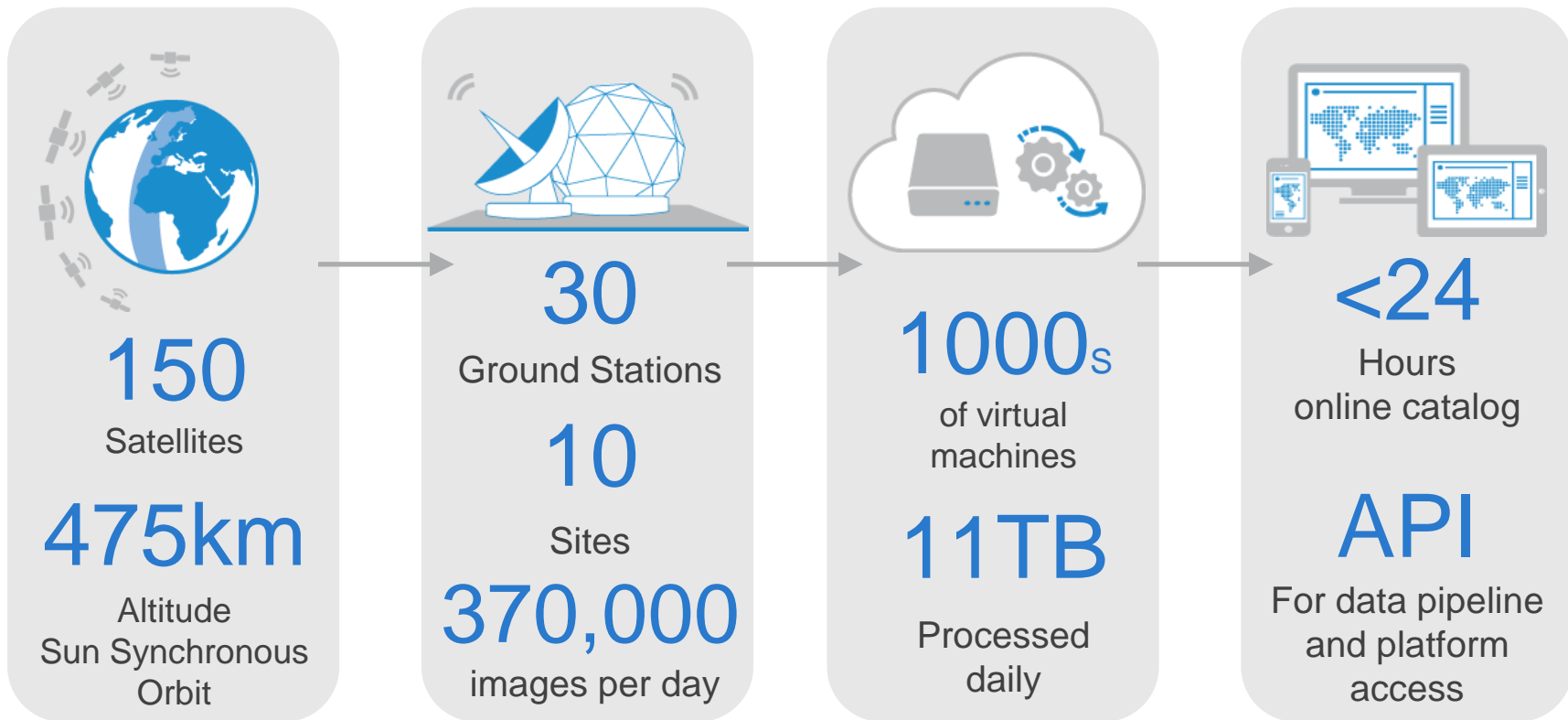
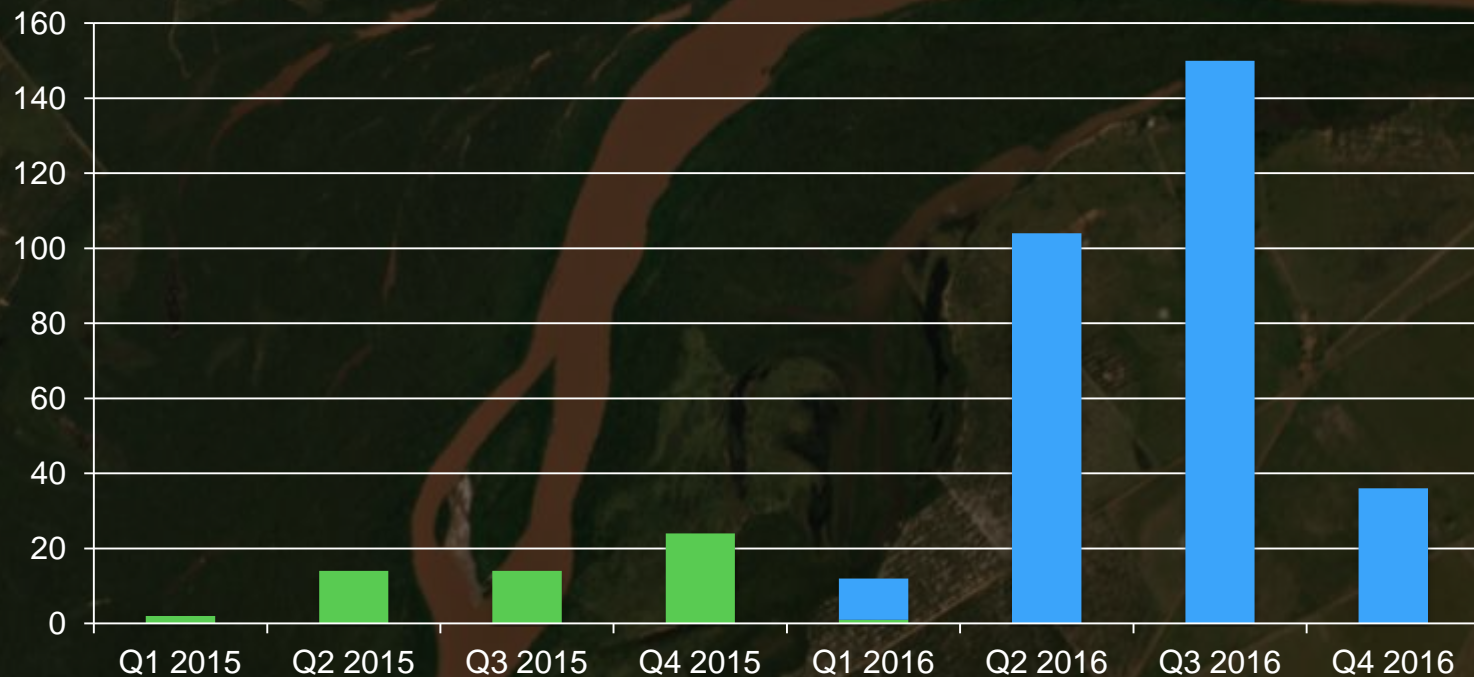


Image whole Earth everyday

Unprecedented Launches



■ Test Orbit

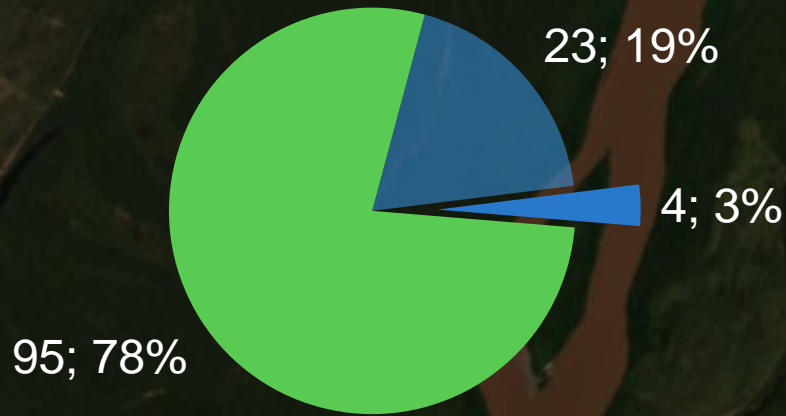
■ Planned Sun Synchronous Orbit

Information is Proprietary & Confidential – Planned launches are subject to change

