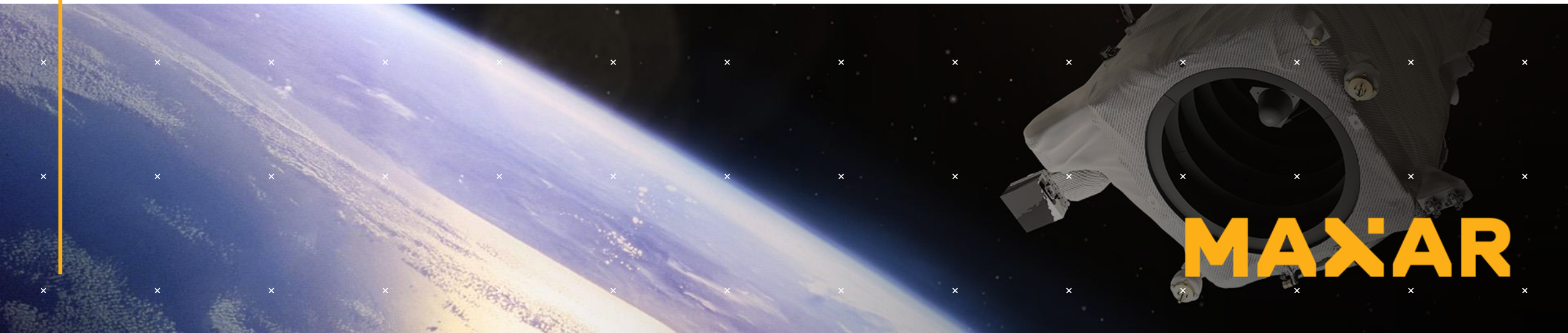
Maxar as a Source of Information
Introducing WorldView Legion and Basemap Products

Unprecedented visibility into our changing planet

Presented by Ilya Yudin. Irkutsk, 2021



An industry pioneer and continued leader

As the industry leader in high-resolution satellite imagery and geospatial information, Maxar designs, owns and operates best-in-class imaging satellites and associated ground systems, infrastructure and production systems.

#1 IN GLOBAL IMAGERY SALES

50+ FOREIGN GOVERNMENTS' PARTNER OF CHOICE

25+ YEARS OF COMMERCIAL IMAGERY LEADERSHIP

90% SHARE OF COMMERCIAL FOUNDATIONAL GEOINT FOR THE U.S. GOVERNMENT

175 COUNTRIES, AND 550 CUSTOMERS, SERVED GLOBALLY

WorldView Legion

The next-generation of Earth observation satellites

WorldView Legion dramatically expands our ability to image the most rapidly changing areas on Earth to better inform critical, time-sensitive decisions.

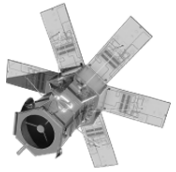
- Up to 15 revisits per day, with the Maxar constellation
- Triples Maxar capacity to collect 30 cm class imagery
- Triples our overall capacity over high-demand areas
- Highest image quality and geometric accuracy available
- Simultaneous tasking, image and downlink with customer ground stations
- Compatible with global infrastructure and access programs for Maxar customers

WorldView Legion is the cornerstone of Maxar's future Earth imaging constellation

RETIRED / IMAGERY AVAILABLE IN ARCHIVE

IKONOS
82 cm resolution
9 m CE90
6 m RMSE

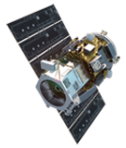
QuickBird
65 cm resolution
23 m CE90
10.8 m RMSE



WorldView-4
31 cm resolution
5 m CE90
9.7 m RMSE

ON-ORBIT / NEW AND ARCHIVE IMAGERY AVAILABLE

WorldView-1
50 cm resolution
<4 m CE90
3 m RMSE

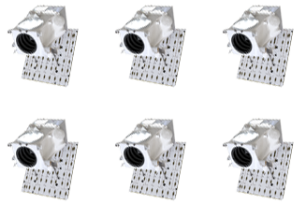


GeoEye-1
41 cm resolution
<3 m CE90
2.7 m RMSE

WorldView-2
46 cm resolution
<3.5 m CE90
3 m RMSE

WorldView-3
31 cm resolution
<3.5 m CE90
2.5 m RMSE

In production



WorldView Legion
29 cm resolution
<5 m CE90
1.5 m RMSE

Powered by innovative collection strategies

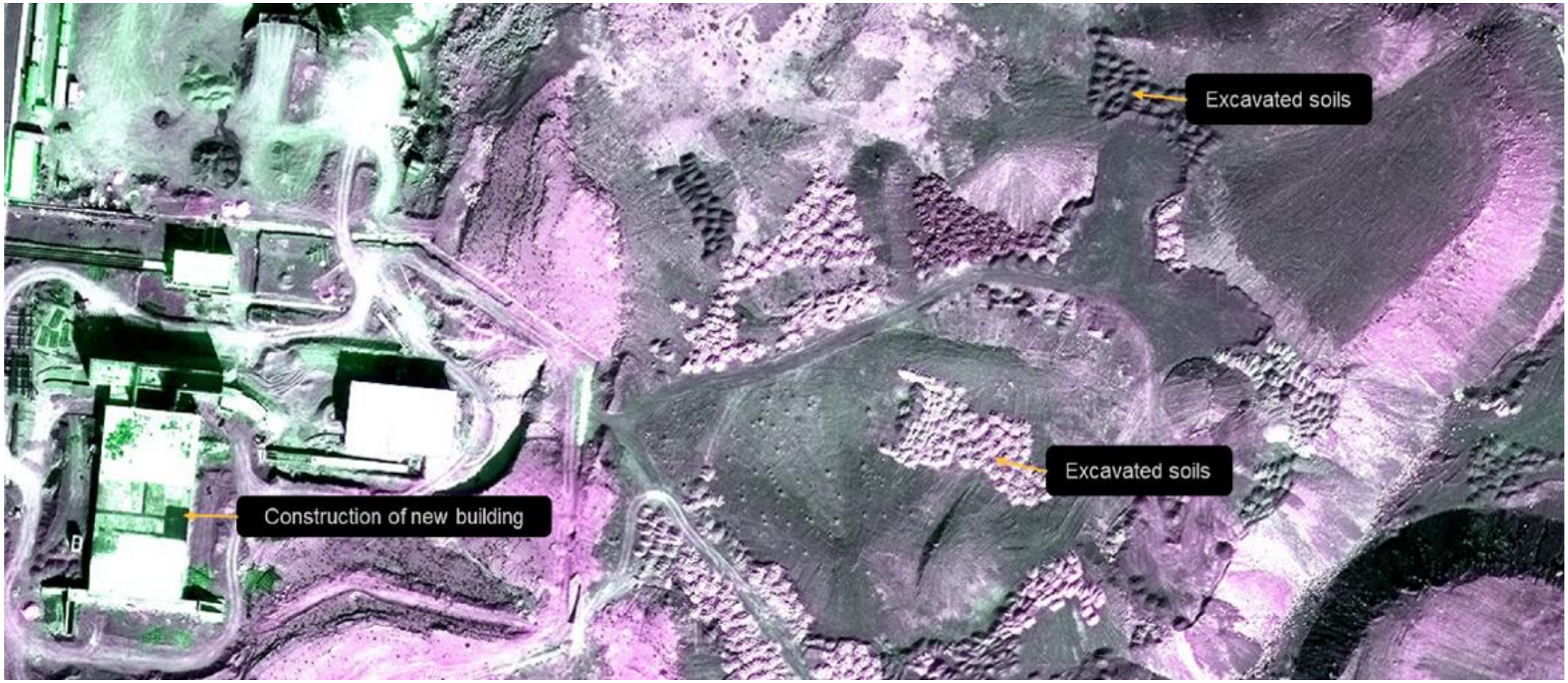
WorldView Legion is optimized for customer needs and enabled by agile functionality and modeling.

