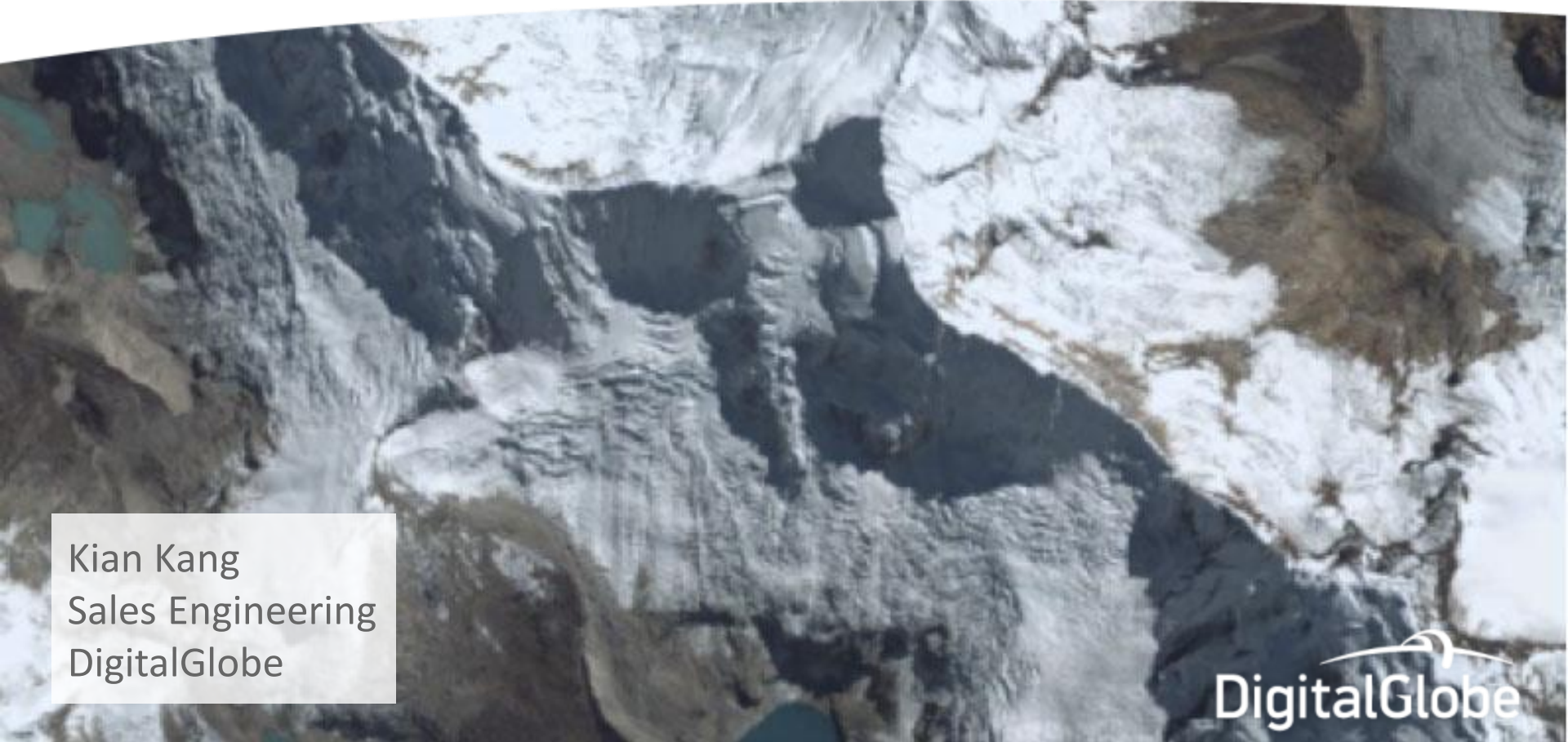


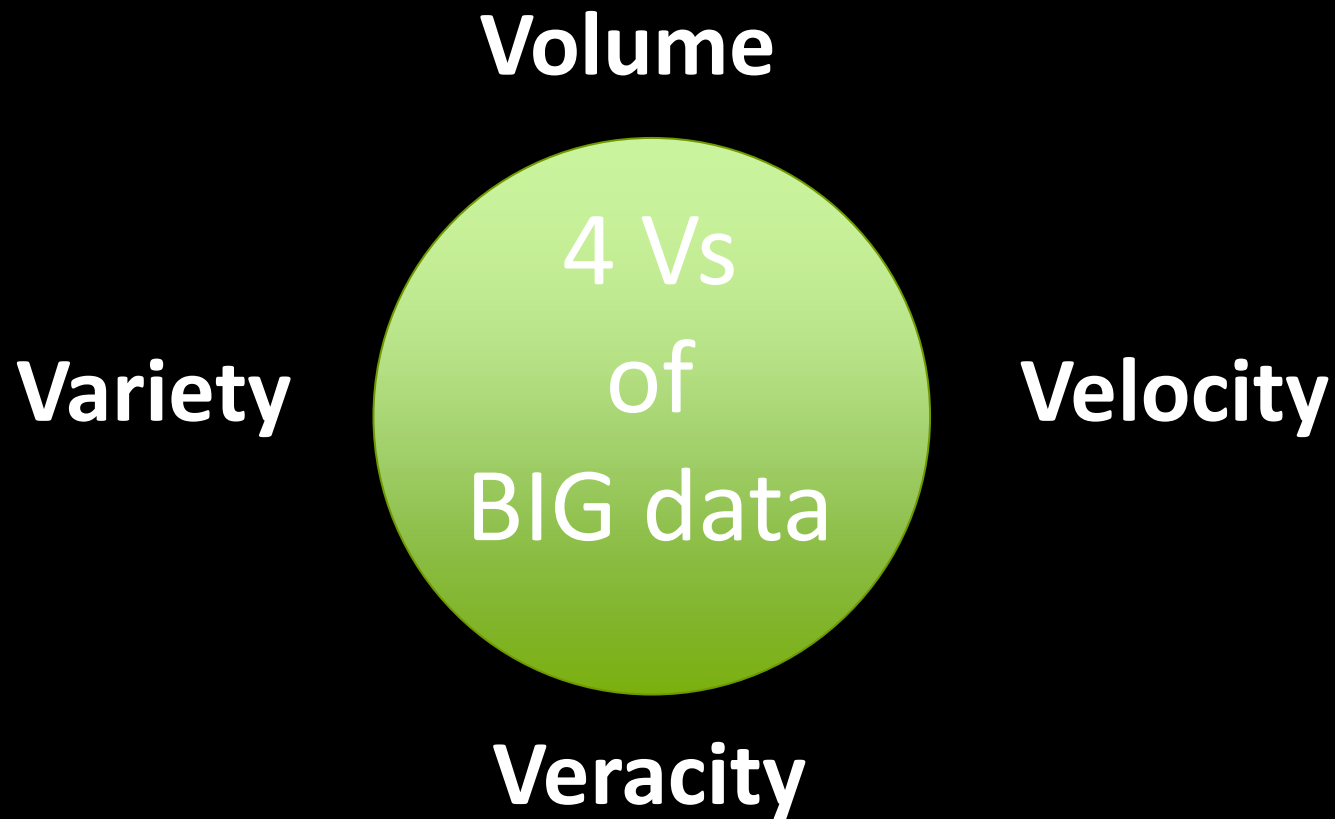
Geospatial Big Data

Living in world of data abundance



Kian Kang
Sales Engineering
DigitalGlobe


DigitalGlobe