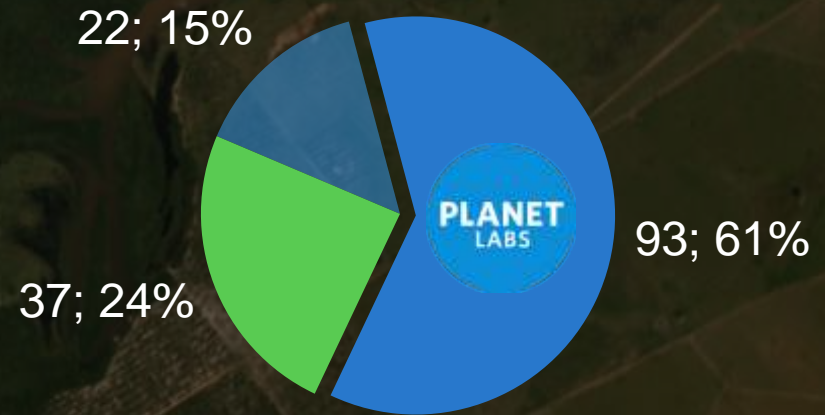


Industry Satellite Launches

2013

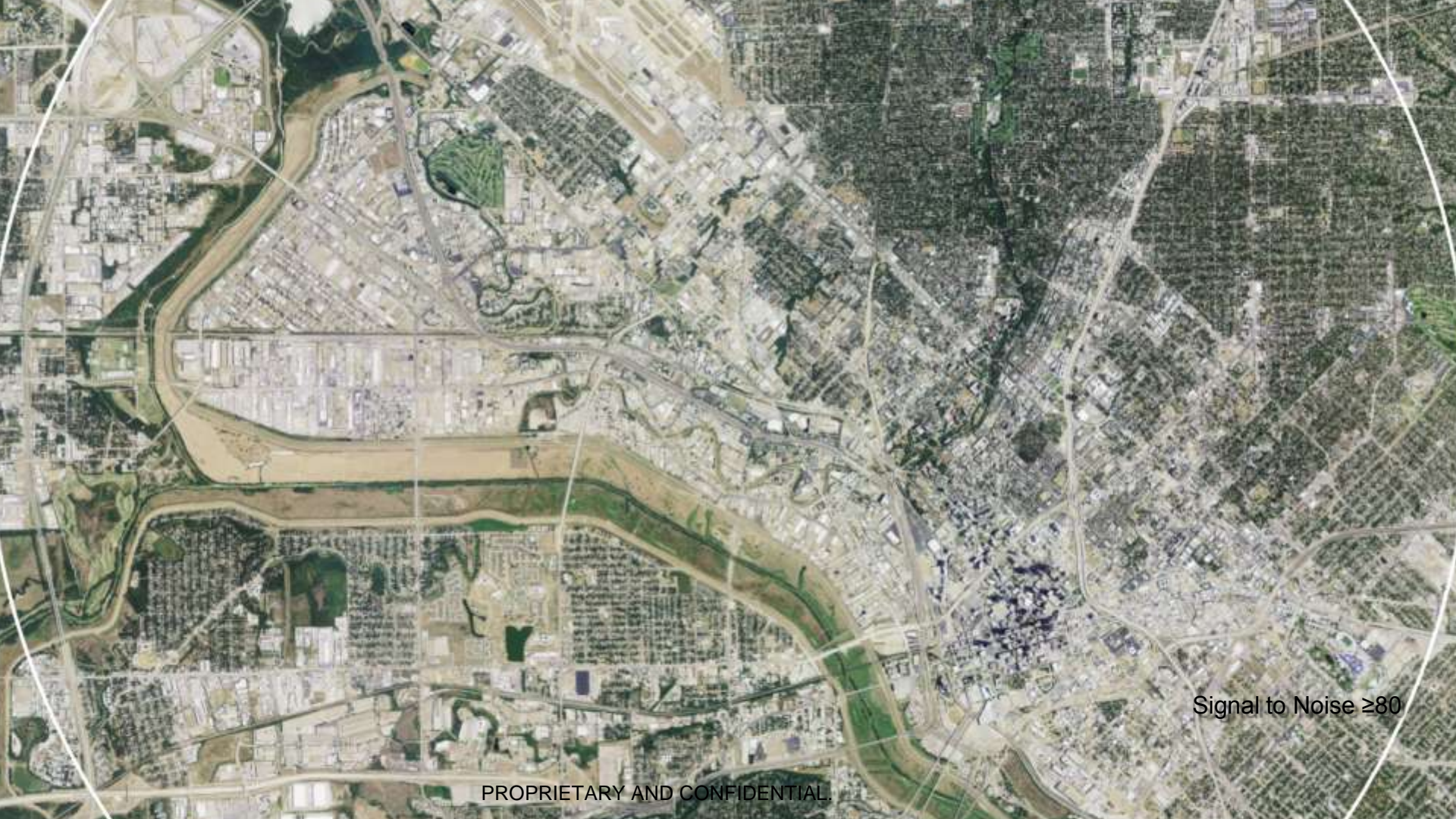


2014



Commercial Satellites Other Cube Satellites Planet Labs Satellites

Source: Prepared by Tauri Group for Satellite Industry association



Signal to Noise ≥ 80

PROPRIETARY AND CONFIDENTIAL.



