Geospatial on AWS

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AWS

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The world is entering an exciting and daring new space age

The space industry is rapidly growing and transforming

A new era of human spaceflight is dawning

Satellites launched into orbit will quintuple over the next decade

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The cloud is enabling space industry success

Driving down the cost of innovation

Only pay for what you use

Managing and transforming data on earth and in space

Low-latency access to global cloud infrastructure

Helping to manage and protect valuable space assets

Apply edge computing, artificial intelligence (AI), machine learning (ML) and Internet of Things

Providing modernized infrastructure and process

Focus on mission

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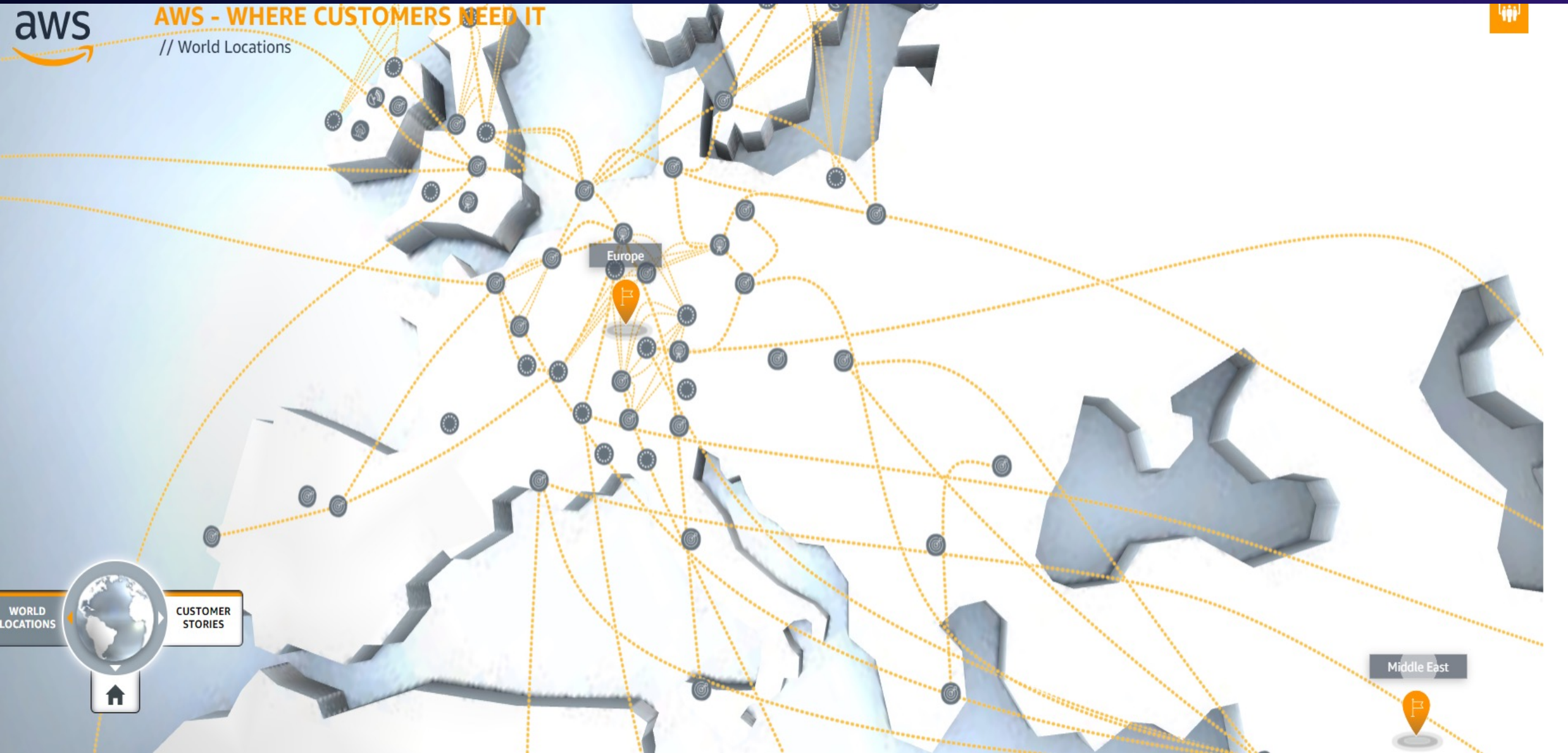
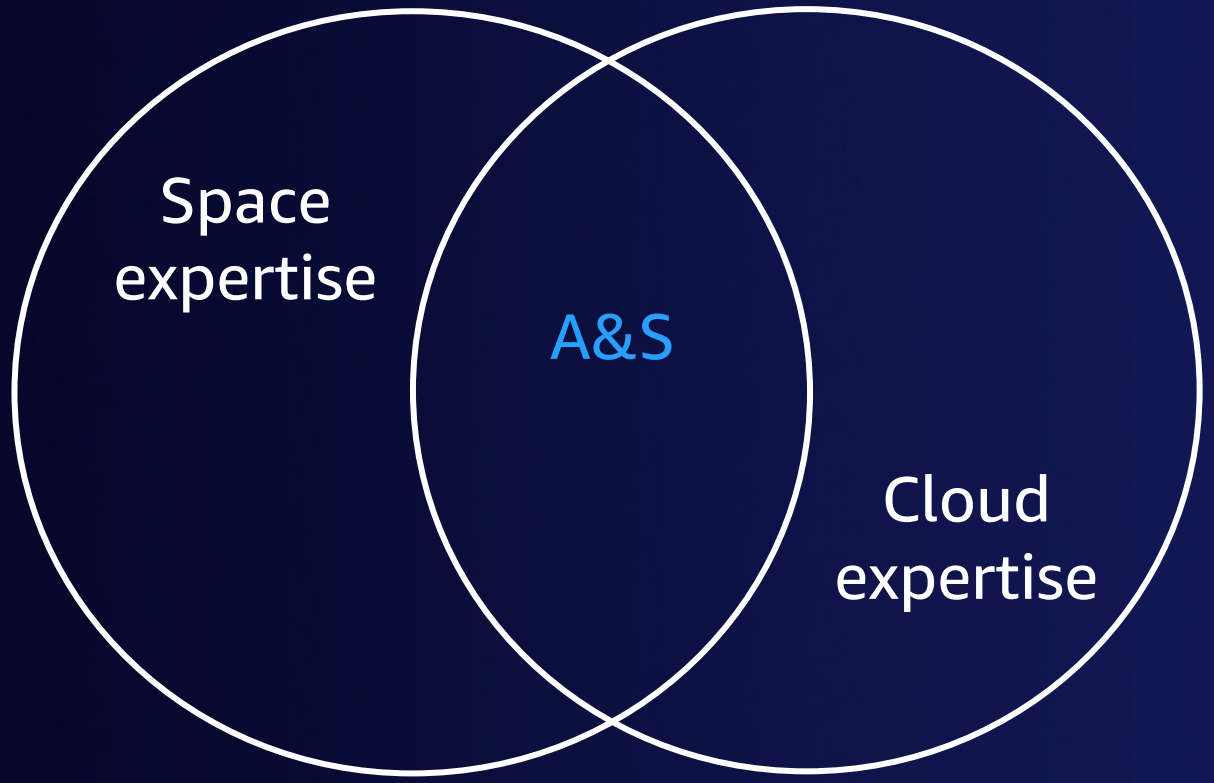
Global Infrastructure +450 POP



