

The background features a vibrant blue gradient with fine, wavy horizontal lines. A diagonal band of lighter blue and green stretches from the top right towards the center. The bottom right corner is dominated by a large, flowing shape in shades of purple, pink, and orange, resembling a stylized wave or a modern architectural element.

# aws SUMMIT

TORONTO

JUNE 14 '23

S U S 2 0 0

# EARTHDAILY SUSTAINABILITY INITIATIVES ACCELERATED WITH AWS CLOUD

Vincent Lelandais  
VP Customer Solutions  
EarthDaily



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# Agenda

Business of Space

Use Case – Sustainable Oils

AWS Enablement

Sample data set for you to go play with



# AWS for Aerospace and Satellite



EarthDaily  
analytics



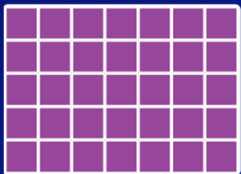
EarthDaily  
agro



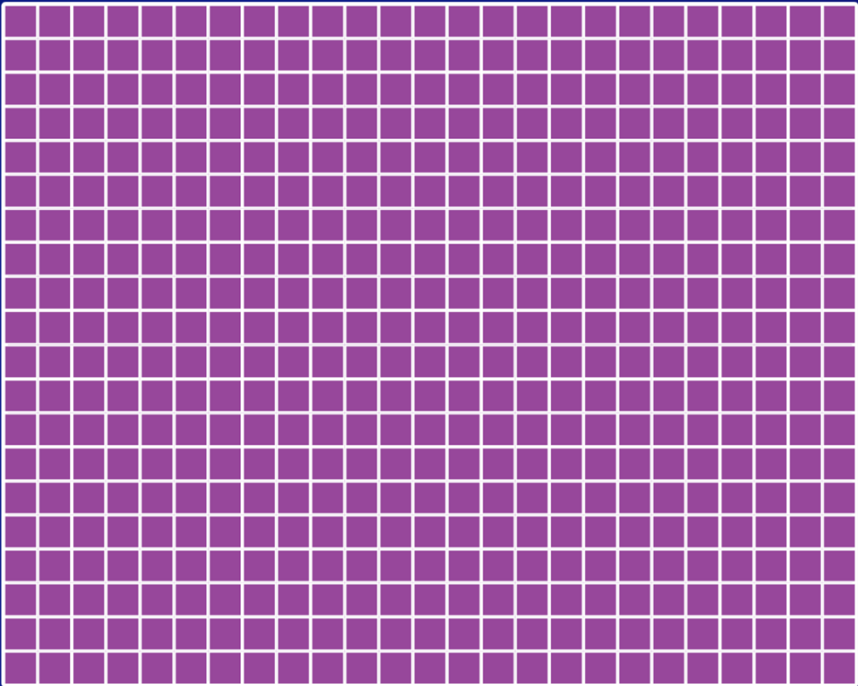
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# Data From Space

Projected 14x Growth  
From 2020 to 2030



2020



2030



1 Exabyte (1 Billion Gigabytes)



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Source: Northern Sky Research, [“Space traffic data volumes increase 14x over the next ten years,”](#) news release, December 6, 2021.[View in Article](#)

# 2022 Rocket Launches

- 186 rockets launched in 2022
- New historical record



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1. *Source: Bryce Tech, [2022 orbital launches year in review](#), February 3, 2023.*