- High-agility point collects for monitoring missions and large area collects for mapping missions
- Compatible with our existing global infrastructure for our mission partners

One Maxar satellite could collect all of Taiwan in one pass at 50 cm resolution

Spectral richness reveals detail that would otherwise be hidden

8 spectral bands on WorldView Legion enable deeper analysis



High geolocation accuracy results in highly precise, reliable maps

Have confidence that an object's position in an image accurately reflects its true ground position

High satellite agility enables challenging collections

WorldView Legion will dramatically slew to collect the maximum number of images and at the most extreme angles

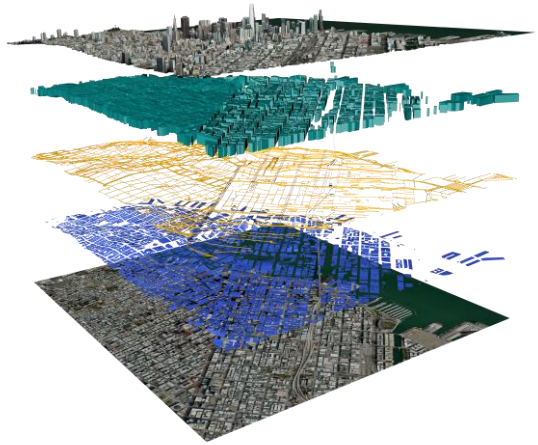
WorldView Legion's combination of image quality and frequency enables key use cases

Remote monitoring

More imagery, collected from sunup to sundown, for a current view changing situations.

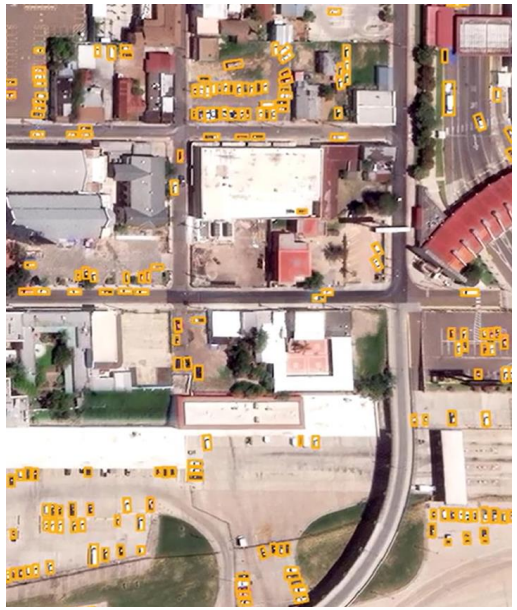
Accurate mapping

Accurate, comprehensive and timely data for a clearer, more reliable foundational picture of the planet.



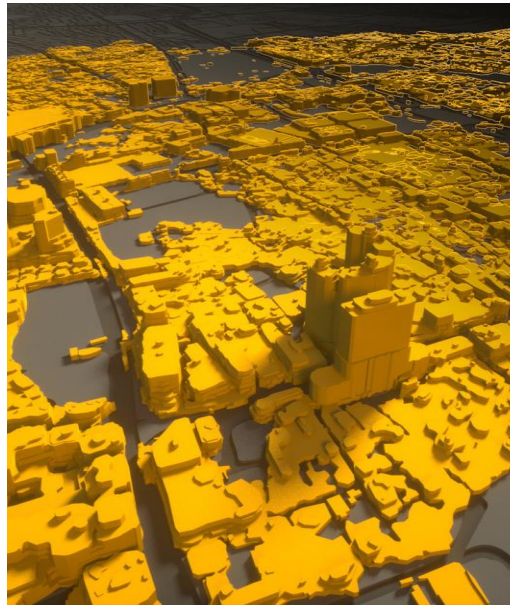
Analytics at scale

A continuous feed of current, clear imagery enables timely pattern-of-life and human geography analysis.



The globe in 3D

High agility and stereo collection capabilities will produce more data to fuel creation of 3D models.



Mosaic Basics

Image strips over large areas can be challenging due to clouds, seasonal variation, and image overlap

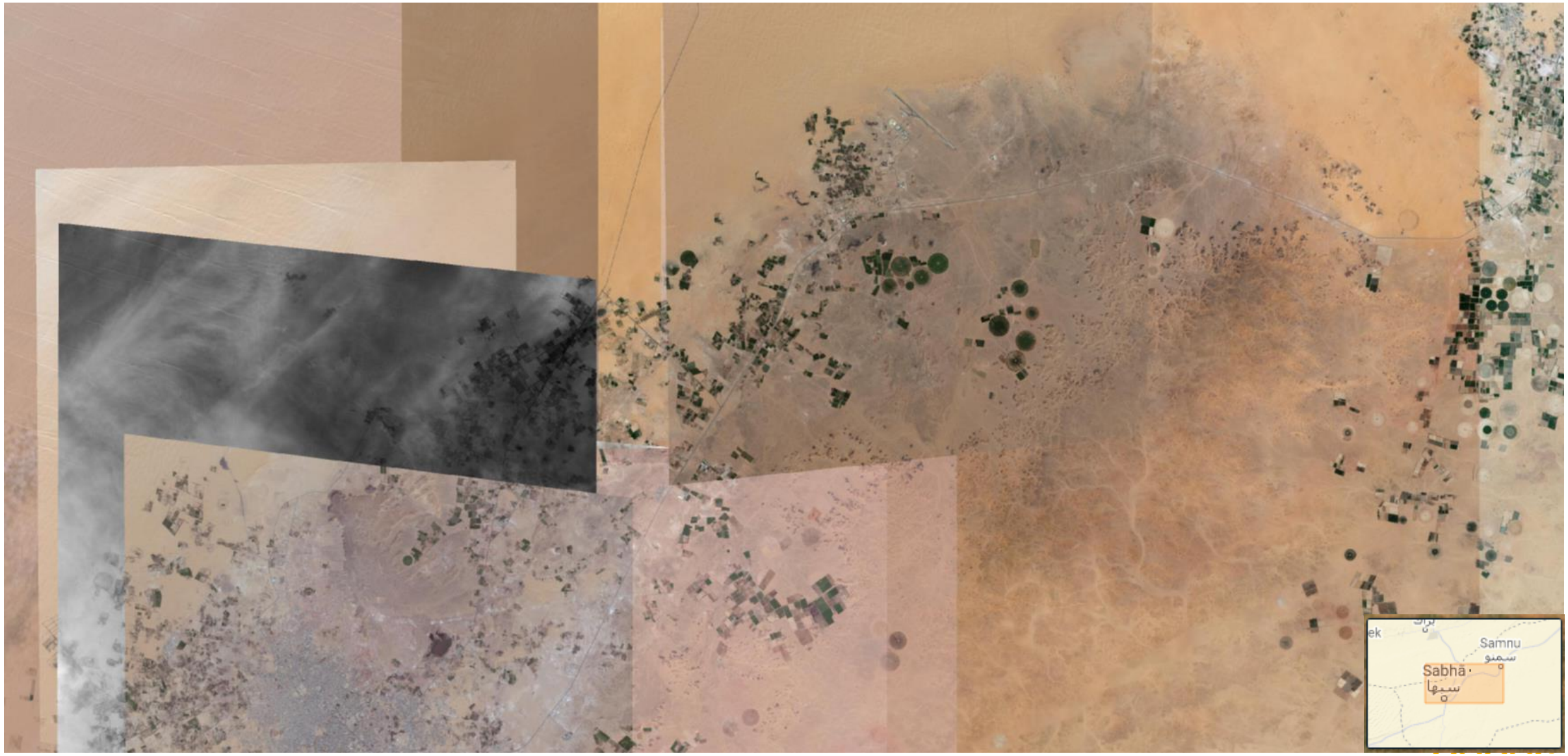


Image mosaics offer a single, composite layer over large areas with optimal aesthetics and visual consistency