A&S focuses on the challenges and opportunities of space



A&S allows us to deepen our work with customers and partners around the world to:

- Reimagine space system architectures
- Transform space enterprises
- Launch new services that process space data on Earth and in orbit
- Provide cloud solutions to support public sector missions and companies advancing space around the world

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Mission Geospatial

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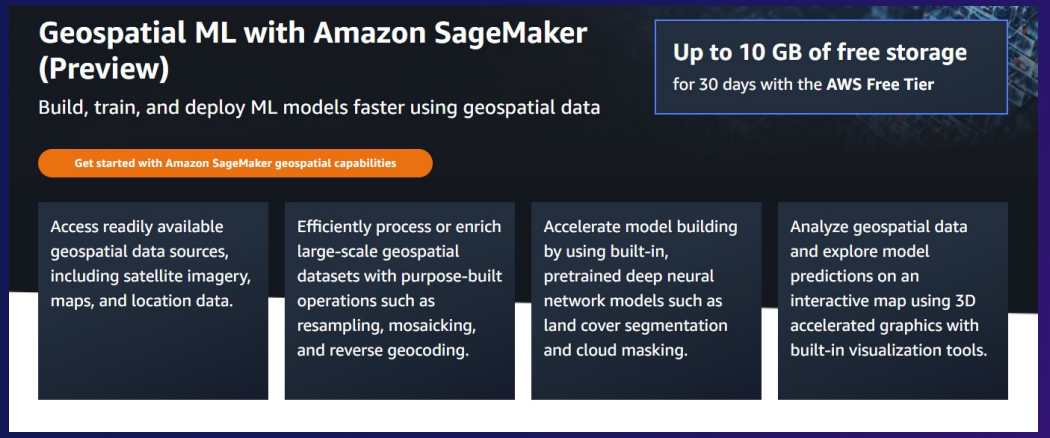
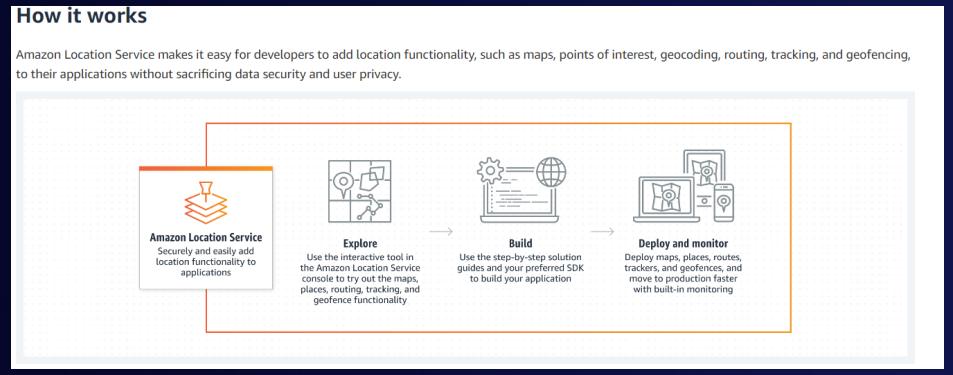
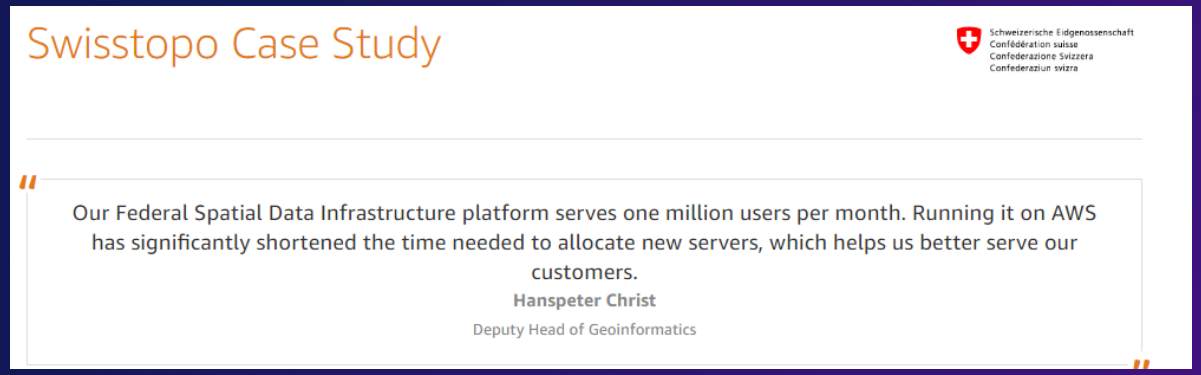
Geospatial on AWS Today