Last 3 Days



Last 14 Days

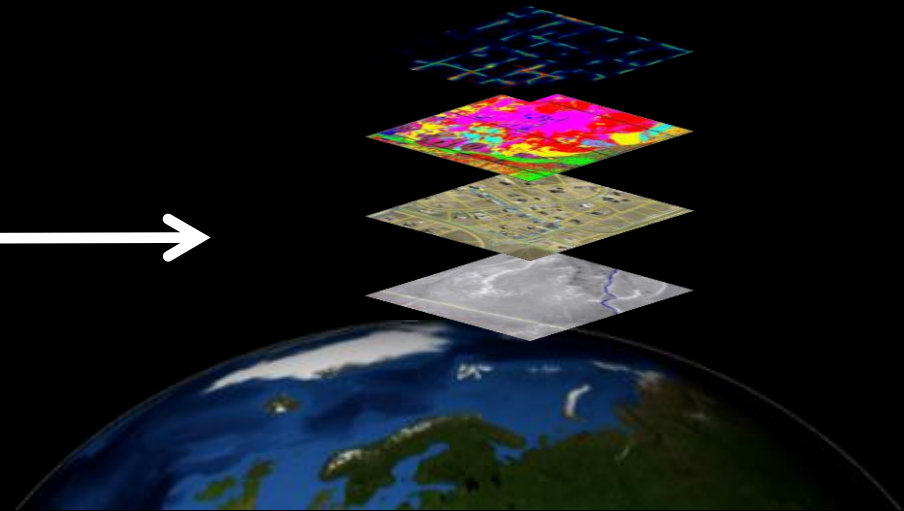


Last 3 Months

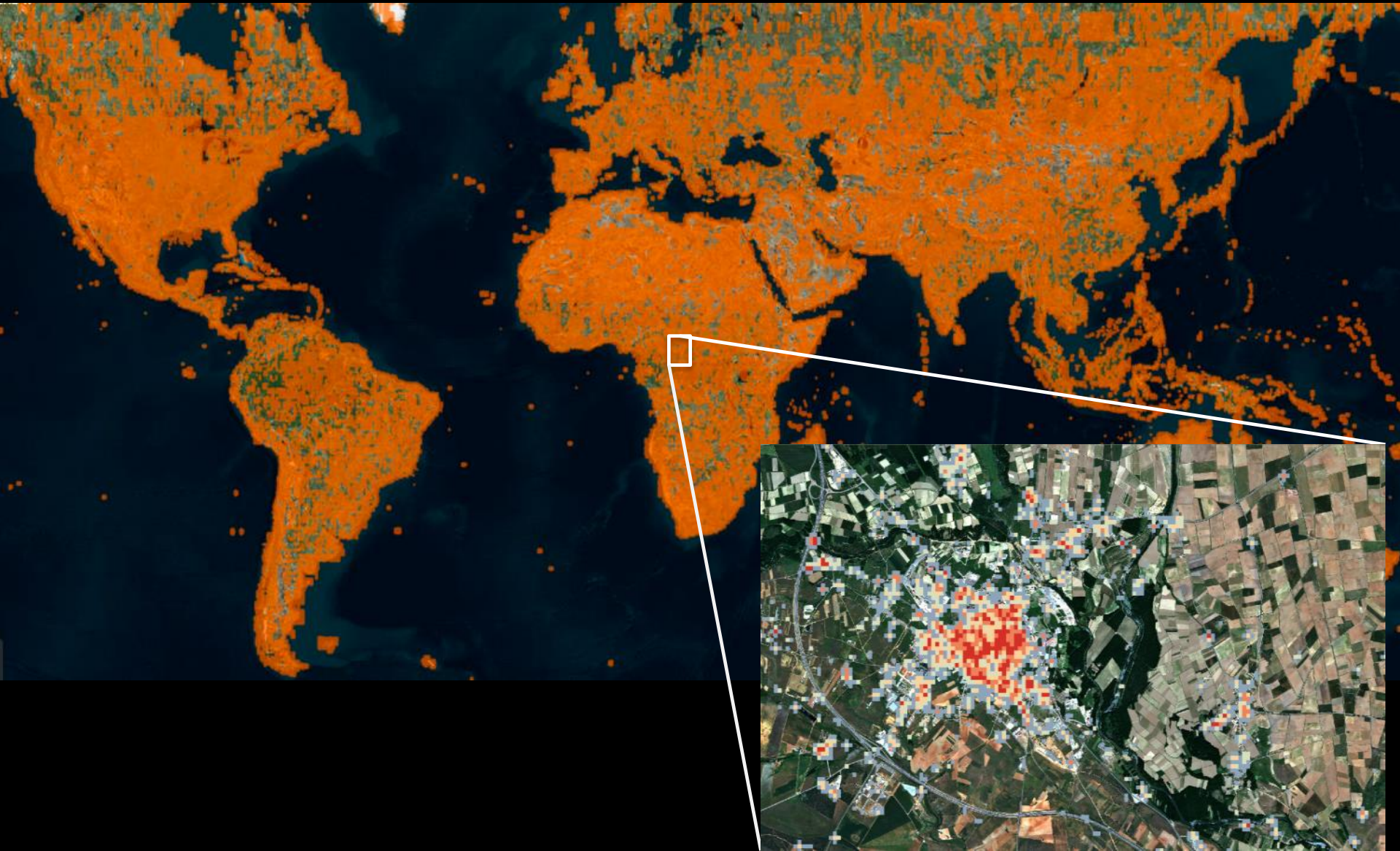
3,500,000 km² collected EVERY DAY
13,200,000,000,000 pixels