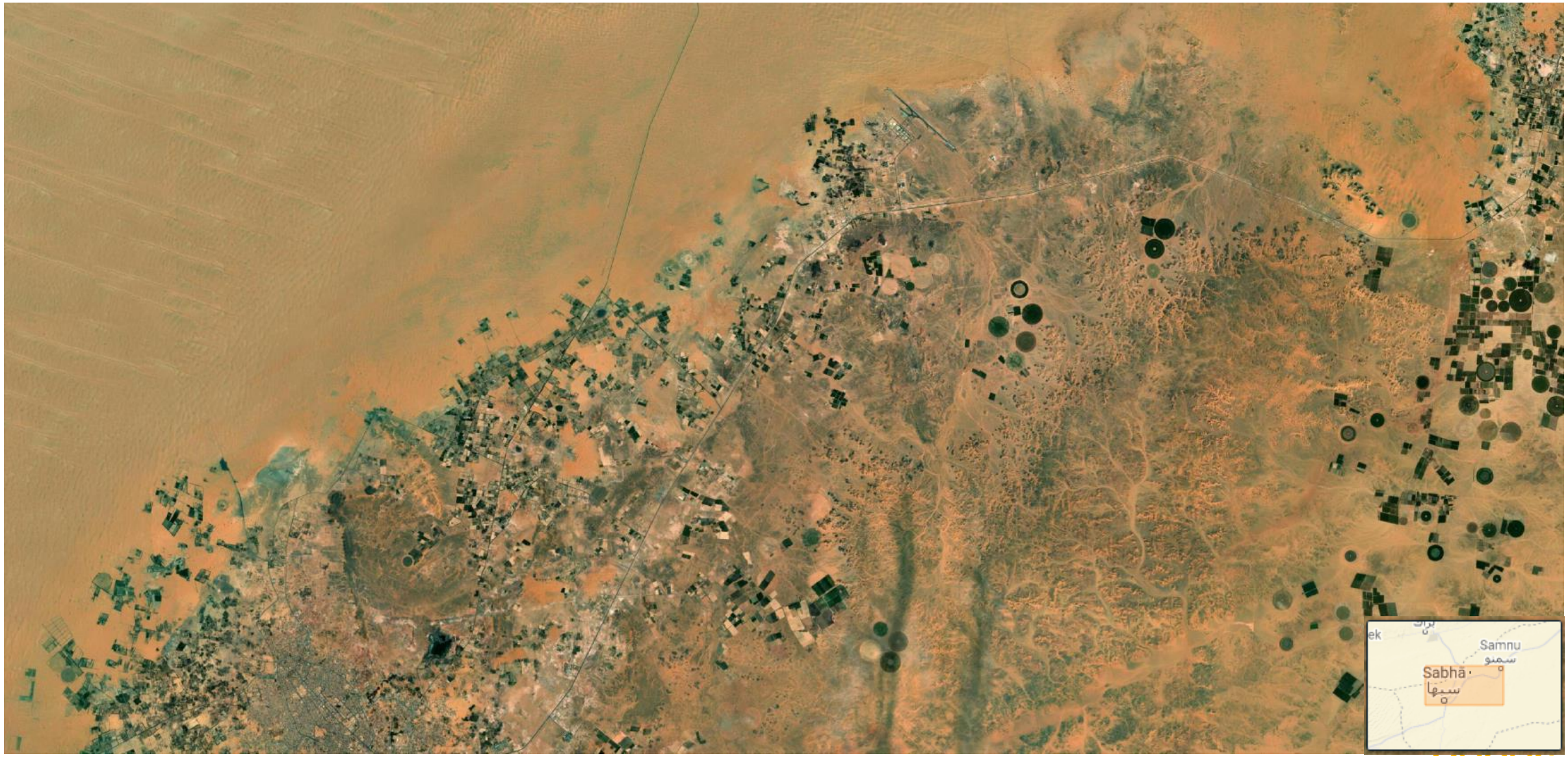


Image mosaics are delivered with seamlines and source image metadata, including image collection dates