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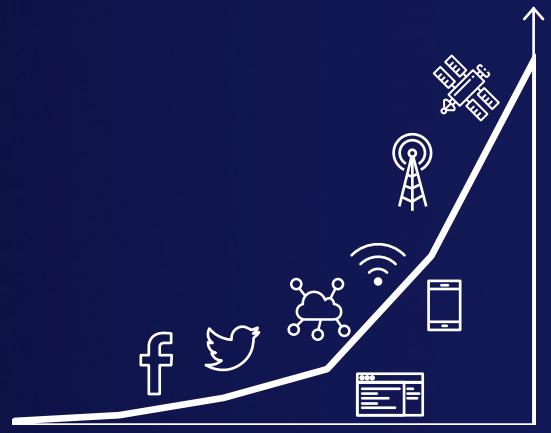
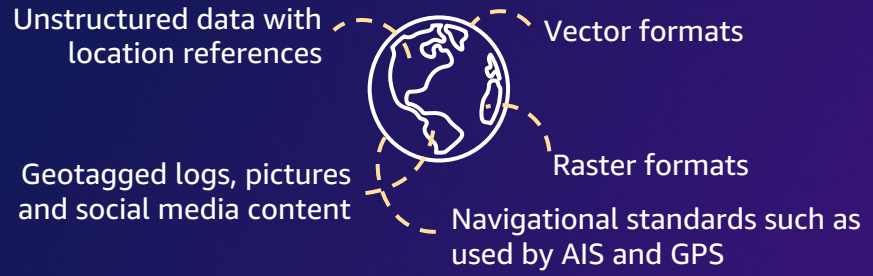
The new realities of geospatial data