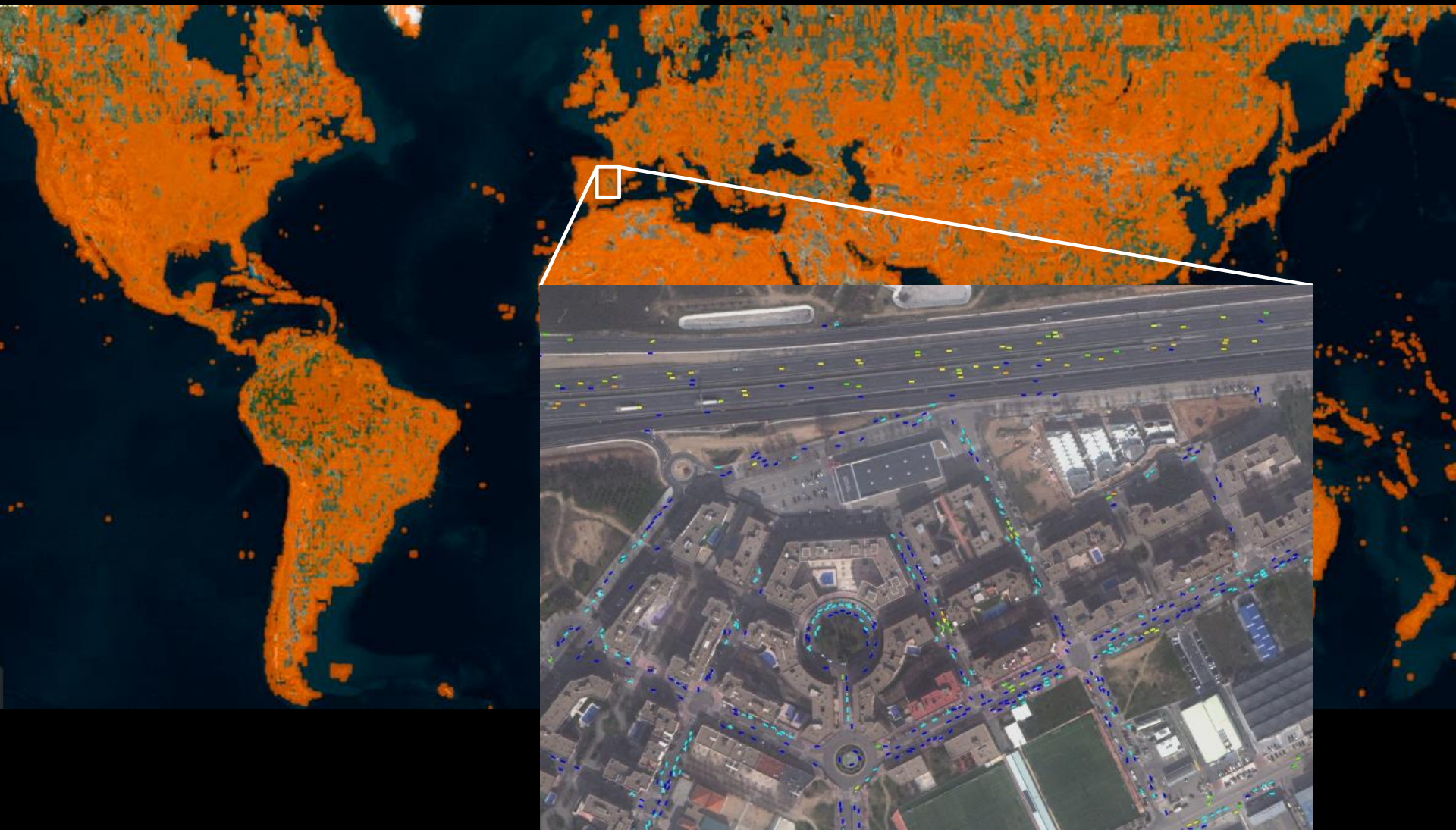
Extract information from imagery at scale...