**September of
2015**

**Clifton, Iowa,
USA**

**Two “2 stripe”
NIR Filters**



Applications, Imagery & Tools



Agriculture



Energy &
Infrastructure



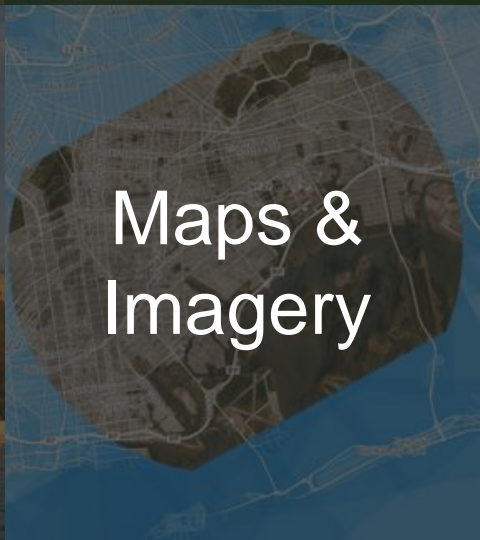
Finance &
Business
Intelligence



Forestry



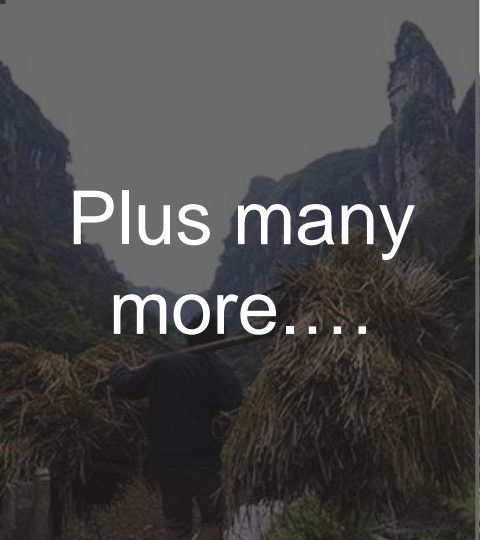
Government



Maps &
Imagery

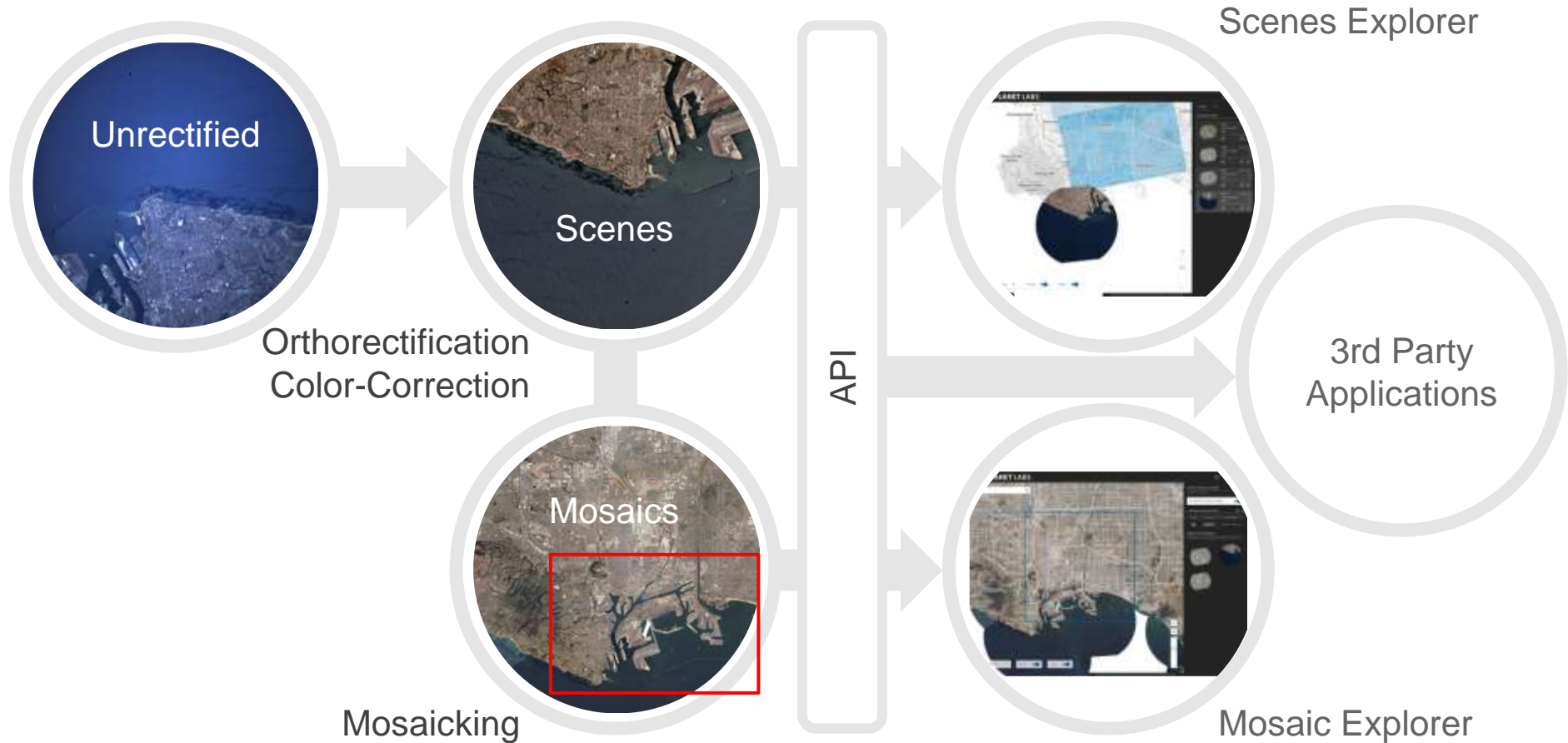


Social
Impact



Plus many
more....

Immediate access to the data



Scenes Explorer

Instant browse and delivery of scene archive

- Browse scene archive
- New scenes added as acquired and cleared data pipeline
- Filter by metadata, AOI & TOI
- Save workspaces
- Bulk delivery

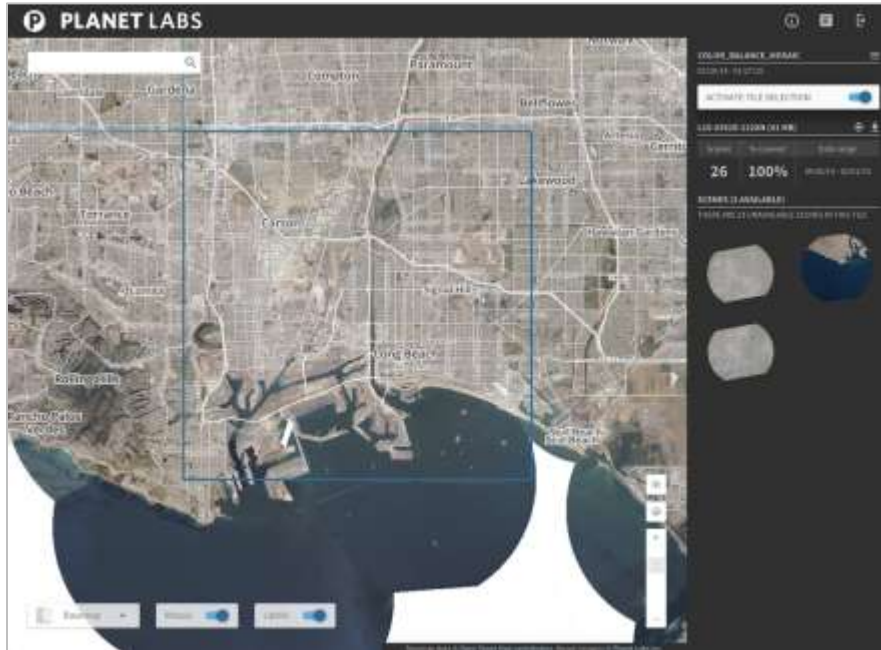
planet.com/scenes



Mosaic Explorer

Seamless, timely and frequent mosaics

planet.com/mosaics



- Specify timeframe for mosaics
- “Best Pixel” methodology for optimal results
- See change happen over time
- Scene traceability
- Monthly and weekly built

External APIs

Programmatic access to search and download data

api.planet.com

```
{
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  "features": [
    {
      "geometry": {
        "coordinates": [
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            [
              -112.0119964534457,
              51.52382092312086
            ],
            [
              -112.05334017493403,
              51.52412824358945
            ],
            [
              -112.29502367253866,
              51.54845224359259
            ],
            [
              -112.25514028721022,
              51.48510995431129
            ],
            [
              -112.0119964534457,
              51.52382092312086
            ]
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        "cloud_cover": {
          "estimated": 38.12
        }
      },
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          },
          "visual": {
            "full": "https://api.planet.com/v6/scenes/scene/20130220_172005_0907/full/product/visual"
          }
        }
      }
    }
  ]
}
```

planet.com/docs

PLANET LABS

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API V0

General Concepts

Scenes API

Mosaics API

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planet.com

Introduction

A "scene" refers to a single image as taken by one of Planet's satellites.

The Scenes API offers REST API access to listing, searching, and downloading available scenes and their associated metadata.