Demand for faster decision-making



Explosion of data



Explosion of geospatial data standards

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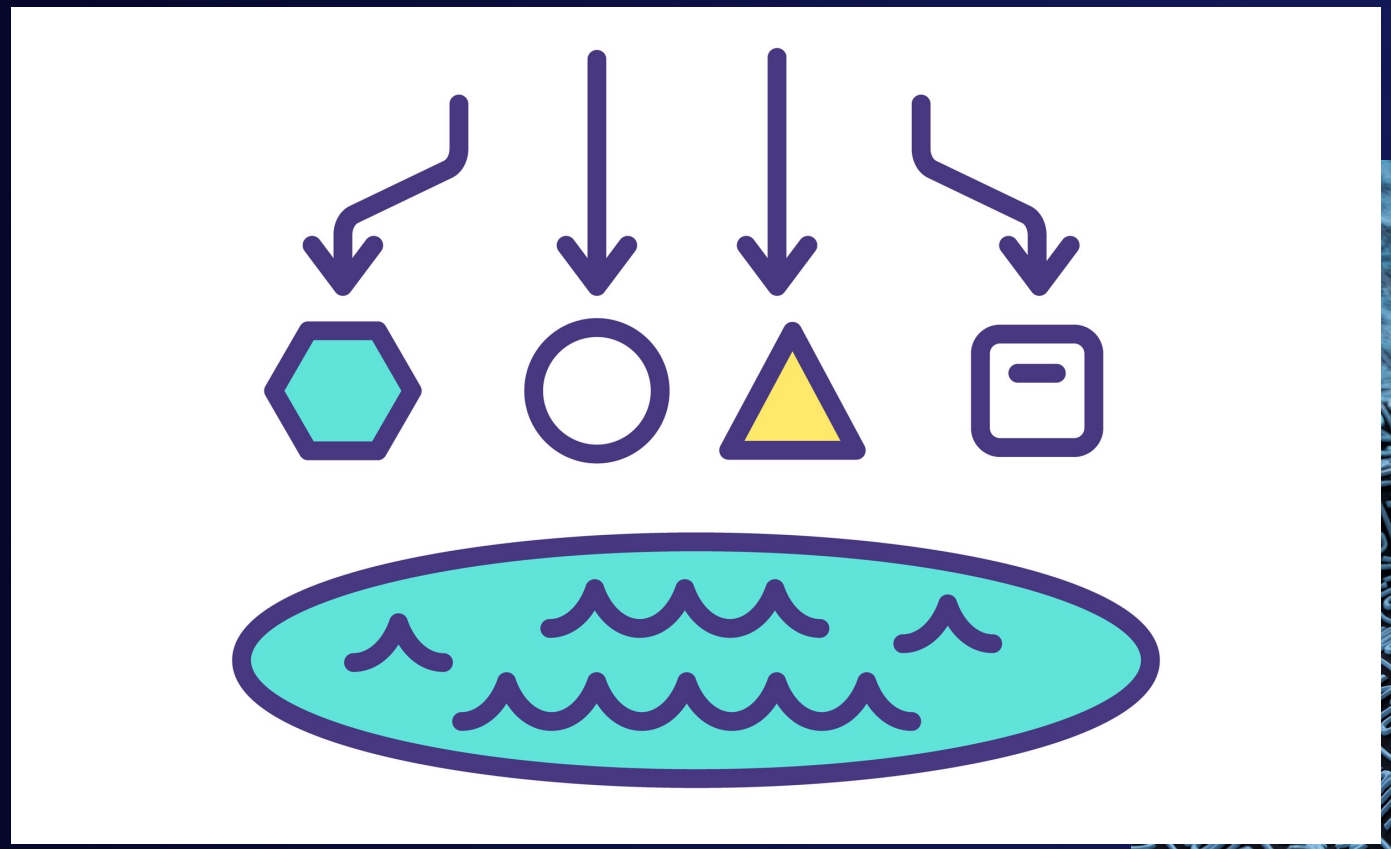
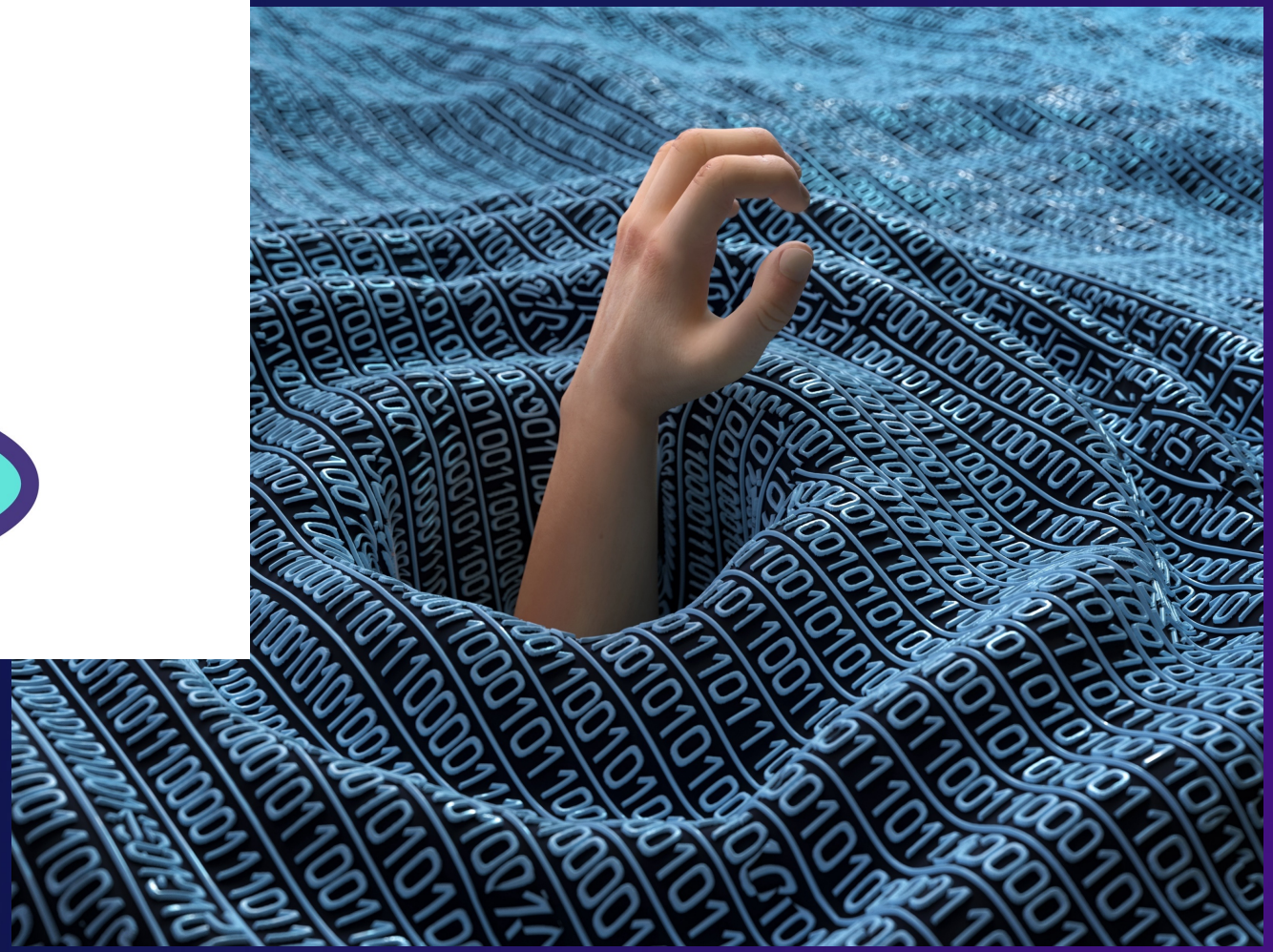
Data Swamps