Show me where...remote dwellings are located



Show me where...all the vehicles are



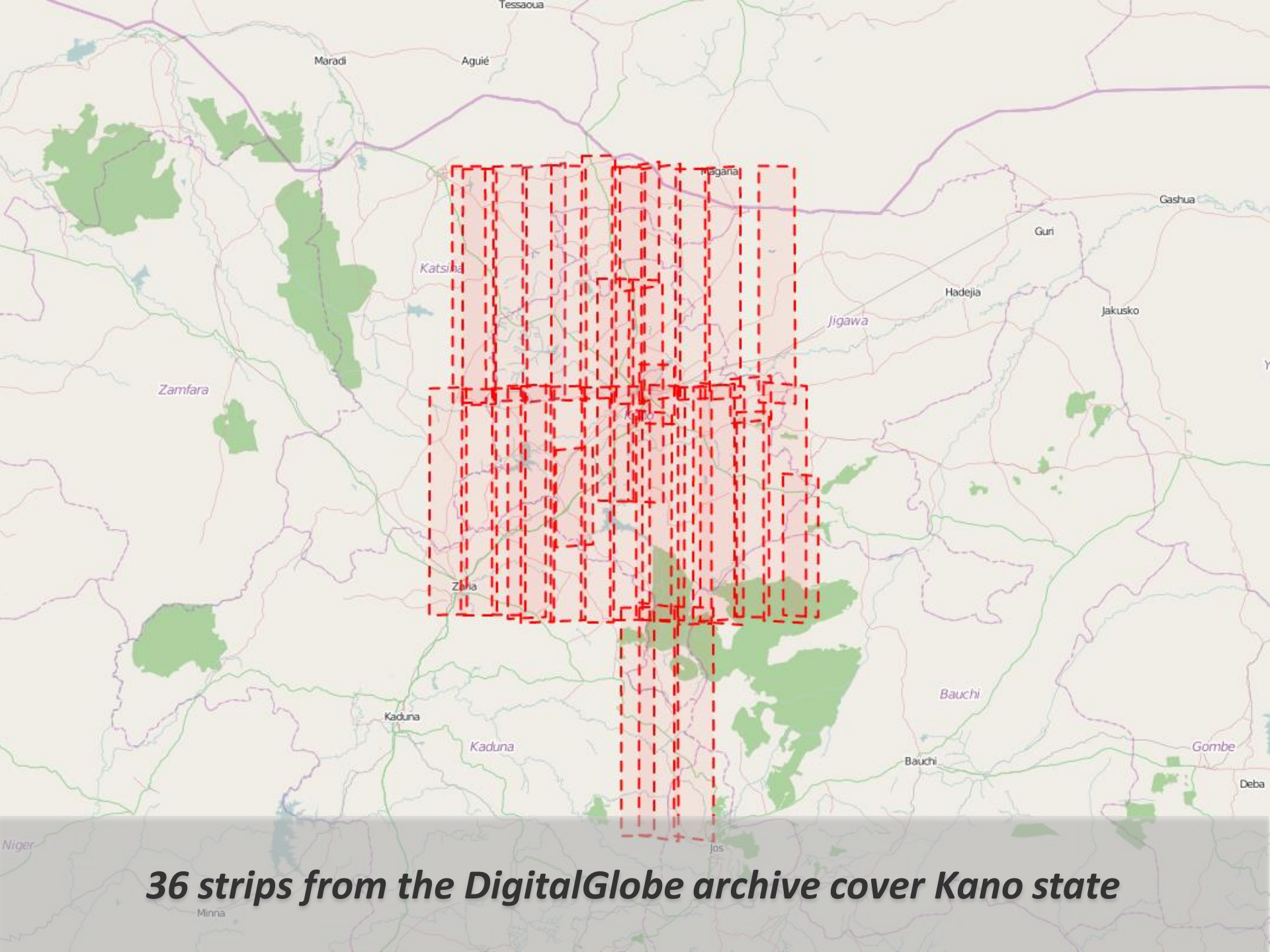
Show me where...all the new construction is