Metadata Properties

| Field | Description |
|-----------------------|--|
| acquired | The time that image was taken in ISO 8601 format , in UTC. |
| cloud_cover.estimated | The estimated percentage of the image covered by clouds. Decimal 0-100. |
| file_size | The size of the full image in bytes. |

Example of a metadata dictionary response

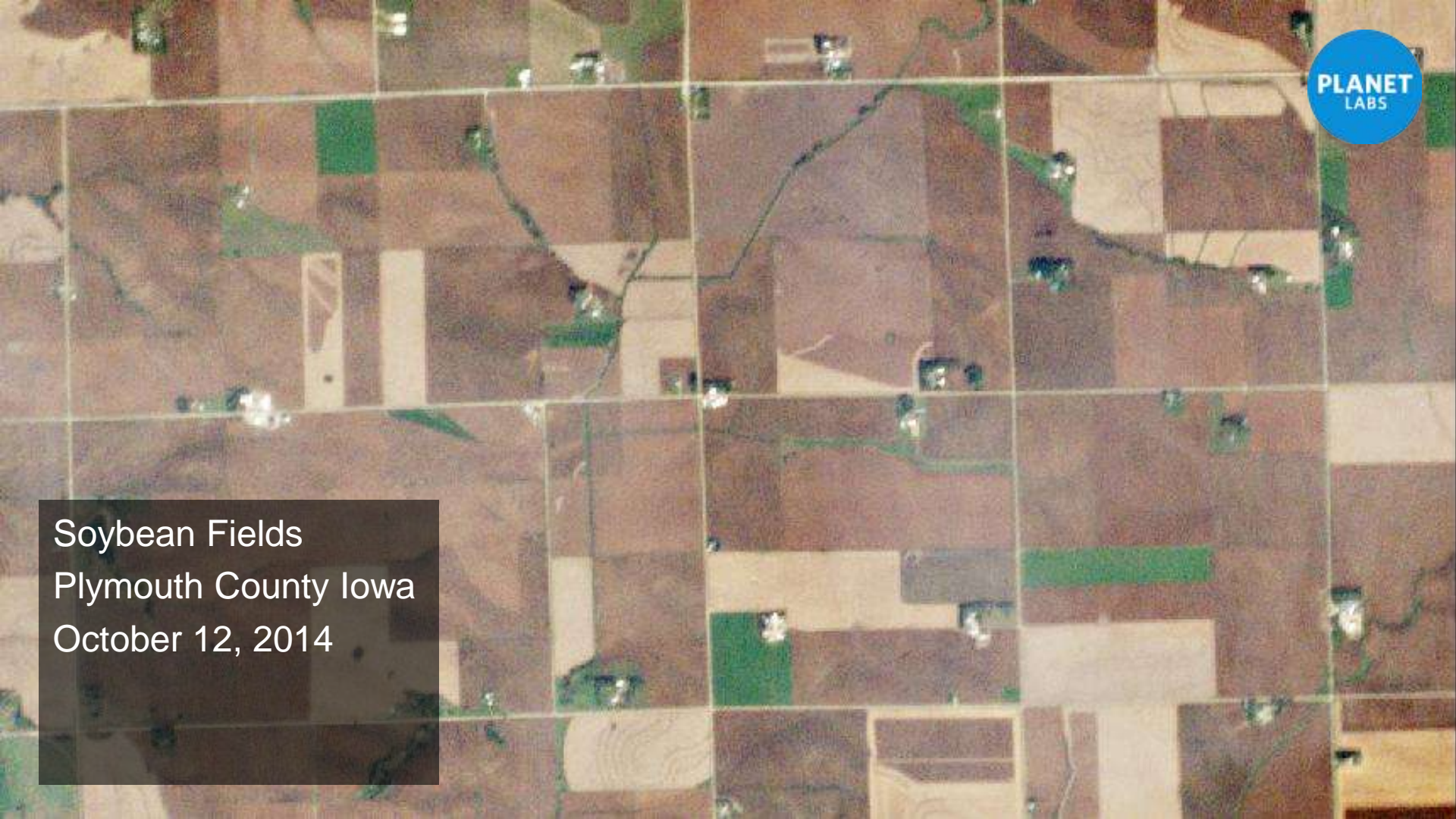
```
{
  "properties": {
    "acquired": "2014-04-07T03:40:38.923981+00:00",
    "cloud_cover": {
      "estimated": 1.85
    }
  },
  "data": {
    "products": {
```

An aerial photograph of a desert landscape. The terrain is arid and brown, with a complex network of dry, branching waterways (wadis) etched into the ground. In the lower right portion of the image, a river flows through a more developed area, characterized by rectangular agricultural fields and some buildings. Several large, dark rectangular solar panel arrays are visible, scattered across the desert floor. The text "Use Case Examples" is overlaid in the center of the image in a large, white, sans-serif font.

Use Case Examples

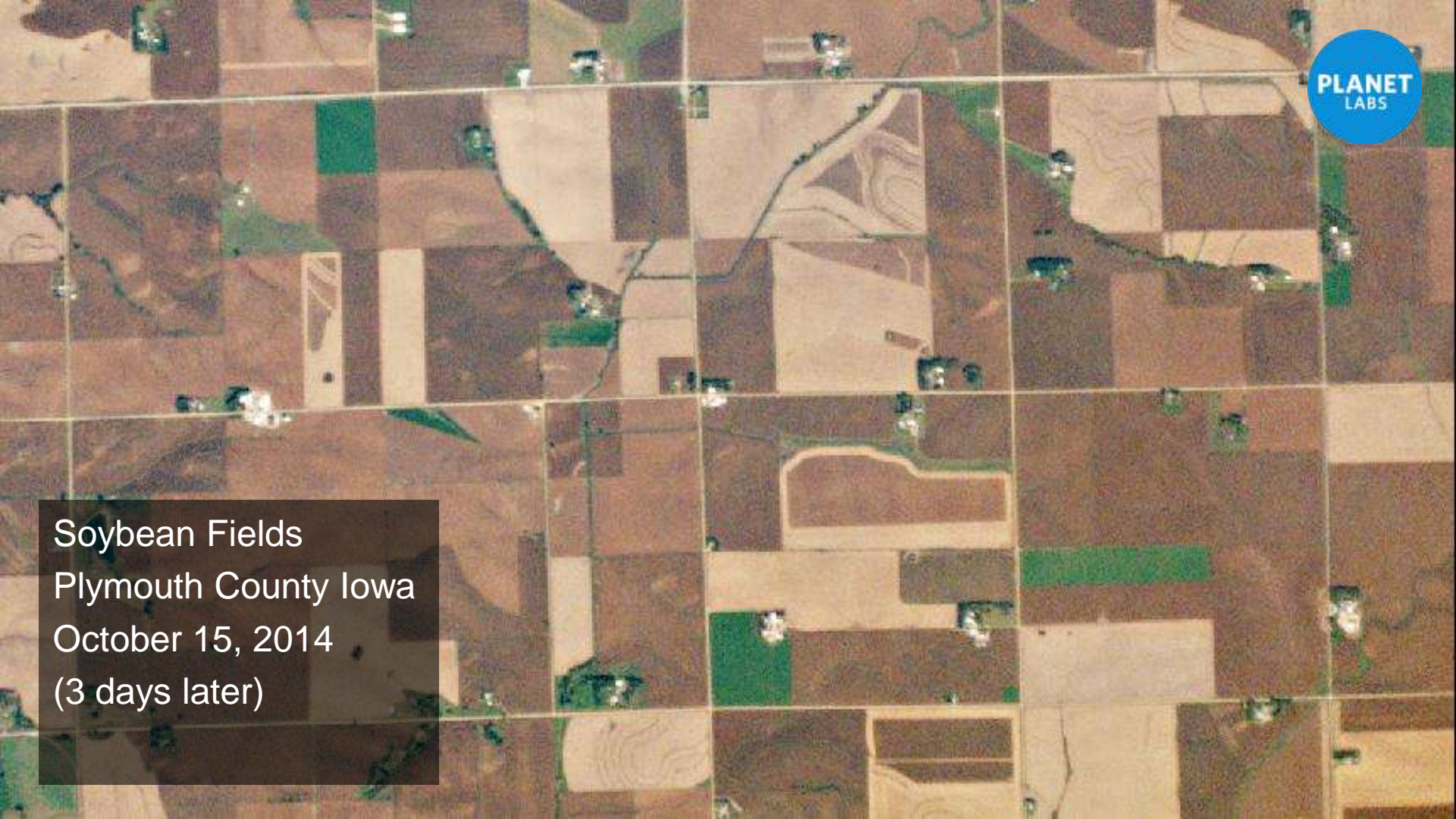


Soybean Fields
Plymouth County Iowa
October 12, 2014





Soybean Fields
Plymouth County Iowa
October 15, 2014
(3 days later)





Soybean Fields
Plymouth County Iowa

Harvest: 1136 Acres
% of Soybean: 15%

Lower Se San 2 Dam
Cambodia

Tonle Srepok, tributary of
the Mekong River

Source: USGS Landsat 8
Date: December 22,
2014



Lower Se San 2 Dam
Cambodia

Tonle Srepok, tributary of
the Mekong River

Source: Planet Labs

Date: January 14, 2014





Forest Management
Oregon, USA

Source: Landsat 8

Date: March 23, 2014

A satellite image of a forest landscape in Oregon, USA, showing a mix of dark green and lighter green forest areas. Three red circles highlight specific areas: one in the upper left, one in the lower left, and one in the lower right. A semi-transparent black box in the upper right contains text.