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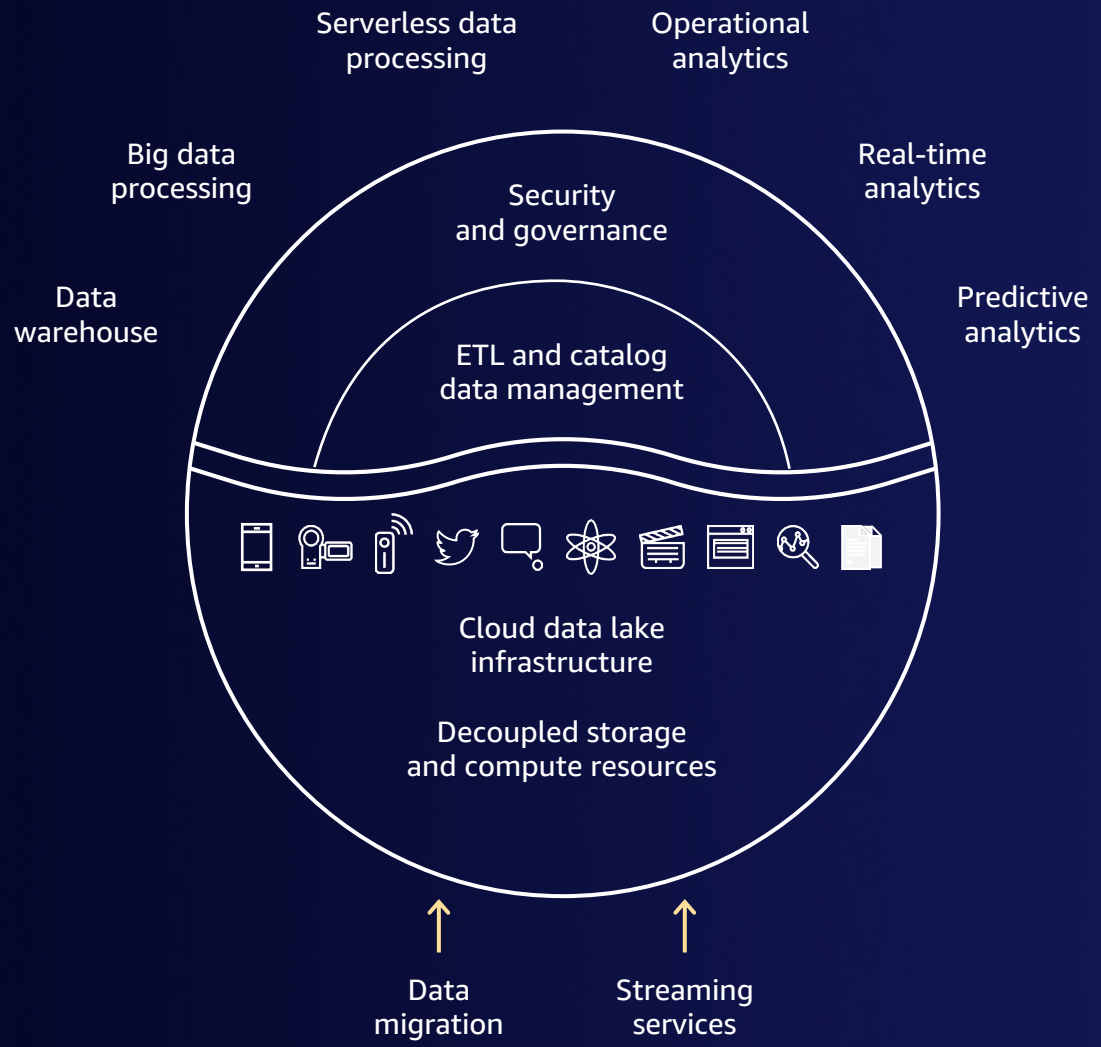
Supporting geospatial data with cloud data lakes



Customers want:

A single data store that is scalable and cost-effective

To use the standards-based data format of their choice

To analyze their data in a variety of ways

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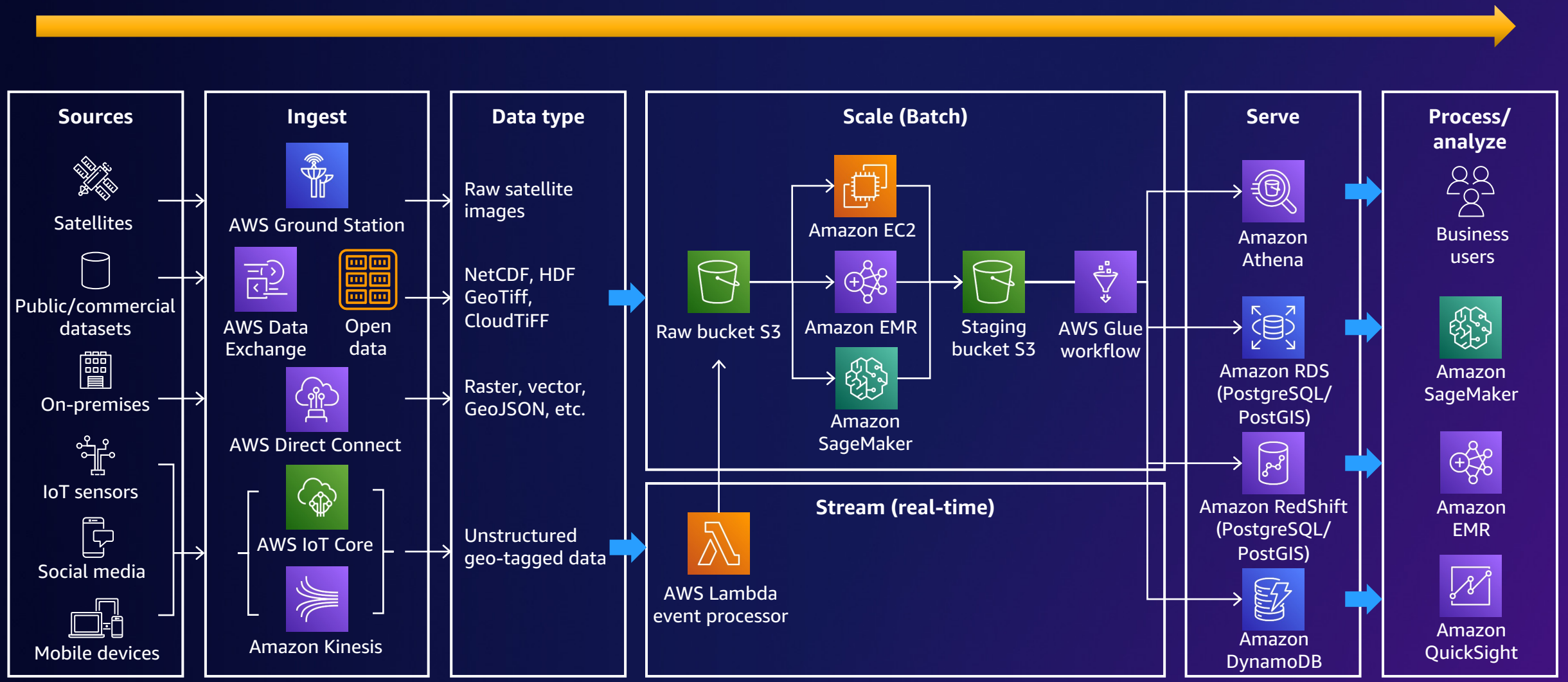
Data lifecycle continuum