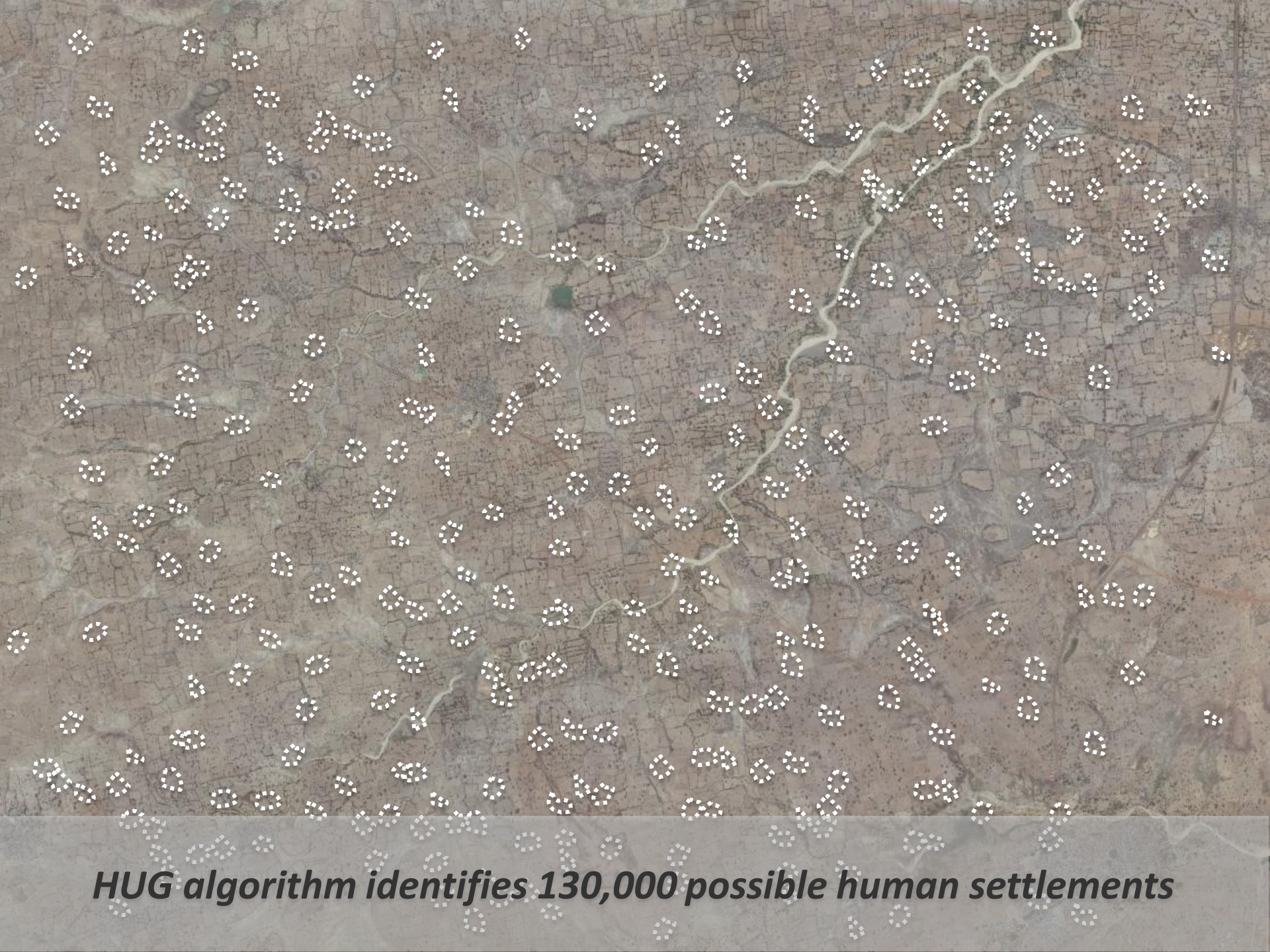
Real Madrid v. **Atlético Madrid**







36 strips from the DigitalGlobe archive cover Kano state

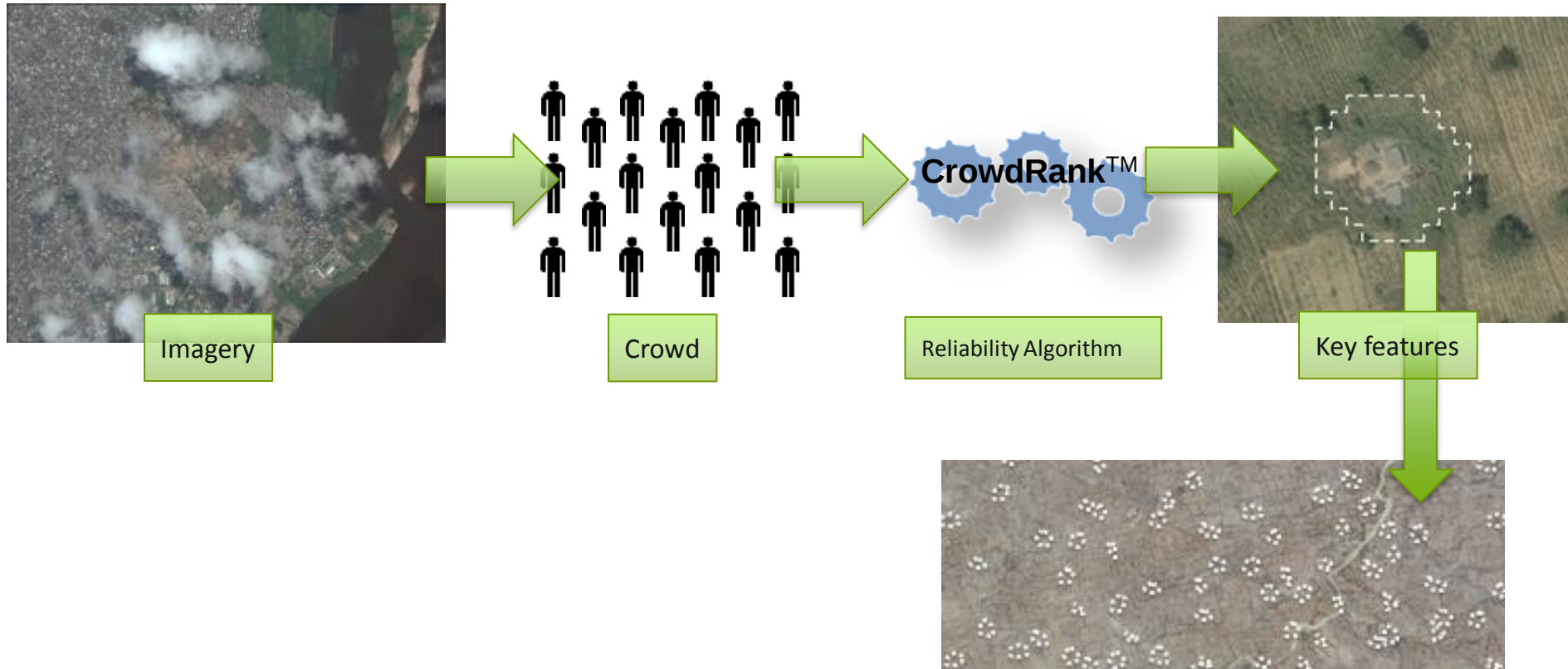


HUG algorithm identifies 130,000 possible human settlements

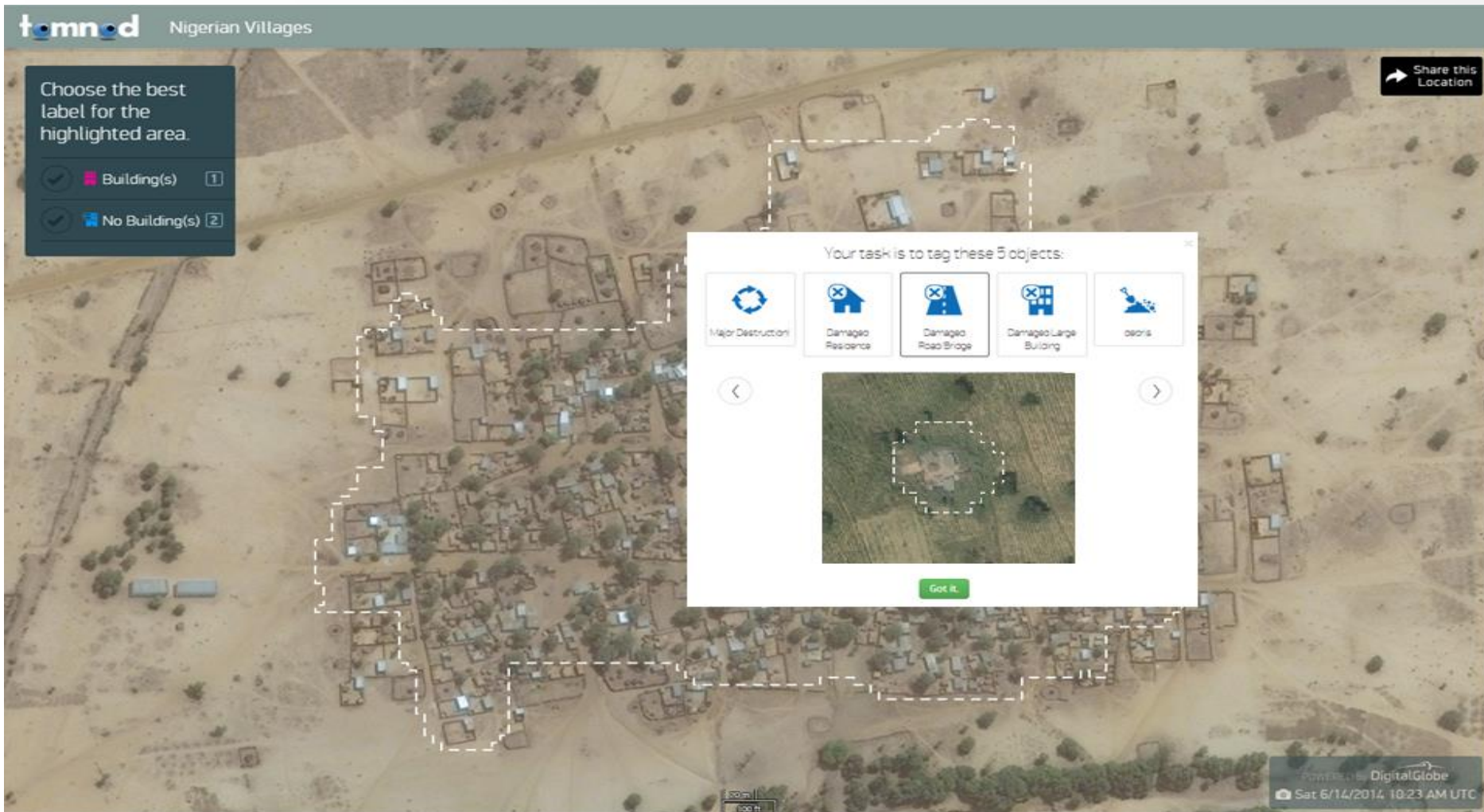
DigitalGlobe crowdsourcing verification

Problem: Exploiting mountains of imagery (20,834 km² in four days)

Solution: FAST Image insight through crowdsourcing



DigitalGlobe crowdsourcing verification





Choose the best label for the highlighted area.

☒ Building(s) 1

☒ No Building(s) 2

Share this Location

Tomnod crowd validates each location



Choose the best label for the highlighted area.



Building(s)

1



No Building(s)