Forest Management
Oregon, USA

Source: Planet Labs
Date: May 2, 2014

Nepal Earthquake

Source: Planet Labs

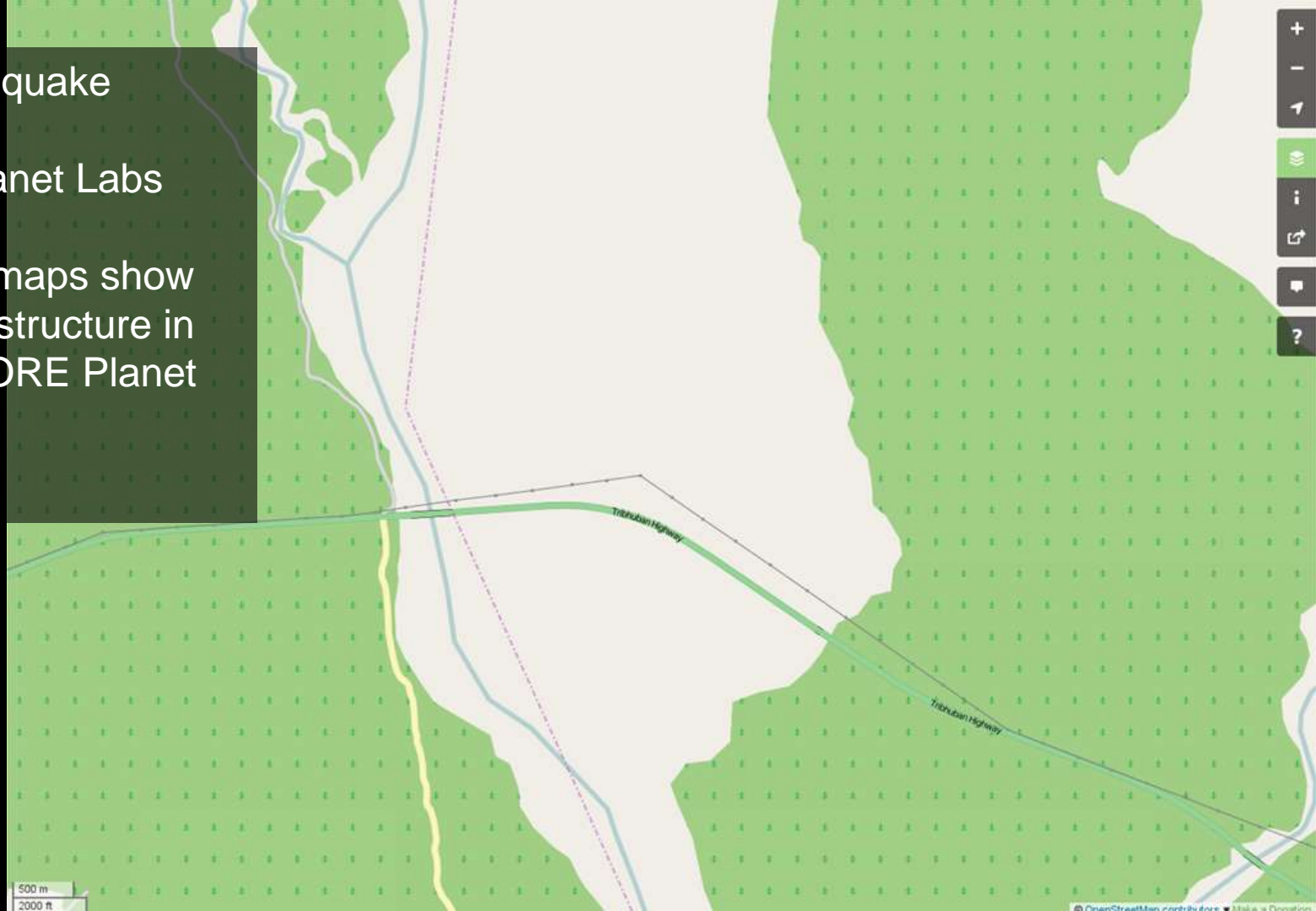
Planet Labs imagery was used to identify impacted settlements not represented on aid workers' maps.



Nepal Earthquake

Source: Planet Labs

Aid worker maps show limited infrastructure in Nepal BEFORE Planet imagery



Nepal Earthquake

Source: Planet Labs

Aid worker maps show limited infrastructure in Nepal BEFORE Planet imagery

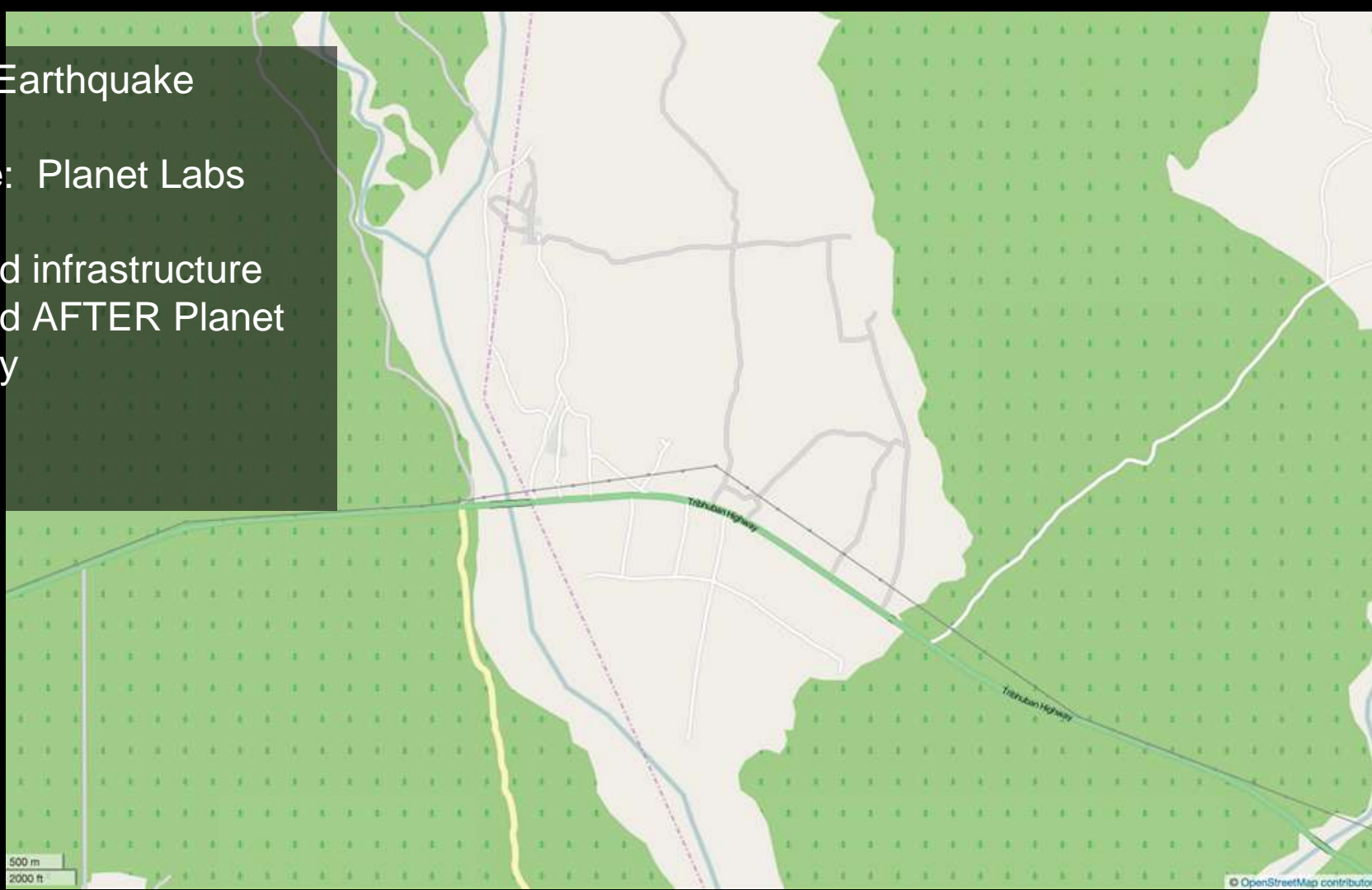
This illustrates how the maps appear over Planet Lab's imagery