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Incident Notification

25th August 2017

Incident Notification

4th September 2017

Statistics – September 2021

sentinelhub

Cloud API

170K
registered users

500M
processed requests

50+ PB
of satellite imagery

700 TB
added every month

4 Sentinel missions

7 Landsat missions, MODIS

Envisat, Airbus, Maxar, Planet

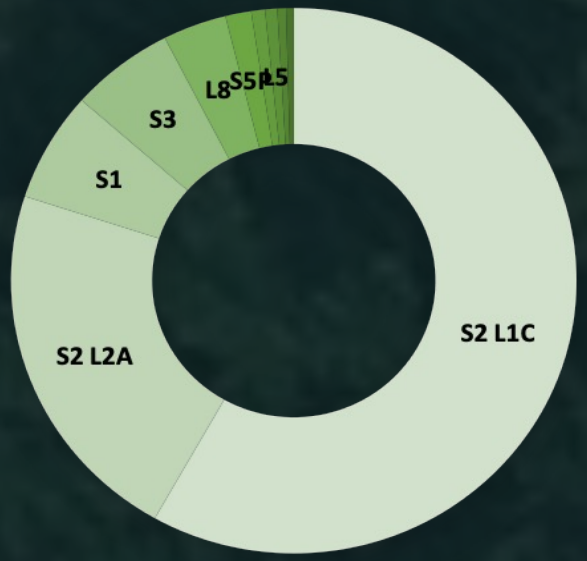
Copernicus services

EO Browser

60K
monthly visitors

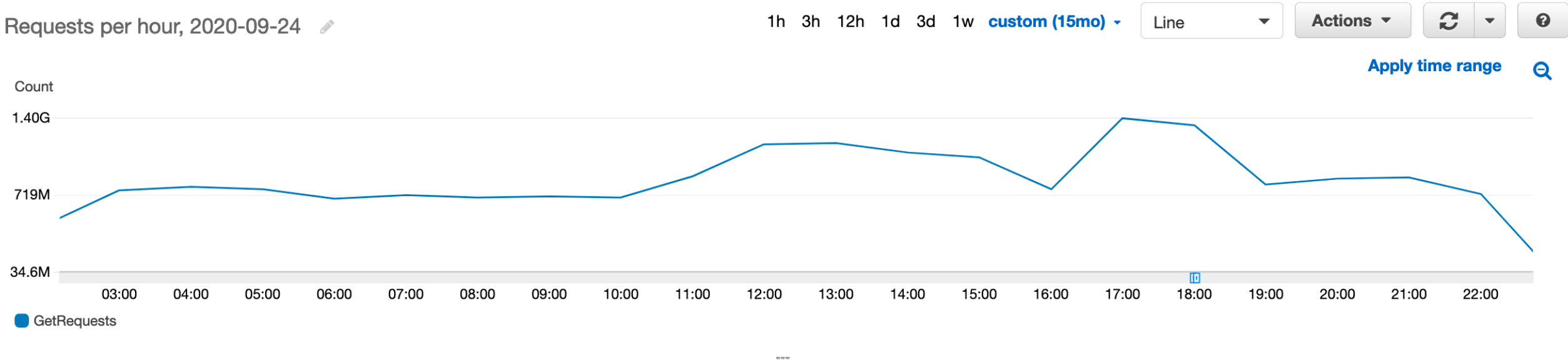
60M
processed requests

Open-source and free to use



Visitors from 200 countries

400 000 requests per second



All metrics | Graphed metrics (1) | Graph options | Source

Math expression | Dynamic labels | Statistic: Sum | Period: 1 Hour | Remove all

Label	Details	Statistic	Period	Y Axis	Actions
GetRequests	S3 • GetRequests • BucketName: sentinel-s2-l1c • FilterId: EntireBucket	Sum	1 Hour		