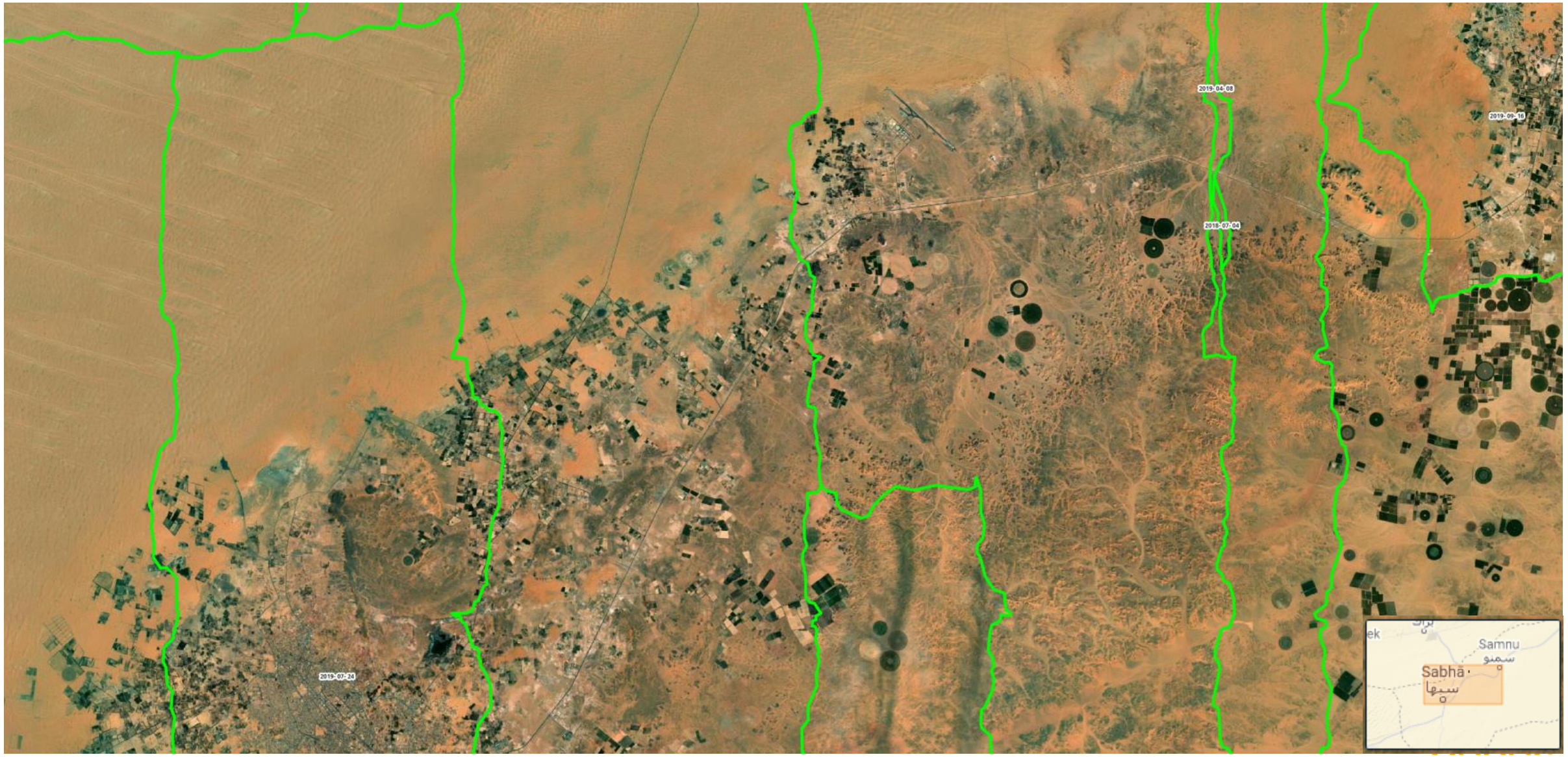
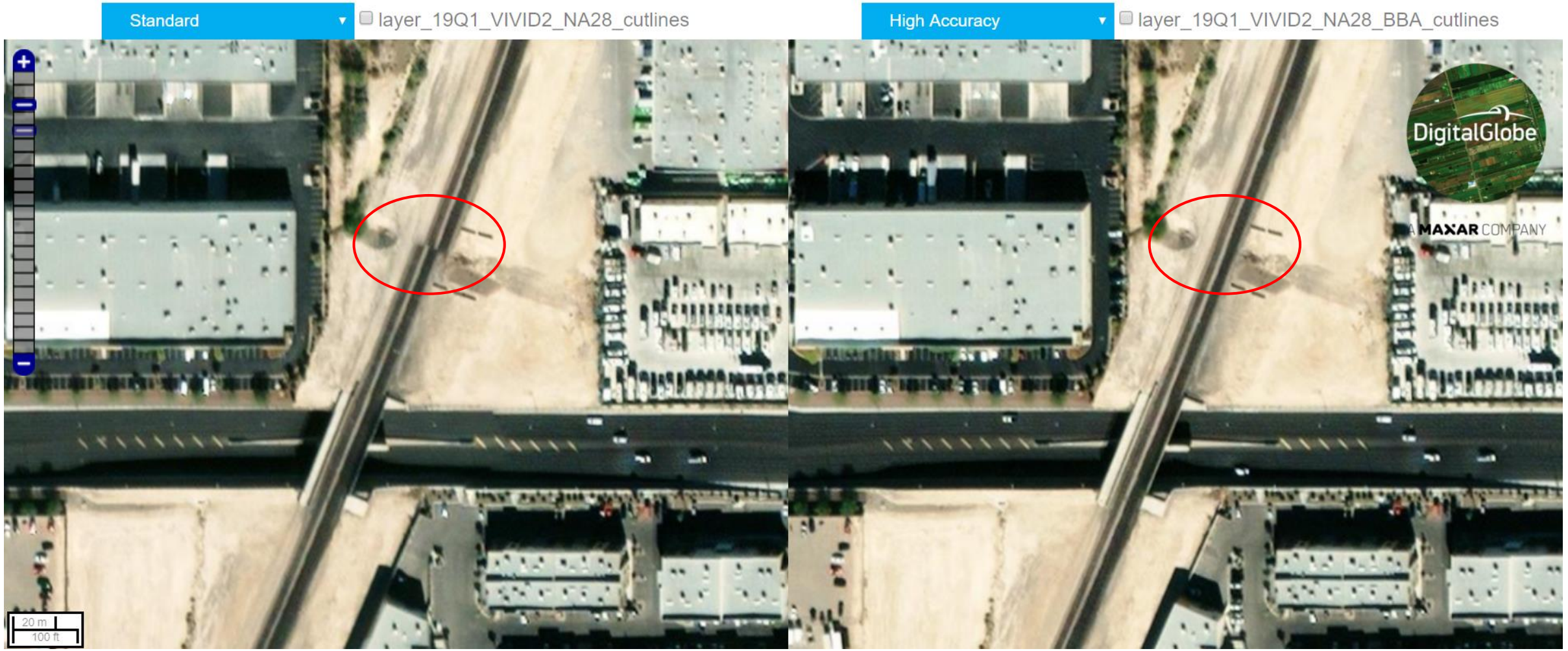