Nepal Earthquake

Source: Planet Labs

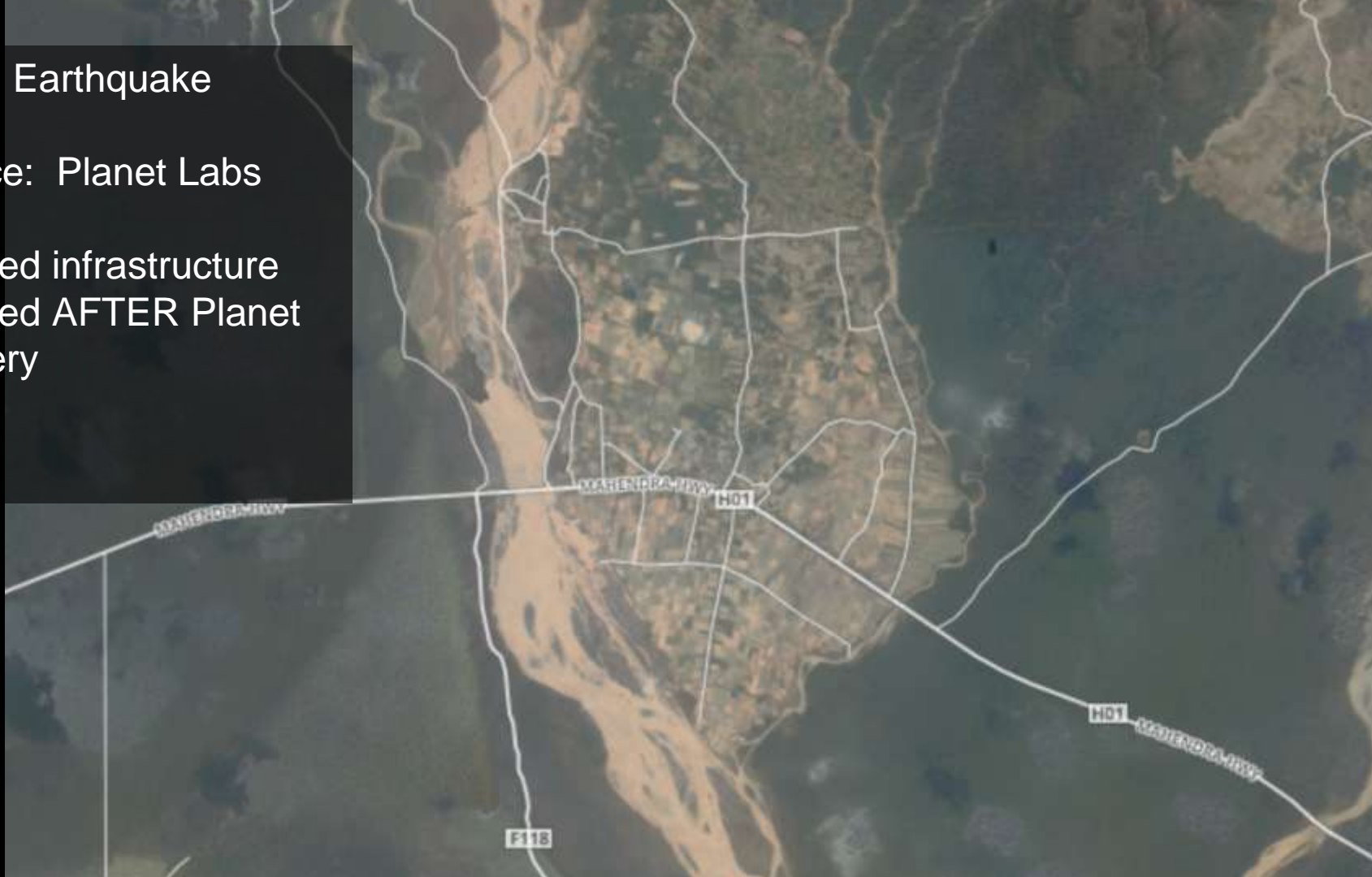
Revised infrastructure
updated AFTER Planet
imagery



Nepal Earthquake

Source: Planet Labs

Revised infrastructure
updated AFTER Planet
imagery



Earthquake in Nepal

“After comparing these results with the latest maps from the HOT team, we saw two towns that were outside the areas currently covered by other crisis mapping, but that our classifiers had marked as high priority.”



NEWS

DISASTER RESPONSE IN NEPAL AND THE ZOONIVERSE

MAY 13, 2015 | BROOKE SIMMONS | 1 COMMENT

Very soon after the recent [magnitude-7.8 earthquake in Nepal](#), we were contacted by multiple groups involved in directly responding with aid and rescue teams, asking if we could assist in the efforts getting underway to crowdsource the mapping of the region. One of the groups was [Rescue Global](#), an independent reconnaissance charity that works across multiple areas of disaster risk reduction and response. Rescue Global also works with our collaborators in [machine learning](#) here at Oxford, combining human and computer inputs for disaster response in a project called [Orchid](#). And they asked us to help them pinpoint the areas with the most urgent unfulfilled need for aid.

EDUCATION FUN NEWS SCIENCE

going back to our "local" Universe ift.tt/1PHgILJ from the galaxyzoo blog 4 days ago

Stuck in the Mud ift.tt/1PikO1Q from the snappersnet blog 5 days ago

Follow @the_zooniverse

TOP POSTS & PAGES

[Disaster Response in Nepal and The Zooniverse](#)

[Using Tag Groups to Collect Images on Talk](#)

[Penguin Watch: Top Images so far](#)

[Floating Forests: Teaching Young Children About Kelp](#)

[Zoo Tools: A New Way to Analyze, View and Share Data](#)

[So Long, and Thanks for All the Fish!](#)

[Who Are The Zooniverse Community? We Asked Them...](#)