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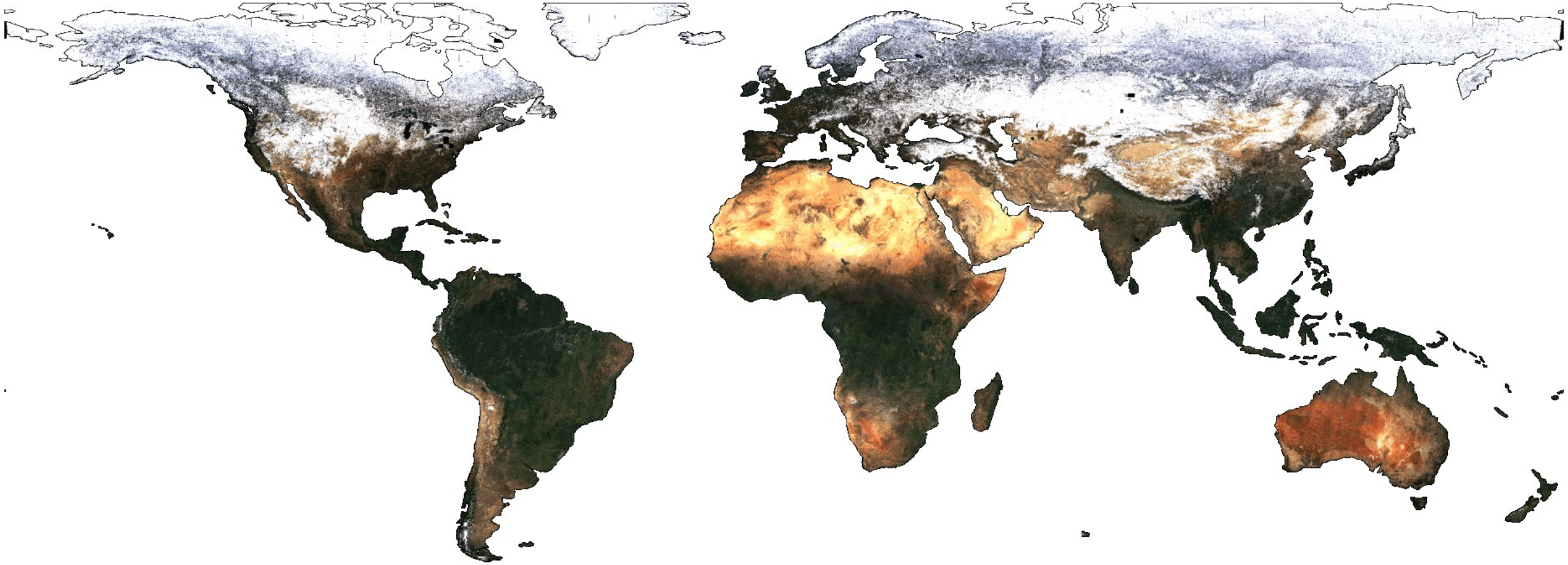

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AWS at the Edge

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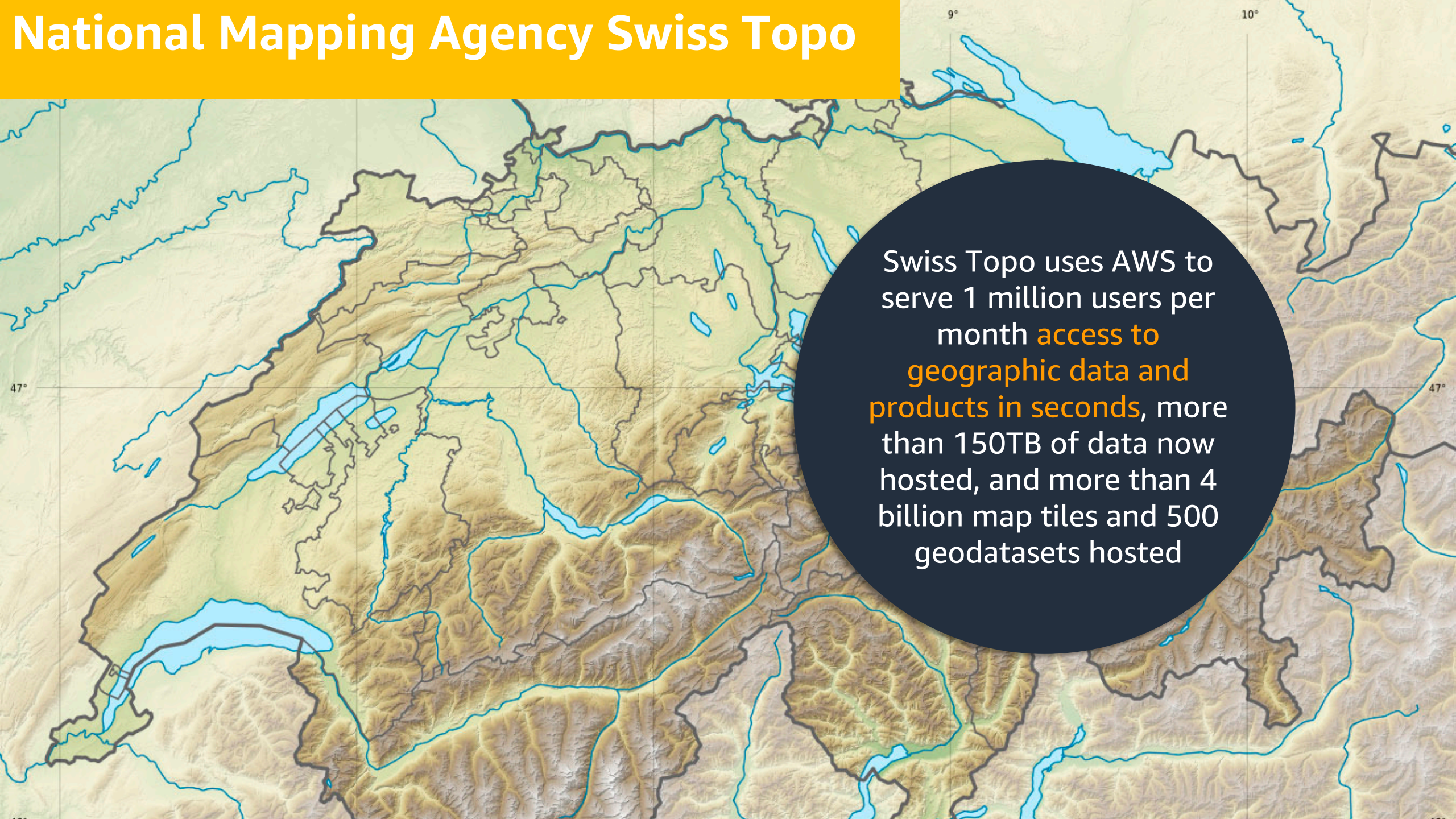
Using space to bring you closer to Earth

