



An Introduction to Satellite Imagery

The majority of people were first exposed to freely available satellite imagery in 2006 when Google released its pioneering application, Google Earth. Since then, many of us have used free satellite imagery sources in our day-to-day lives, whether it's to plan a journey, explore a new area or to find valuable insights for work purposes.

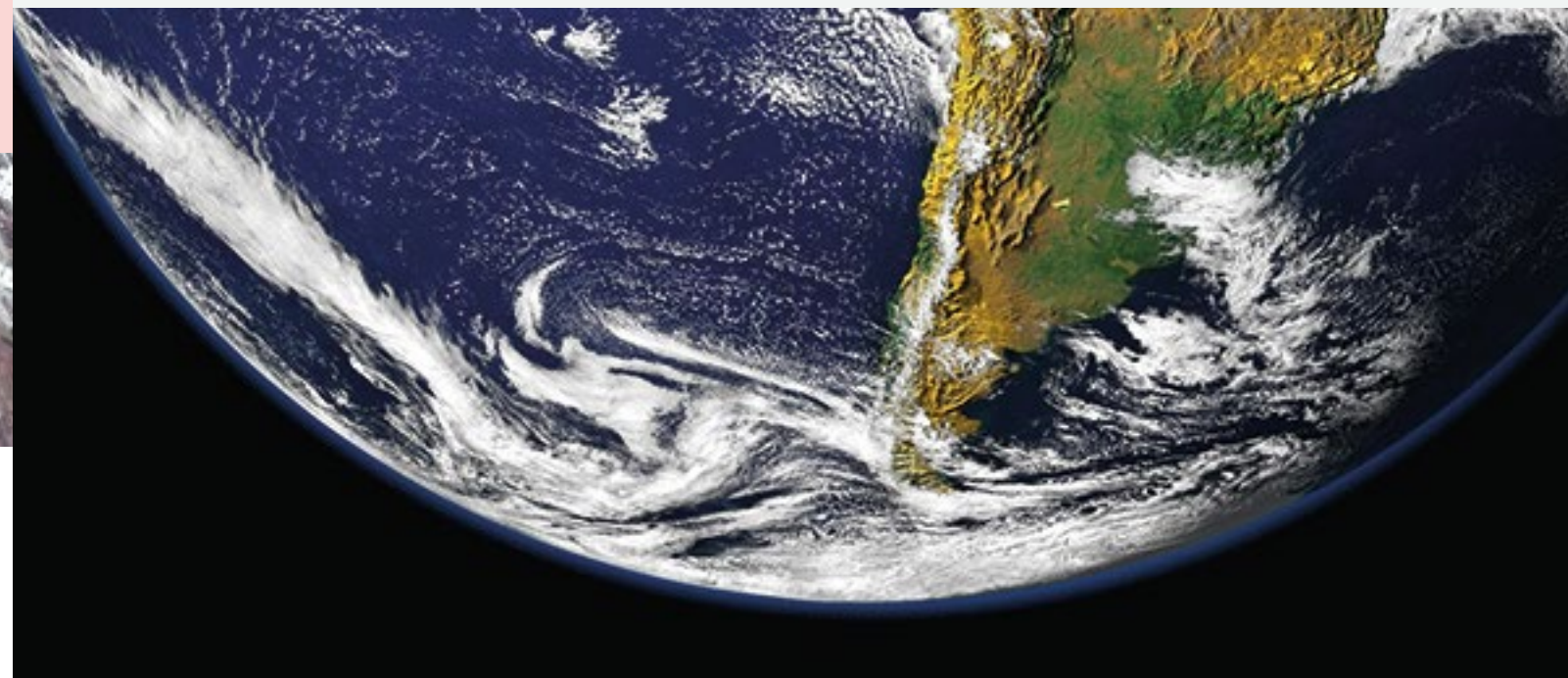


While this information is easily accessible, there is one major issue; free satellite imagery can be anything from 6 months to **7 years out of date**. Therefore, using this data source to inform business decisions is not reliable.



Typical Business Uses:

- Site managers to monitor construction sites
- Journalists to research or support news stories
- Transport providers to plan infrastructure projects
- House builders to scout new development opportunities
- Regional authorities in town planning and urban management



Common Issues in Buying Satellite Imagery

Order restrictions



Buyers are often unable to request imagery of a certain size, since the dimensions of the images on offer is dictated by the reseller. Typically, the minimum order size represents 25-100km² on the ground, meaning buyers are likely to end up paying for a much larger image than they require. This has rendered some business use cases impossible since the high cost for surplus image data is hard to justify.

Cost



The average price of an image varies from \$15 to over \$50 per km². This, combined with the minimum order size requirement could result in a very expensive image. If you required imagery of an area the size of a football pitch, you could typically expect to pay thousands of dollars, for a much larger image.

Fragmented supply chain



Since satellite imagery is acquired by multiple satellite operators, you would have to contact various different resellers and shop around to find the image you need, at the specific time and resolution you require. This fragmented supply chain makes it more expensive and time consuming for businesses to obtain the specific image data they require. In addition, having little idea of upfront cost makes it very difficult for businesses to budget for this type of data.