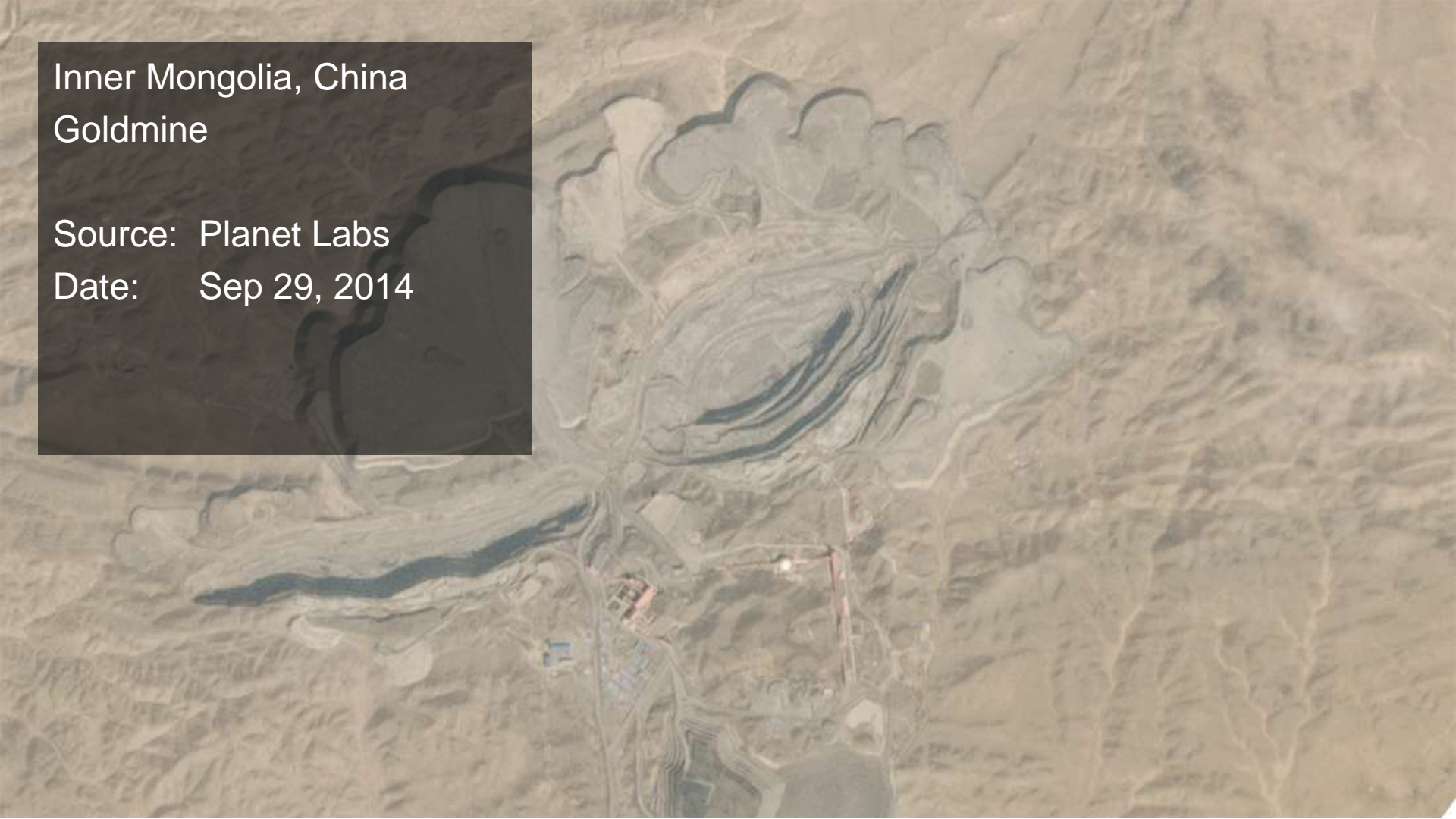
[AAAS Symposium in Feb. 2015: Cutting-Edge Research with 1 Million Citizen Scientists](#)

[One Million Volunteers](#)