2. *[View in Article](#)*

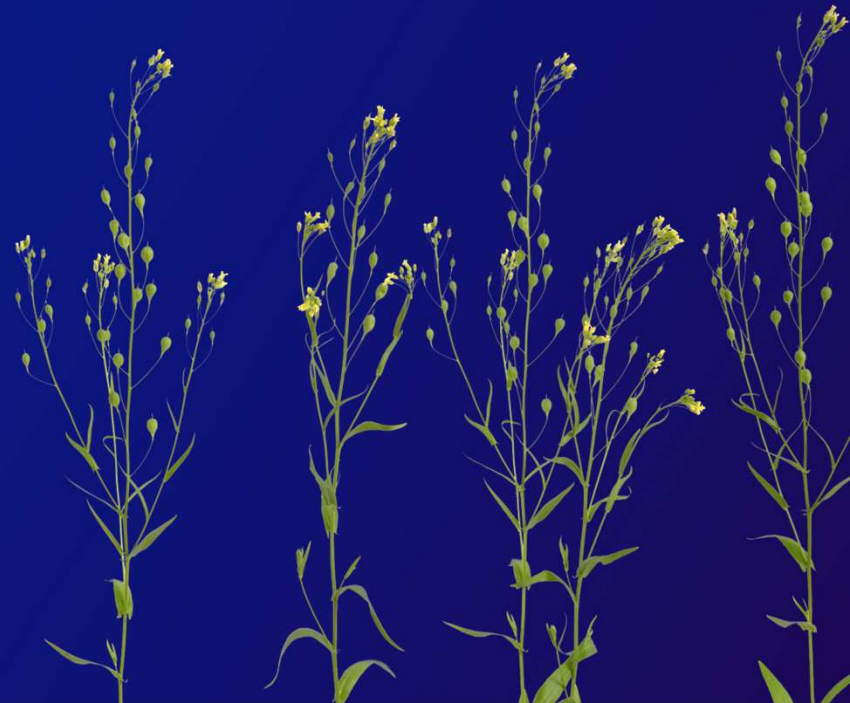
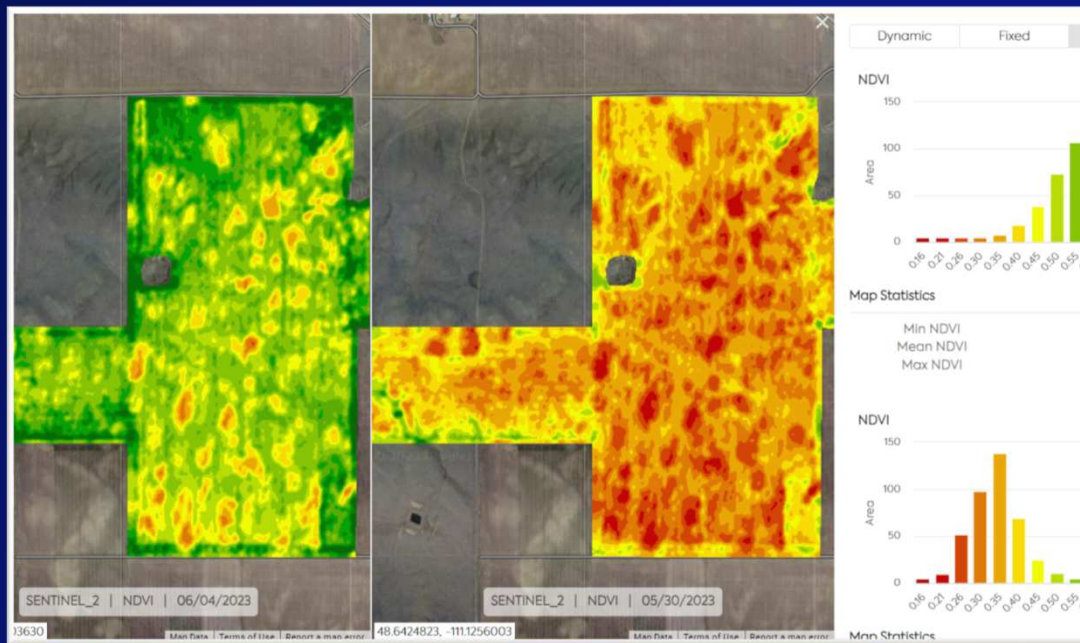