Image bundling improves the continuity of linear features

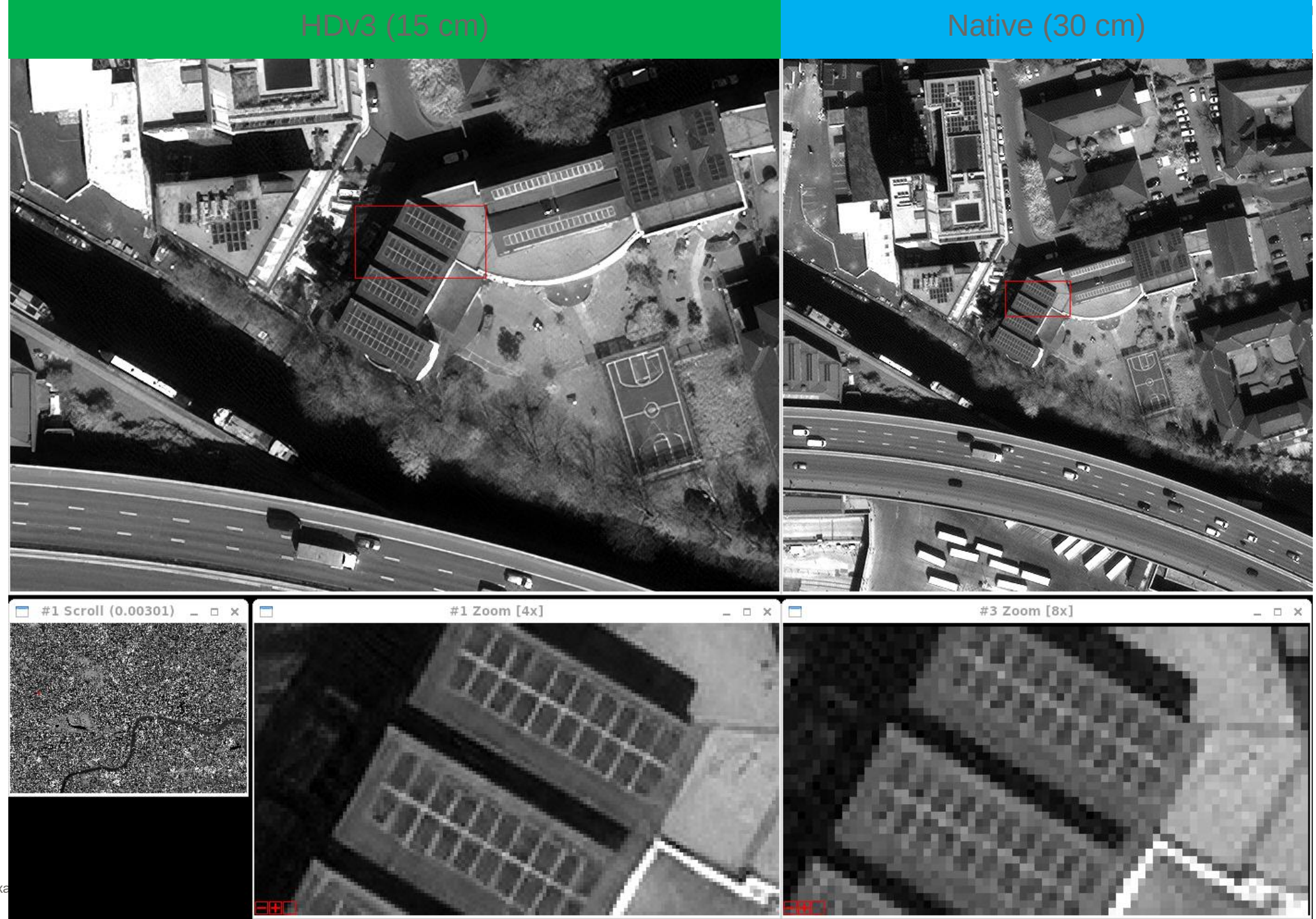


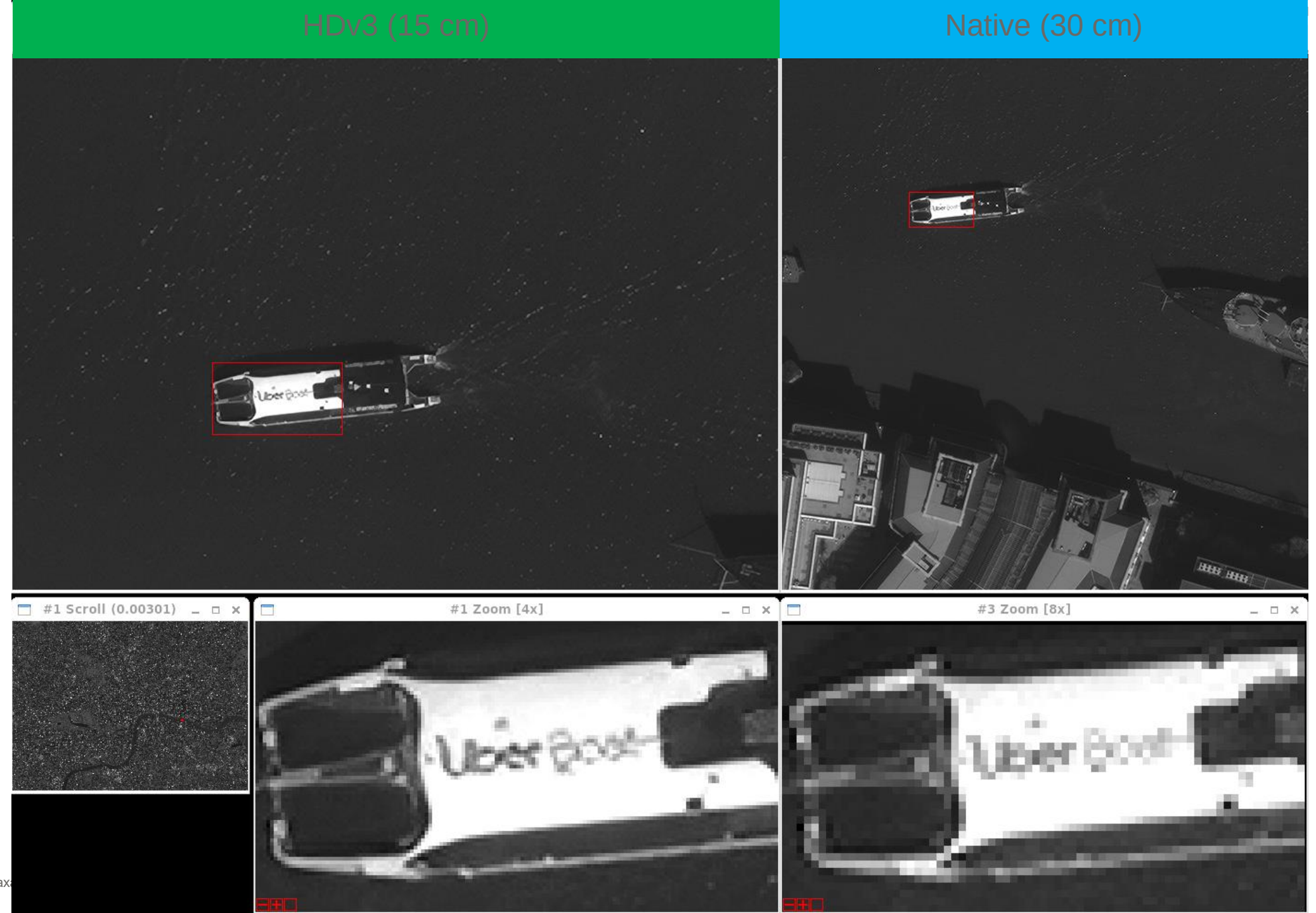
Company proprietary – External recipients

Our HD sampling technology improves image clarity

With HD sampling, mosaics with 30cm Product GSD are available over large areas, by leveraging source imagery from our entire constellation and archive

Company proprietary – External recipients





MAXAR

Our 4-band mosaics enable spectral analysis at scale

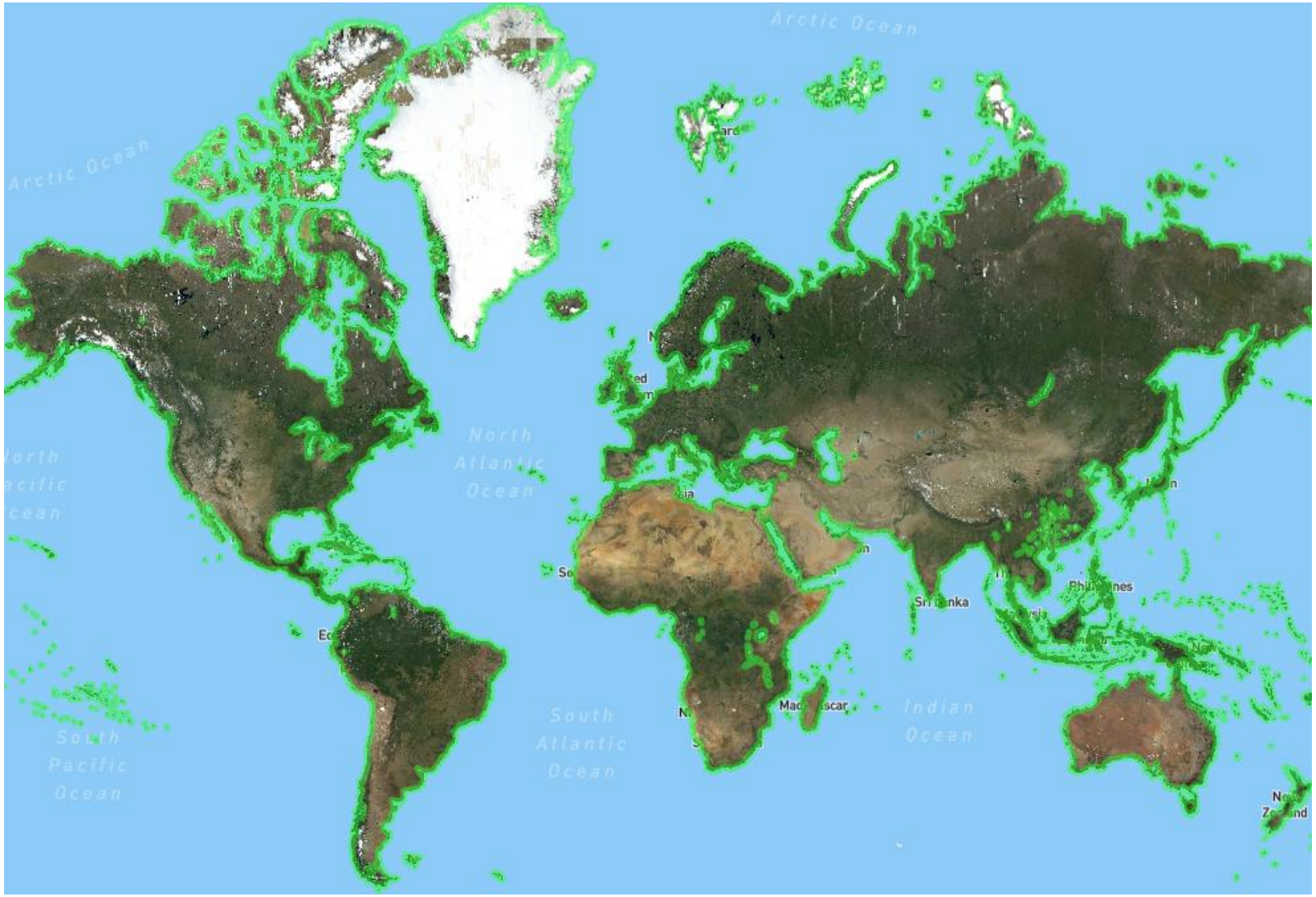
- 4-band mosaics include BGRN bands: blue, green, red, and near-infrared
  - 8-bit pixel depth
  - Pan-sharpening
- Bands can be assigned in GIS software to display different band combinations, which highlights different ground features
- Use of the infrared band (NRG) enables a false color view that shows healthy vegetation as red
  - Enables large scale identification of vegetation as well as forest/tree health