Inner Mongolia, China
Goldmine

Source: Planet Labs

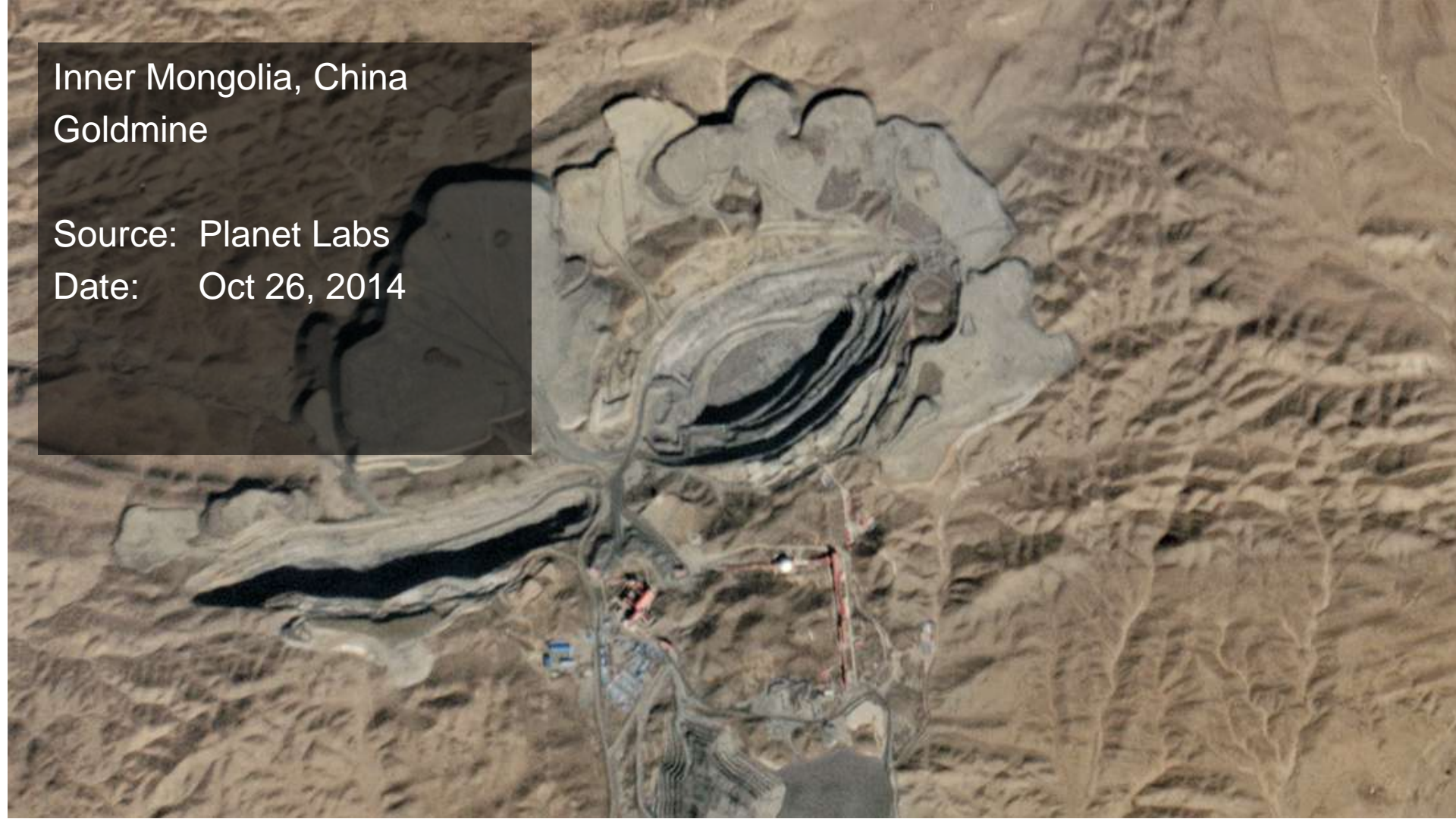
Date: Sep 29, 2014



Inner Mongolia, China
Goldmine

Source: Planet Labs

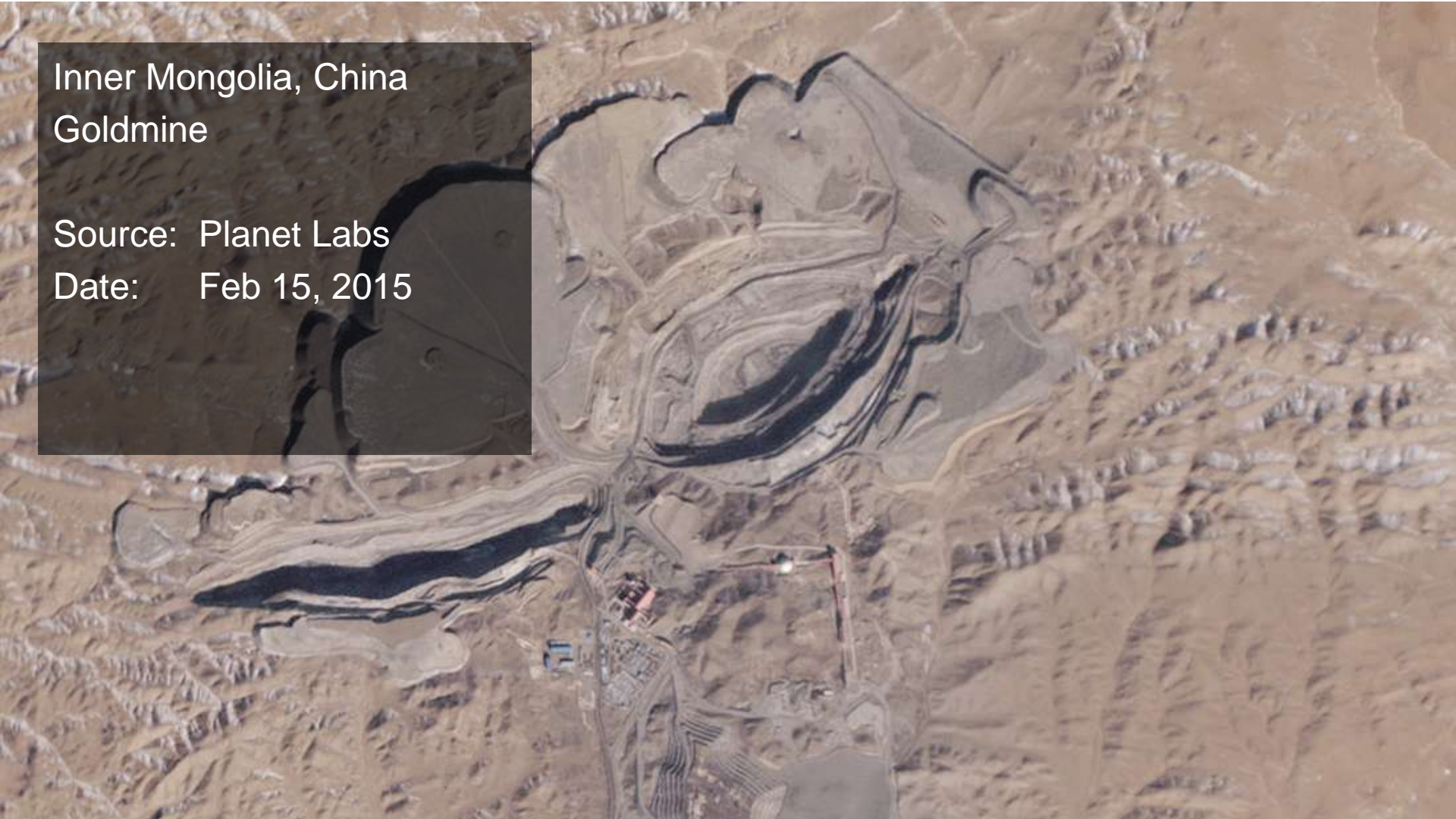
Date: Oct 26, 2014



Inner Mongolia, China
Goldmine

Source: Planet Labs

Date: Feb 15, 2015

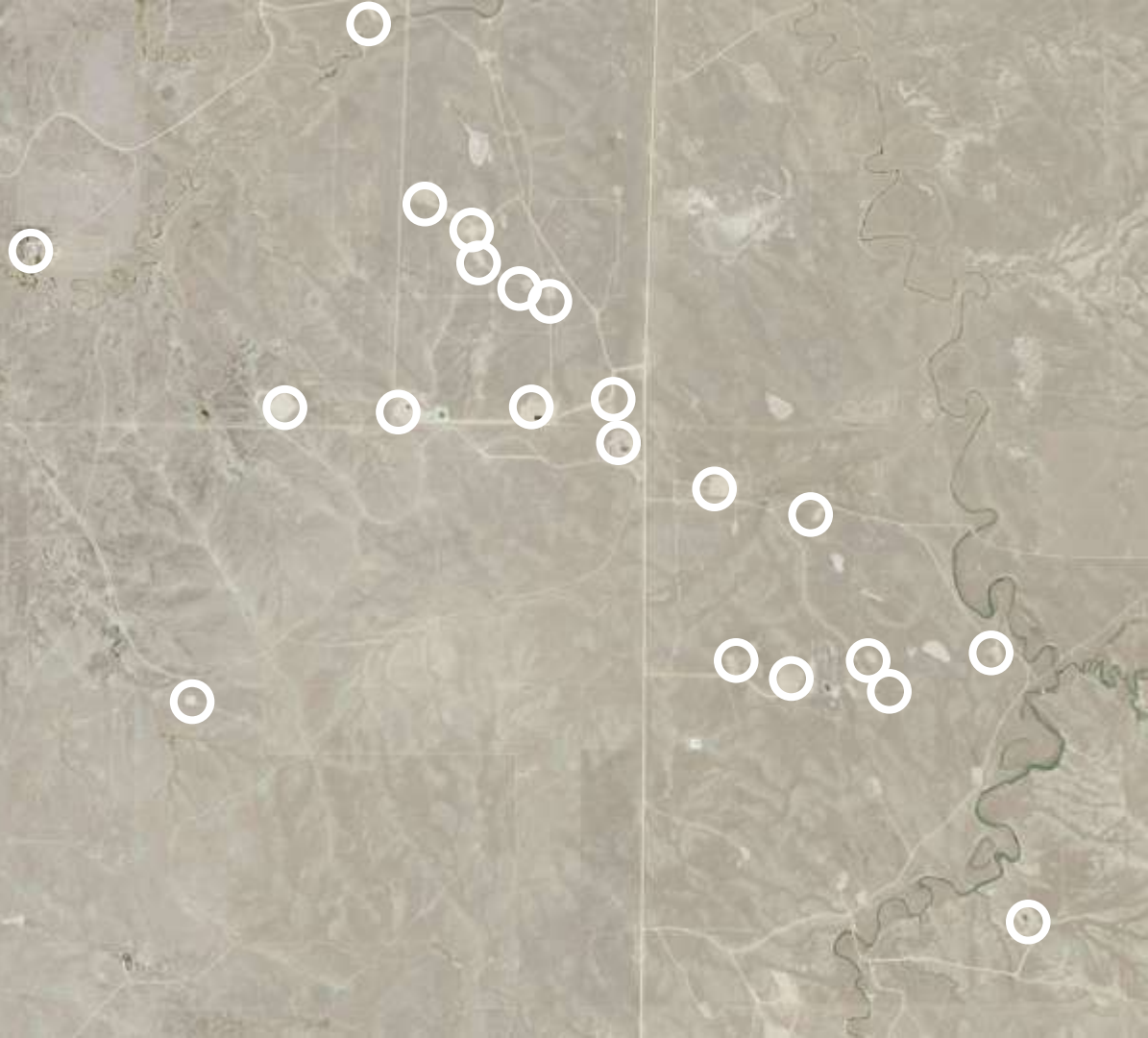


Campbell County, WY
Energy well pads

Source: USDA NAIP

Date: 2012

Analysis: 108 Pads
visible



Campbell County, WY
Energy well pads

Source: Planet Labs

Date: October 2104

Analysis: 189 Pads
visible

Value

~\$3.5M/feature

Delta of \$283M



Brazil
Fields

Source: Landsat

Date: August 8, 2014



Brazil
Burning Fields

Source: Planet Labs

Date: August 9, 2014





Discover how Planet Labs can help you with:



Global Coverage



Fresh Data



Easy Access

Josh@planet.com | planet.com