# Sustainable Oils Case Study



# Camelina Insights

Satellite data allows growers to react to changes





# Objectives



AGRONOMY

**Enable Production  
Capacity**



CARBON AND REGENERATIVE AG

**Ensure Sustainable  
Production**



SUPPLY CHAIN

**Produce Renewable  
Energy**

# Data Sources

**Weather Observations**  
**Soil Sampling**  
**Phenology Stages**  
**Change Detection**



**Scale Production**  
**Monitor Field Performance**  
**De-risk feedstock supply**  
**Predictive Analytics**

# Adding Functionality to AWS



**Satellite Data**  
**Public Data**



**Field Data**  
**Operation Records**  
**Crop Pictures**  
**Sample Analytics**



**Historical Weather Data**  
**Production Stats**



**Ag Model**  
**Predictive Analytics**

**NATIVE AWS FUNCTIONALITY**



**Security  
& Identity**



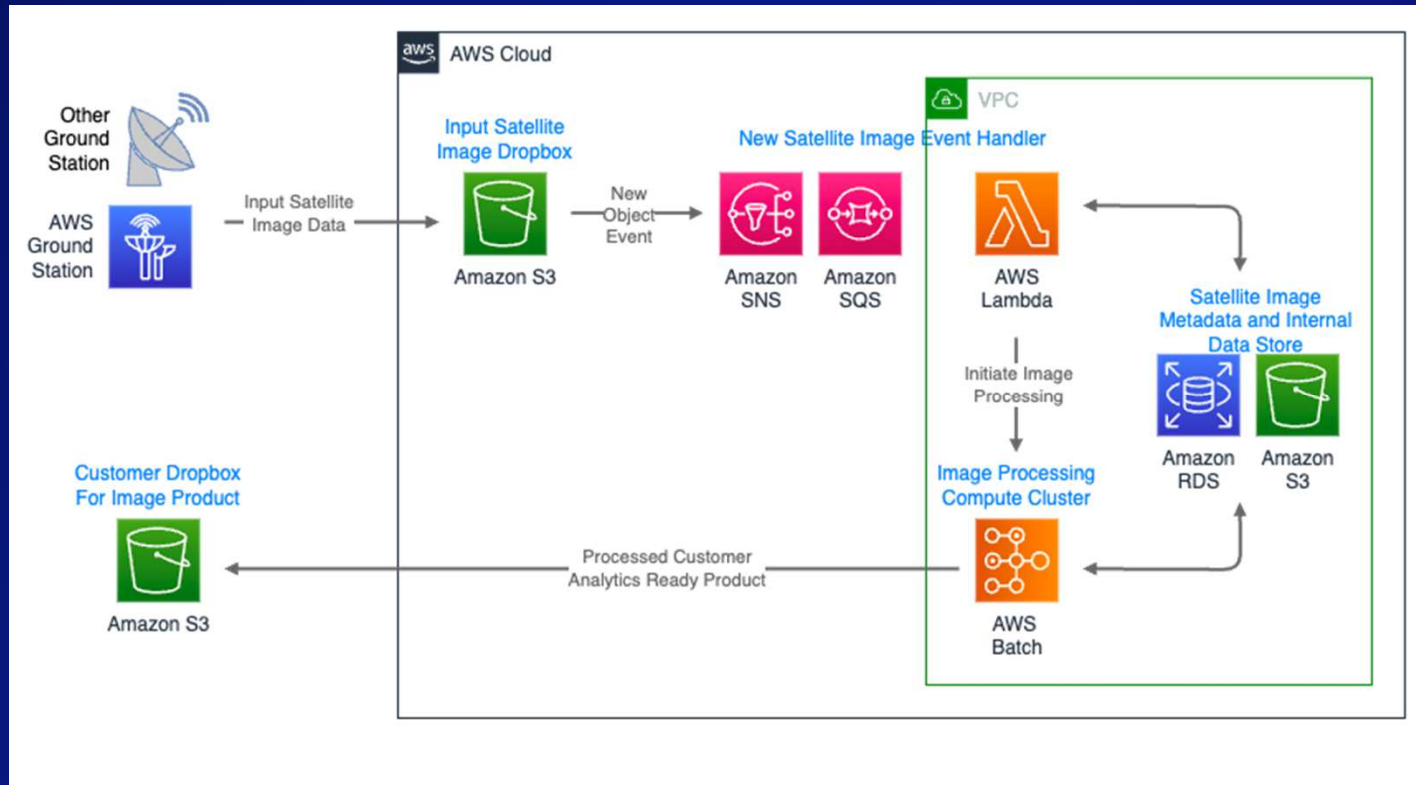