2



Share this Location

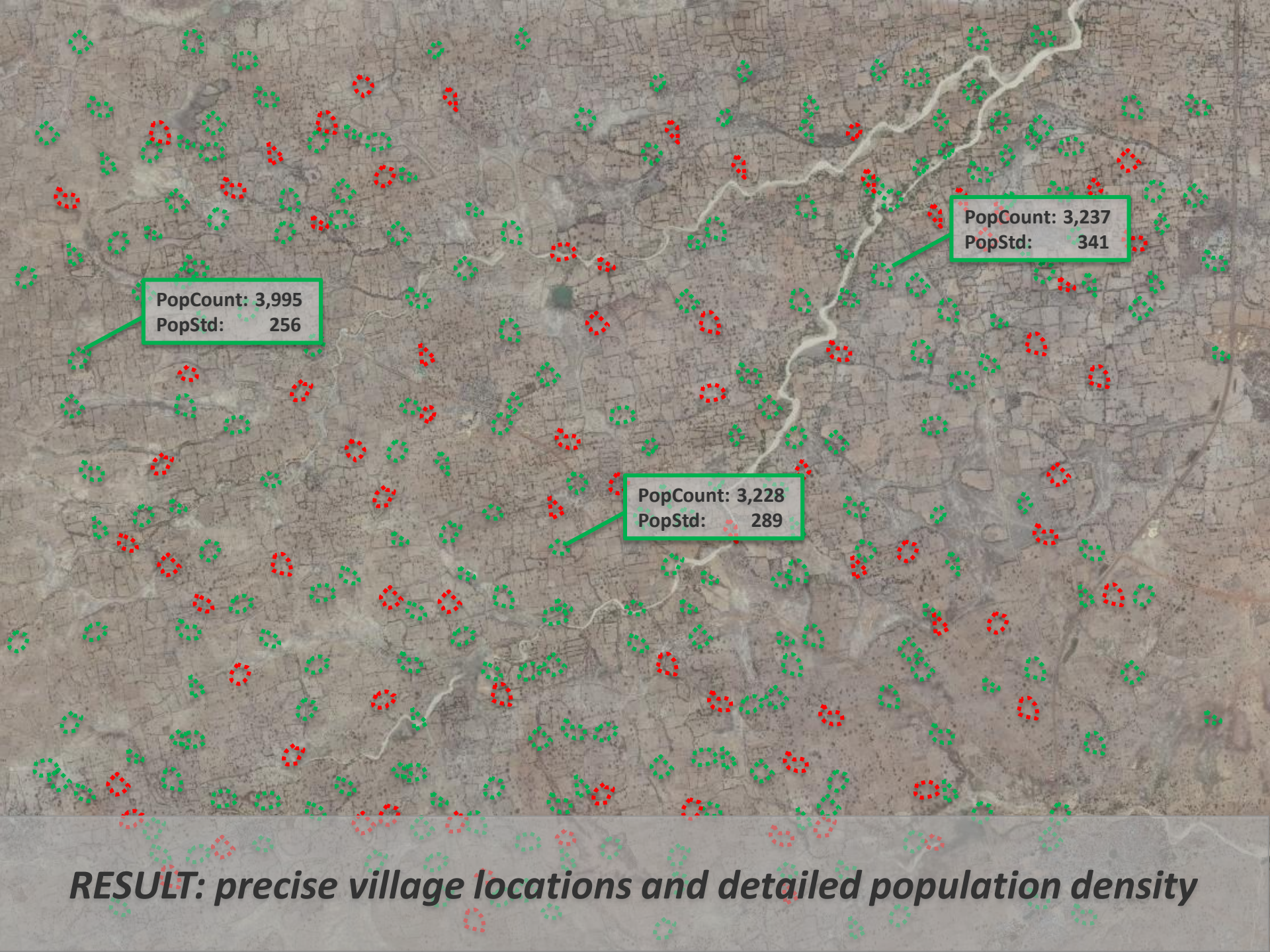
Tomnod crowd validates each location

POWERED by DigitalGlobe

Sun 10/28/2012 10:07 AM UTC



... repeat 680,000 times ...

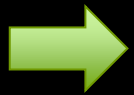


RESULT: precise village locations and detailed population density



What are we doing to solve Big Data problems?

1. Processing TB of high quality multiband imagery requires storage and compute



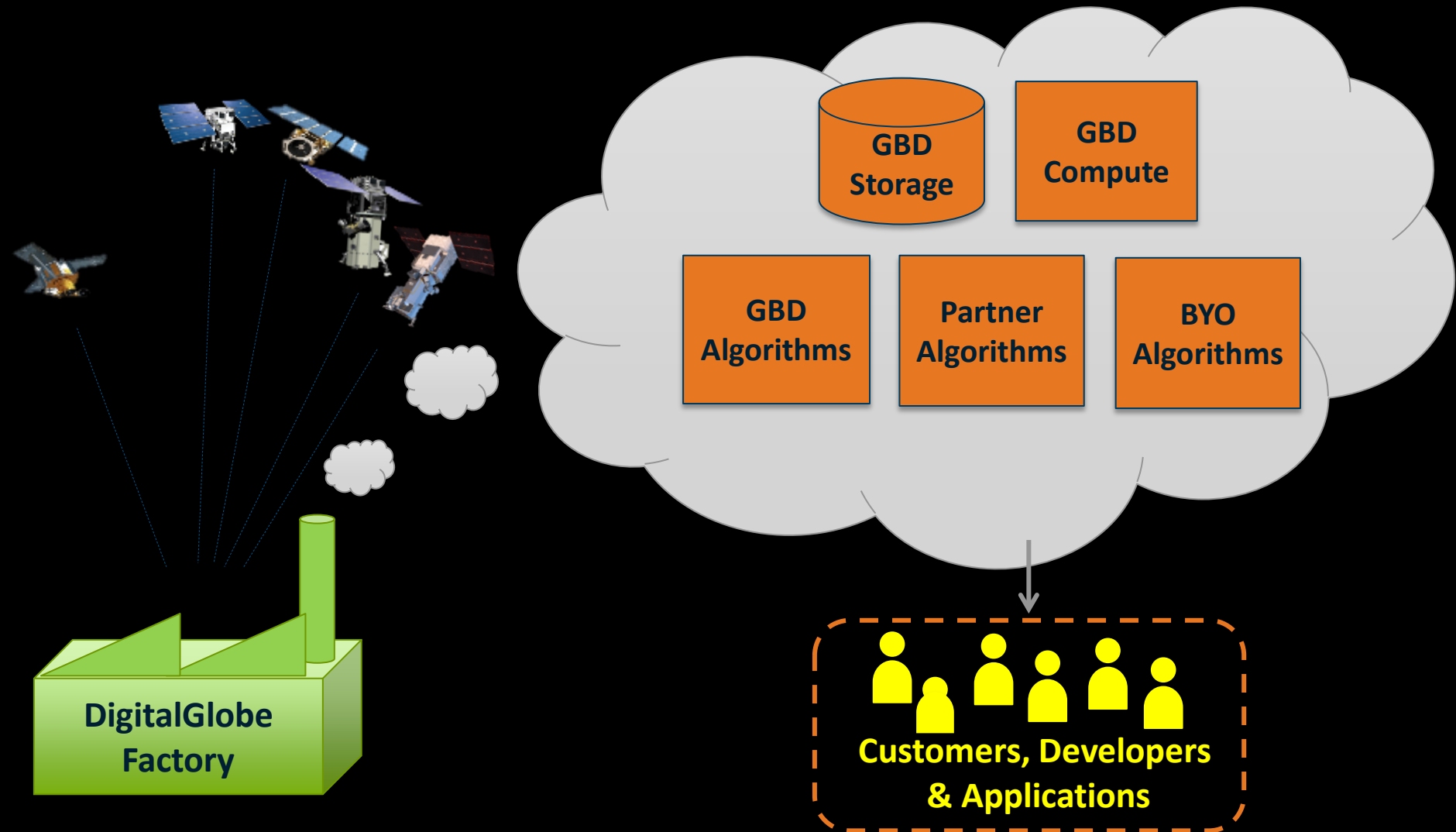
Cloud based compute platform to move the Compute to the Data