Company Proprietary – External Recipients

Product Overview

Maxar’s imagery basemaps are among the best in the market

- Basemaps produced from the world's largest, high-resolution image archive
- Images curated and color-balanced for optimal visual consistency over large areas
- Rapid-processing in AWS enables production and delivery within weeks
- Annual updates available, ensuring the most current, accurate image layer possible



Our imagery basemaps offer solutions from metro to global scale

Vivid

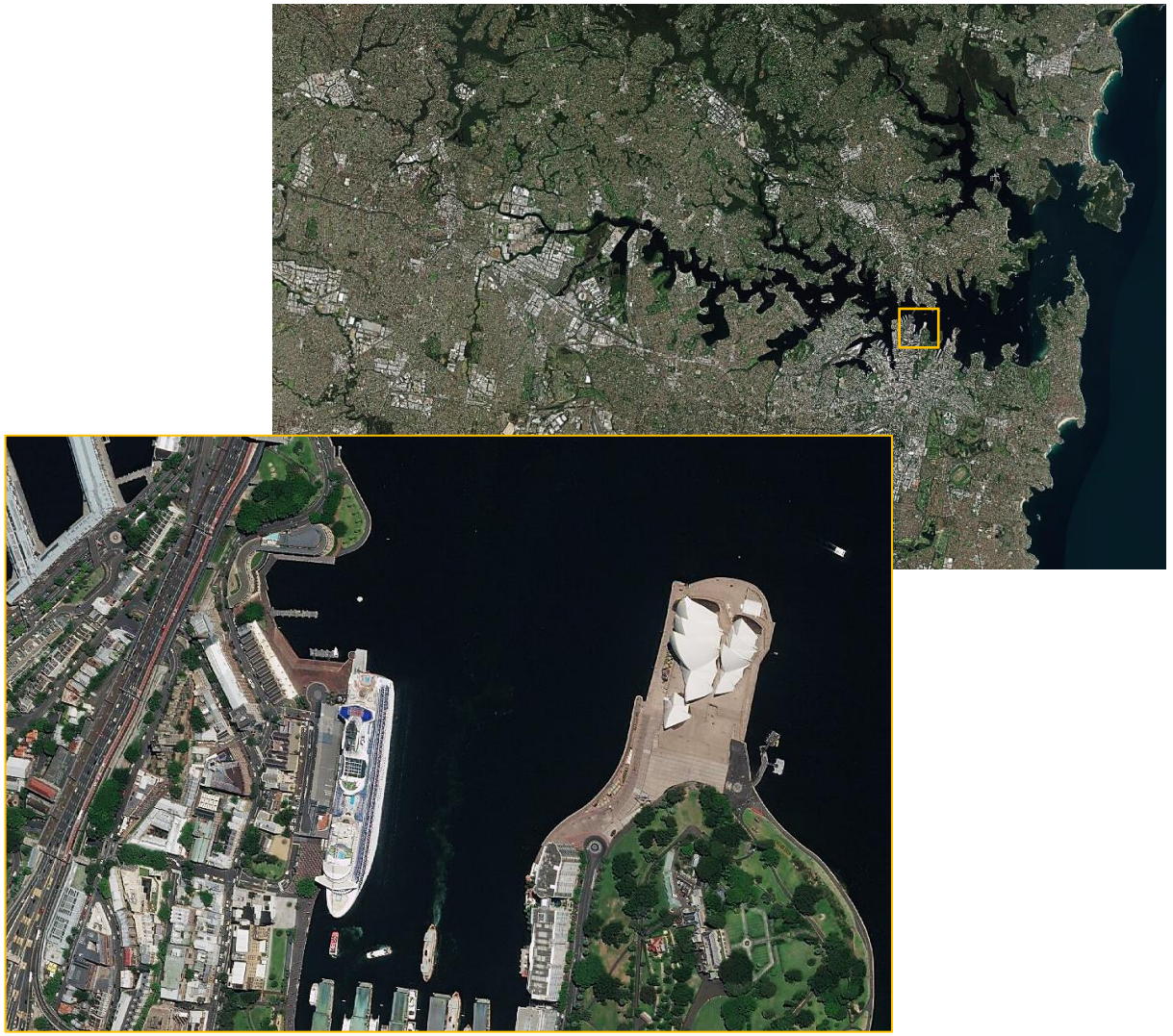
- Imagery basemaps globally / across the globe
- Produced annually per specs

Metro

- Imagery basemaps for 6,000 metro and other high-interest areas
- Produced annually per spec

Dynamic

- Imagery basemaps for requested areas
- Produced at time of order per order parameters / mosaic specs



Vivid at a glance

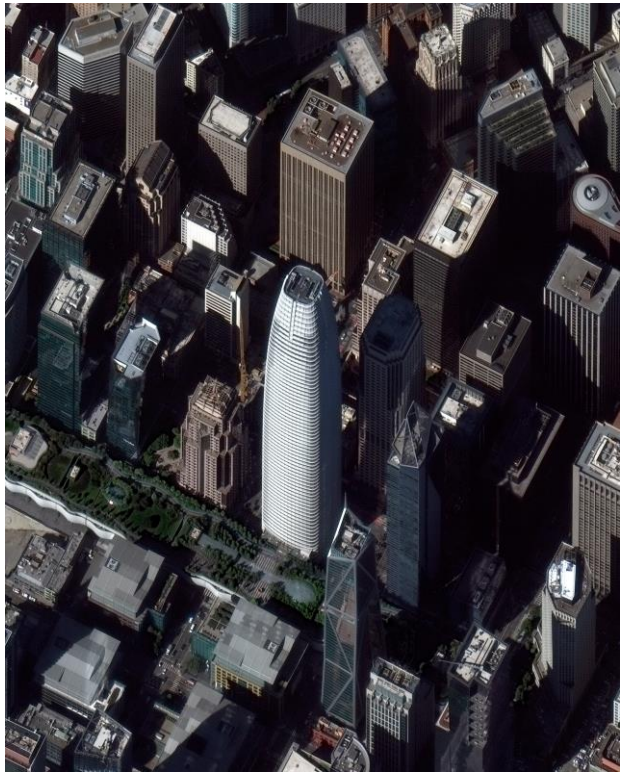
- Produced to a defined specification
- Available "off the shelf" for defined areas
  - Basic and Standard: global landmass
  - Advanced and Premium: AOIs
- Produced annually with the most current, clear imagery available in the image library
- Resampling to lower resolutions available
- Delivered with seam-line files and source image metadata (image date, ONA)
- Accessible offline (S3, FTP, hard drive), streaming (API) and via SecureWatch