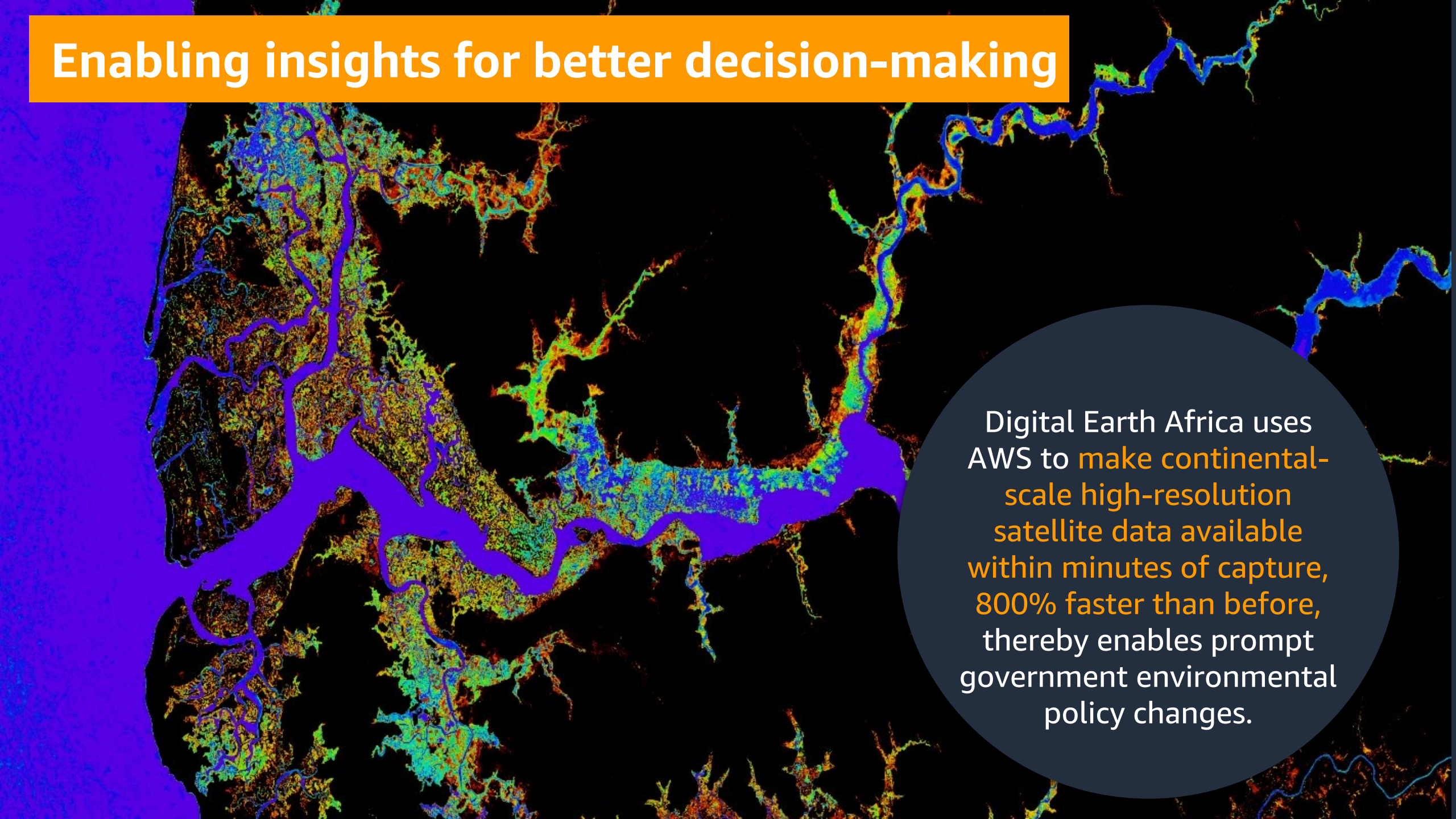
Capella Space uses AWS to provide customers with access to satellite data within minutes of capture, at a lower cost and far faster than traditional satellite data services, which can take up to 24 hours.

National Mapping Agency Swiss Topo



Swiss Topo uses AWS to serve 1 million users per month access to geographic data and products in seconds, more than 150TB of data now hosted, and more than 4 billion map tiles and 500 geodatasets hosted

Enabling insights for better decision-making



Digital Earth Africa uses AWS to make continental-scale high-resolution satellite data available within minutes of capture, 800% faster than before, thereby enables prompt government environmental policy changes.

Learn more

Big data on AWS:
https://aws.amazon.com/big-data/datalakes-and-analytics/

Spatial data with Amazon Redshift:
https://aws.amazon.com/blogs/aws/using-spatial-data-with-amazon-redshift/

Amazon RDS PostgreSQL and PostGIS support:
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Appendix.PostgreSQL.CommonDBATasks.PostGIS.html

Registry of Open Data on AWS:
https://aws.amazon.com/earth/

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Thank you!

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