1. Selling per km² “data as an asset” pricing is expensive for large scale extractions



Tier based pricing with Developer friendly tiers to encourage innovation

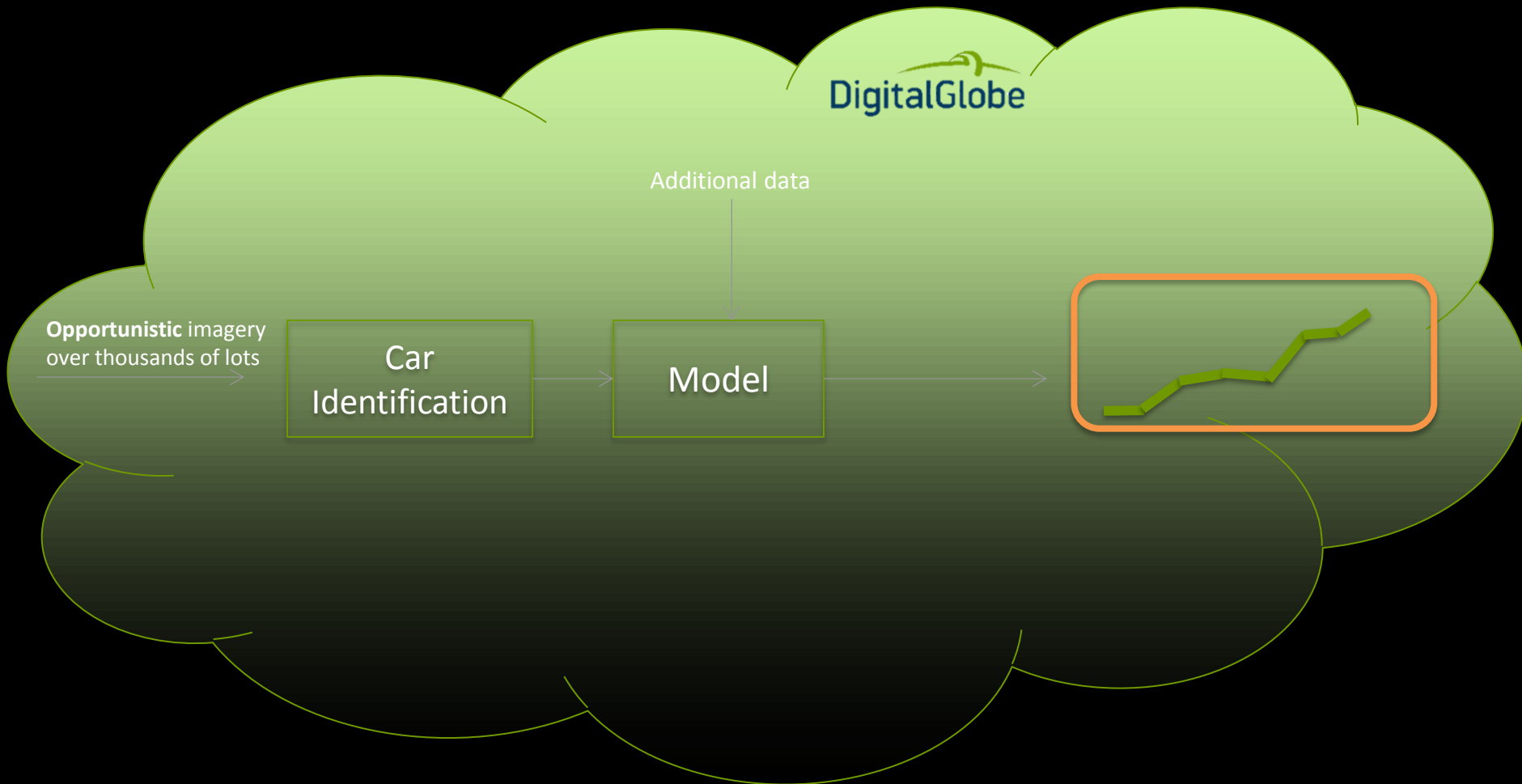
Geo Big Data Platform as a Service (PaaS)



Example: Retail measurements



Big Data Approach



Who are applicable users?

- 1) Need multi-band imagery for **automated** processing (4-band, 8-band, etc...)
- 2) Require analysis of large areas or over a long time period
- 3) Forward leaning and per km² pricing is way beyond their budget

KEYWORDS: Multiple data sets, correlations, Amazon Web Services, AWS, APIs



Thank You

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