**Storage**



**Computation**



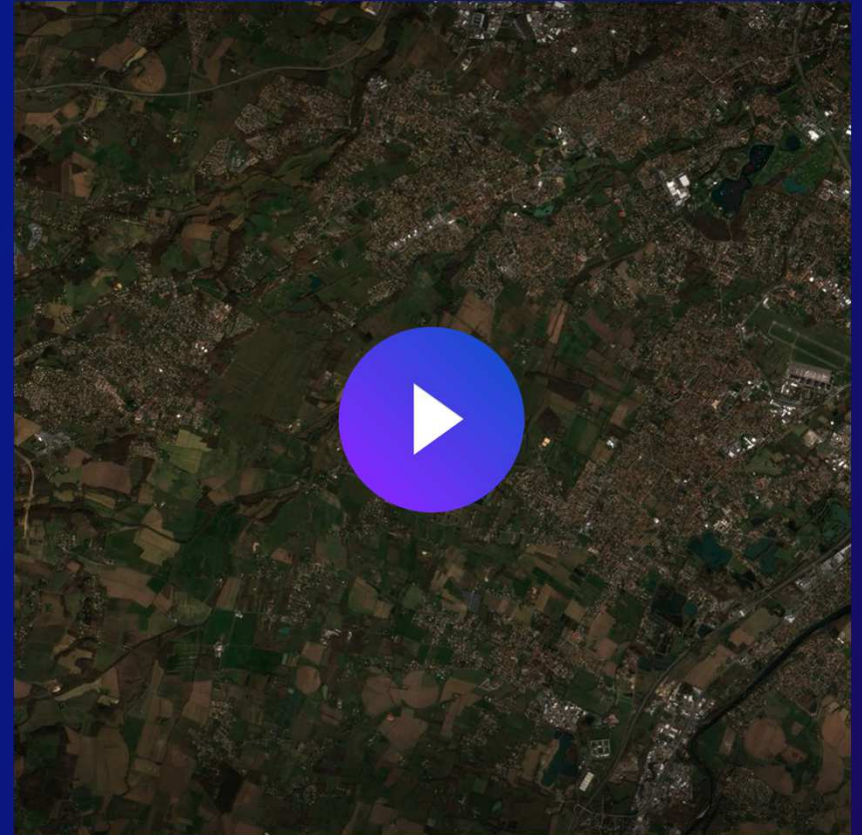
# High level architecture



# VEN $\mu$ S L2A Dataset

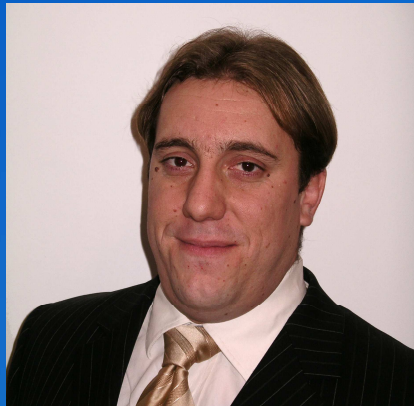
VEN $\mu$ S L2A Cloud-Optimized GeoTIFFs is now openly accessible on AWS

- Scientific Grade Quality
- Optimizes the data accessibility by converting it into a cloud-optimized image format (COG) and adds STAC metadata
- The processed data is then stored in an easily accessible Amazon Simple Storage Service (Amazon S3) bucket and made available through the AWS Open Data Sponsorship Program





# Thank you!



Vincent Lelandais

+1 612-718-4694

[vincent.lelandais@geosys.com](mailto:vincent.lelandais@geosys.com)



[linkedin.com/in/  
vincent-lelandais-58064448/](https://www.linkedin.com/in/vincent-lelandais-58064448/)



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