Existing satellite resellers have not met the need of many business applications since they lack the critical combination of accessibility, timeliness, quality and affordability. This can be overcome by compiling and integrating disparate, cross-correlated satellite data into one rich feed.

The solution



Bird.i aims to provide a best-case scenario. High-resolution imagery from multiple satellites is fed into one easy-to-use platform, so users can search an area of interest for the most-up-to-date satellite imagery available and pay only for the area they are interested in, making it a highly practical and affordable solution for business users.

Sign up for your FREE 10 day trial

How does it all work?

How we acquire imagery

A number of companies operate Earth Observation (EO) satellites in space, providing accurate and insightful imagery of our planet.

Although government bodies have been exploiting this EO satellite data for decades, it's not until very recently that private and commercial organisations have been able to access it too.



Those who have been doing so, however, are generally very well-funded with skilled technical support. Since these images are acquired with scientific or governmental uses in mind, end users generally hold a high level of technical expertise to process and manage this data for business purposes.

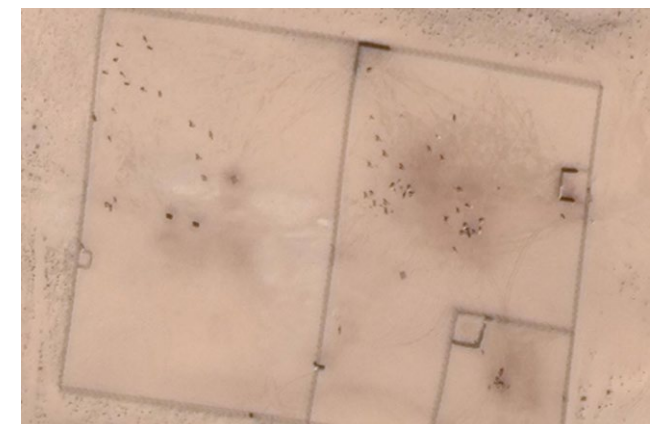
Given that the most valuable imagery for businesses is that which is high quality and up to date, the two most important elements in imagery acquisition are the **resolution** and **revisit rate**.

Resolution

The resolution concerns the level of detail an image holds. For example, in an image with a one-metre resolution means that adjacent pixels' positioning represents 1 metre apart on the ground.

Camels from space

(1.5m vs 30cm resolution)



Images © 2018 Planet Labs, Digital Globe, Inc.

Revisit Rate

The revisit rate is the time it takes between images of the same location to be acquired.

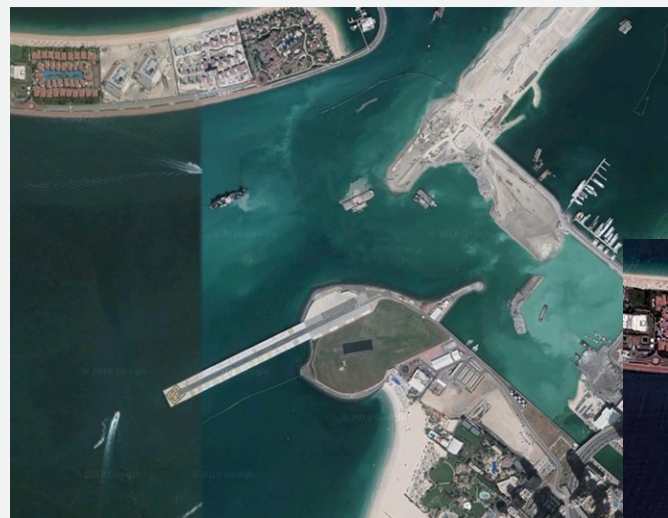
When you consider that current commercial EO satellite operators have the combined capacity to map the world more than once a day, it is remarkable that 9 out of 10 businesses still use Google Maps to make important decisions.

By providing imagery to our customers from multiple suppliers, Bird.i is in a position to provide users with the perfect blend of resolution and revisit rate, and in an affordable manner for your specific business application.

How businesses are using Bird.i

Businesses across multiple sectors are using commercial satellite imagery as a data source to provide valuable insight in their day-to-day activities, particularly when it's important that the information is up-to-date. A key use case is for monitoring changes in urban landscapes.

The example below shows the emergence of a new construction site, Dubai Harbour. The first image is taken from Google Earth, and the second using imagery from the Bird.i portal.



Source: Google Earth

Source: Bird.i Portal



Acquisition Date: 15 Jun 2018 07:05 UTC - Copyright © Birdi Ltd. - Image © 2018 DigitalGlobe, Inc.

You may also wish to see how a specific area of interest has evolved over time. Our time series tool allows you to do this at the click of a button. The below shows the progress of a construction site from March through to December.



Copyright DigitalGlobe, Inc 2018

Could your business benefit from valuable insights?

[REQUEST FREE TRIAL](#)

Our partners

AIRBUS


DigitalGlobe

planet.

Combined, our technology partners provide a wealth of rich, up-to-date satellite imagery, and Bird.i's goal is to make this data accessible to everyone. To find out more about our individual satellite imagery providers [click here](#).

About Bird.i

Bird.i collates high-resolution imagery from multiple satellites into one easy-to-use platform, so users can search an area of interest for the most-up-to-date satellite imagery available.



Sign up for your FREE 10 day trial