Vivid Advanced and Premium leverage HD to provide superior clarity

Basic | Standard | Advanced | Premium

50cm

30cm HD



15cm HD

Vivid Basic and Vivid Standard offer metro to global coverage

	Basic	Standard
Coverage*	Global landmass	Global landmass
GSD	50cm	50cm/30cmHD
Accuracy	8.5m CE90	5m CE90
Currency	40%<12mo 75%<36mo	40%<12mo 75%<36mo
Bands	3-bands	3-bands or 4-bands
Format**	GeoTiff or Tile cache	GeoTiff or Tile cache
Build Years	**2019, 2020** **2021 – in progress**	**2020** **2021 – in progress**

*Coverage:

- Basic: global landmass, excluding Greenland (pre-2021) and Antarctica
- Standard: global landmass, excluding Greenland and Antarctica

**Format: cloud-optimized GeoTiff ("big tiff") with JPEG compression or Maxar Tile Cache per spec

- Vivid 2.0 is now called Vivid Basic
- Vivid Basic is now available over Greenland!
- Vivid Standard builds at 30cm HD are now available for select countries
- Vivid metadata now includes product-level info
- Vivid Basic and Vivid Standard are available offline and online/streaming via SecureWatch and Spatial on Demand

Vivid Advanced and Vivid Premium are new products!

	Advanced	Premium
Coverage*	Defined areas	Defined areas
GSD	30cm HD	15cm HD
Accuracy	5m CE90	2m CE90
Currency	75%<12mo	90%<12mo
Bands	3-bands	3-bands
Format**	GeoTiff or Tile cache	GeoTiff or Tile cache
Build Years	**2021 – in progress, limited coverage**	**2021 – in progress, limited coverage**

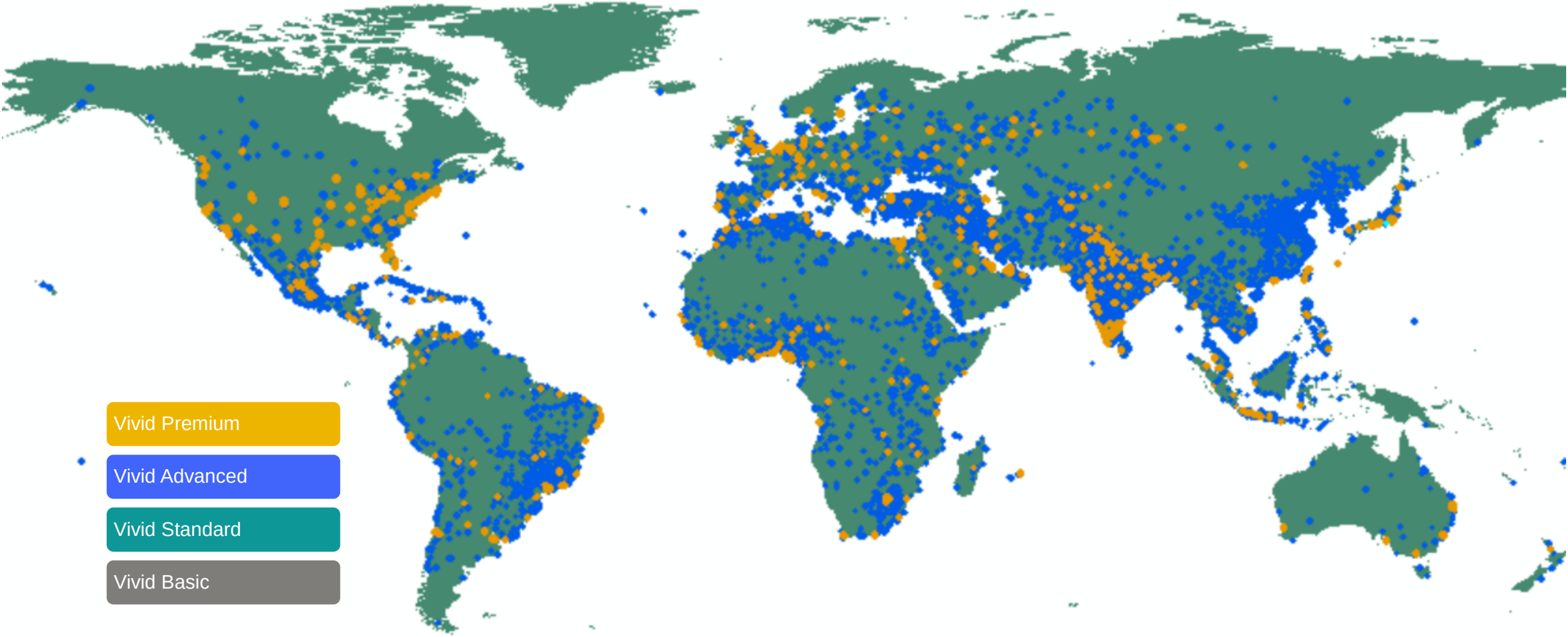
*Coverage:

- Advanced defined areas include populated areas, high-interest sites
- Premium defined areas include select major urban centers

**Format: cloud-optimized GeoTiff ("big tiff") with JPEG compression or Maxar Tile Cache per spec

- Vivid Advanced: 30cm HD and 5m accuracy with committed currency and aesthetics for populated and high-interest areas globally
  - Limited builds in 2021
  - Rollout and 2,000+ areas planned in 2022
- Vivid Premium: 15cm HD and 2m accuracy with committed currency and aesthetics for major urban centers globally
  - Limited builds in 2021
  - Rollout and 100+ areas planned in 2022
- Vivid Advanced available in SecureWatch now; Vivid Premium coming in 2022

Vivid Advanced and Premium have planned build areas in 2022, and will also be available for requested AOIs



Vivid Advanced and Premium will offer significant steps in accuracy

Basic → Standard → Advanced → Premium

8.5 meter

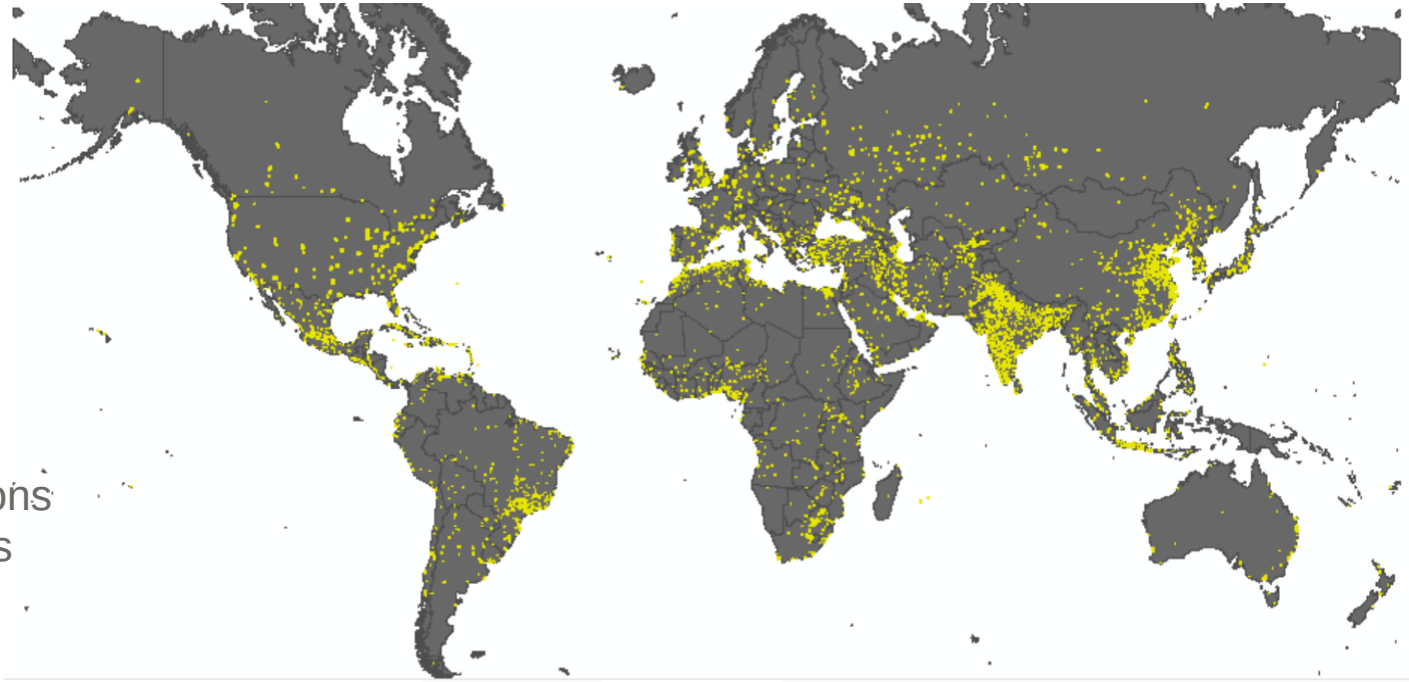
5 meter

3-5 meter

1-2 meter

Metro at a glance

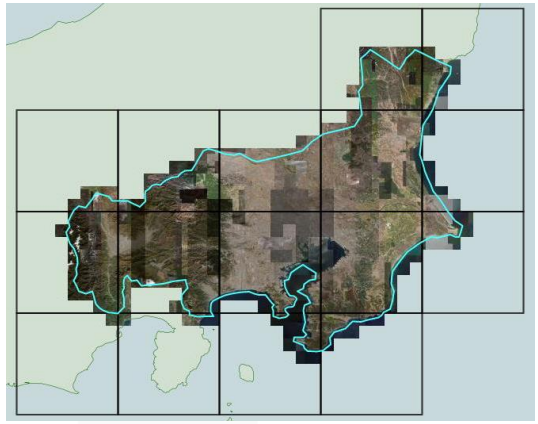
- Produced to a defined specification
- Available "off the shelf" for defined areas
  - 5,000+ metro and high-interest AOIs
- Produced annually with new image collections
  - 2016-2021 build versions for many areas enables change monitoring
- Delivered with seam-line files and source image metadata (image date, ONA)
- Accessible offline (S3, FTP, hard drive), streaming (API) and via SecureWatch

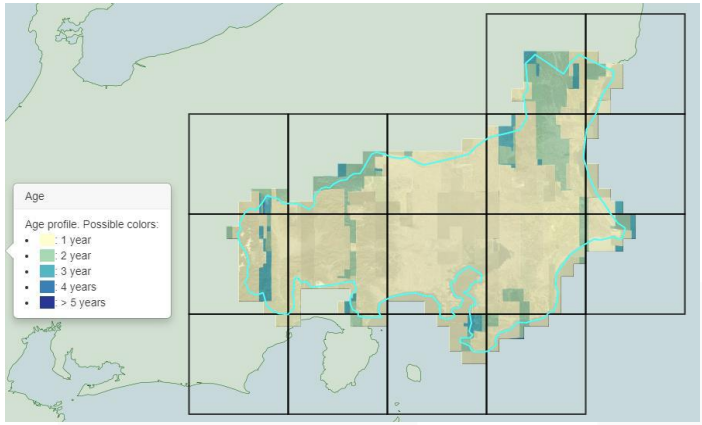


Spec	2020 Metrics
Coverage	Over 5,000 areas produced
GSD	Over 3,400 areas with 30cm/30cm HD
Currency	Over 99% of coverage <12 months
Cloud Cover	Over 98% of coverage cloud-free

Dynamic at a glance

- Available for any area of interest globally
- Produced at the time of order (or as scheduled) per requested mosaic parameters
  - Image currency: defined oldest/newest collection dates or best available
  - Product GSD: 15cm HD, 30cm, 30cm HD, 50cm, or resampled up to 15 meters
  - Accuracy: 5m CE90 or 10m CE90
  - Spectral Bands: 3-band RGB or 4-band BGRN
- Delivered with seamline files and source image metadata (image date, ONA)
- Accessible offline only (S3, FTP, or hard drive)
- Delivery within weeks of order (up to 10M km2)



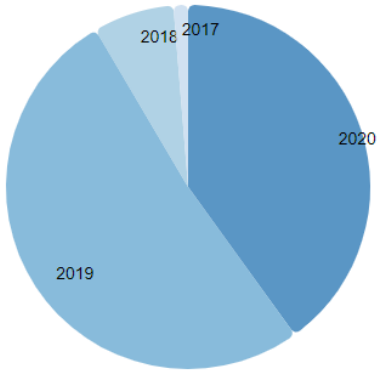


- 16 total partitions (0 passed, 16 unpassed)
- 0 layers
- 135 strips
- 0 strips embedded in 0 layers
- Area (km^2)
  - AOI: 26,948.4
  - Imagery coverage: 32,995.8
  - Imagery coverage within AOI: 26,948.4

Areas are an estimate. Profiles are calculated using simplified geometries of the current solution.

Age Profile

Year	Area (km^2)	Percentage
2020	13,208.4	40.0%
2019	16,989.1	51.5%
2018	2,370.6	7.2%
2017	427.9	1.3%
Total	**32,995.9**	**100.0%**



Imagery basemaps offer a range of coverage options

	Vivid Basic	Vivid Standard	Metro 2.0	Vivid Advanced *Coming 2022*	Vivid Premium *Coming 2022*
Coverage	Global landmass	Global landmass	6,000 metro areas	Populated areas, other areas of interest	Major cities, other areas of interest
Product Type	Orthomosaic	Orthomosaic	Orthomosaic	Orthomosaic	Orthomosaic
GSD	50cm	30cm HD/50cm	30cm HD/50cm	30cm HD	15cm HD
Image Bands	3-band RGB	3-band RGB 4-band BGRN	3-band RGB	3-band RGB	3-band RGB
Accuracy	8.5m CE90	5m CE90	4m CE90/10m CE90	5m CE90	2m CE90
Image Currency	<12 months (40%) <36 months (75%)	<12 months (40%) <36 months (75%)	<12 months (75%)	<12 months (75%)	<12 months (90%)
Cloud Cover	<5% globally	<2% globally	<5% (cloud-free most areas)	<2% (cloud-free most areas)	<1% (cloud-free most areas)
Off Nadir Angle	<30 degrees	<30 degrees	<30 degrees	<30 degrees	<20 degrees
Sun Elevation	>15 degrees	>15 degrees	>30 degrees	>30 degrees	>30 degrees
Proj, Datum	Geographic, WGS84	Geographic, WGS84	UTM, WGS84	Geographic, WGS84	Geographic, WGS84
Format	co-GeoTIFF w/jpeg	co-GeoTIFF w/jpeg	GeoTIFF	co-GeoTIFF w/jpeg	co-GeoTIFF w/jpeg

MAXAR.COM