

MONITOR HERITAGE FROM SPACE

Change Monitoring over outdoor archaeological sites –
a perspective from VHR Optical imagery

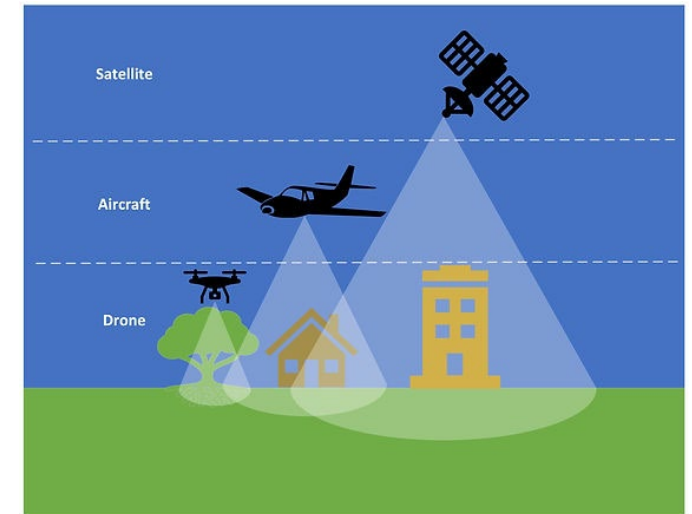


What could EO do for Cultural Heritage?

- Tangible and Immovable Cultural Heritage
 - Historical buildings
 - Monuments
 - Archaeological sites
- Climate Action for World Heritage
 - Climate change observatories
 - Monitoring, mitigation and adaptation practices.

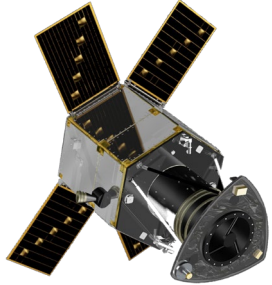
AREA MONITORING : AERIAL vs VHR EO vs HR EO

Data Source	RESOLUTION	EASE TO PLAN & OBTAIN DATA	COST	Urban & INFRA. MGMT	Environment & resources
Aerial	★★★★	★☆☆☆	€€€	Yes	Yes
GEOSAT	★★★	★★★	€	Yes	Yes
Sentinel-2	★☆☆☆	★★★★	Free	No	Yes



GEOSAT: WHO WE ARE

EUROPEAN PROVIDER OF VERY HIGH RESOLUTION IMAGERY AND VALUE-ADDED SERVICES



End to End control
of **2 Optical** satellites



165 customers
65 countries



1 of 2 European VHR
data providers.
Offices in PT and SP



24/7
operations



Rapid tasking
and delivery



12+ years
of experience



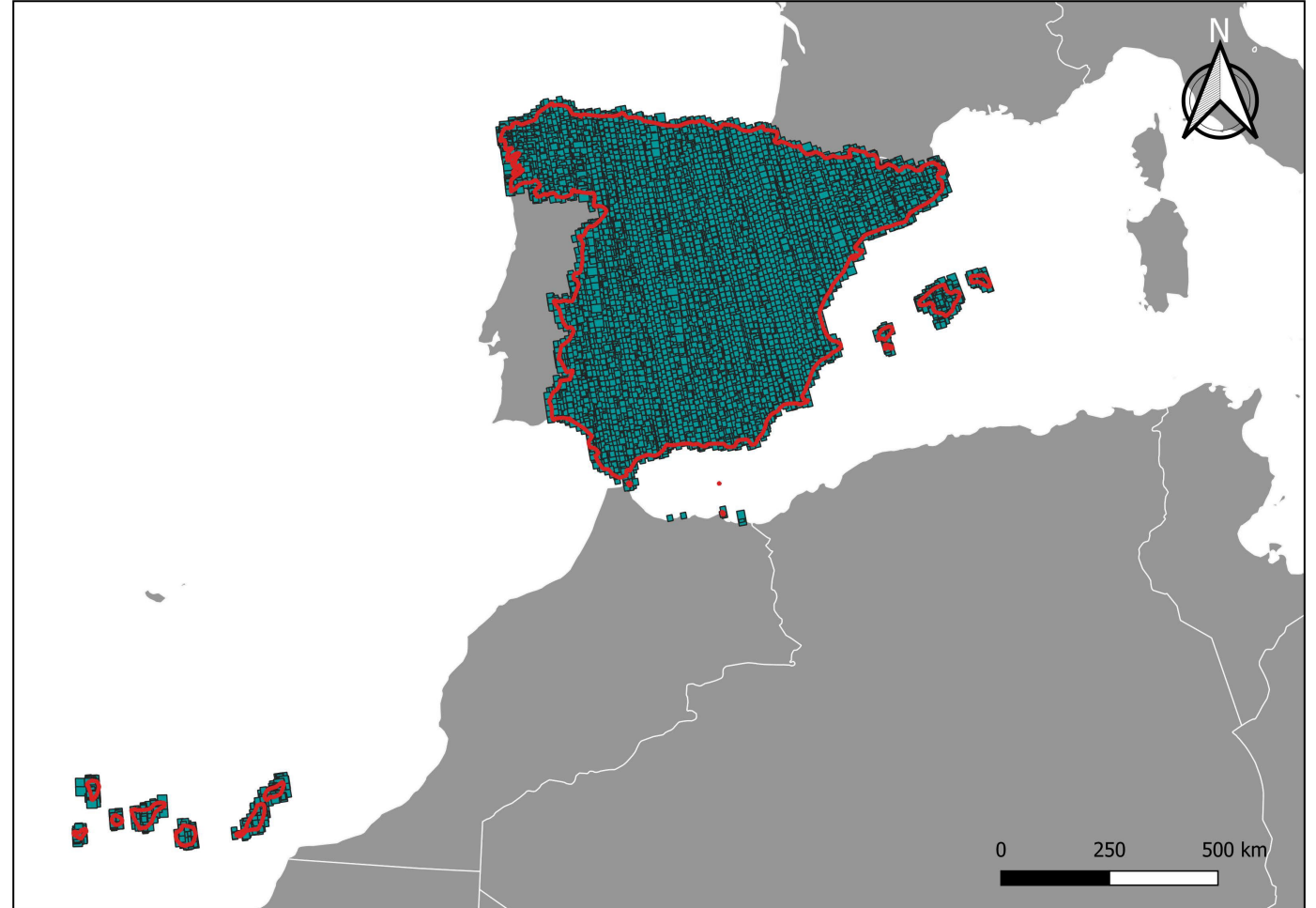
6bn sqkm
of imagery archive







SW development team
for custom services

LARGE REGION COVERAGES WITH VHR EO

- ▶ Satellite imagery. Complement to aerial coverages. More frequency
- ▶ Cost of launch of satellites has decreased → Lower cost of data
- ▶ AI and other technologies applicable
- ▶ Licensing is flexible
- ▶ Use cases on multiple applications

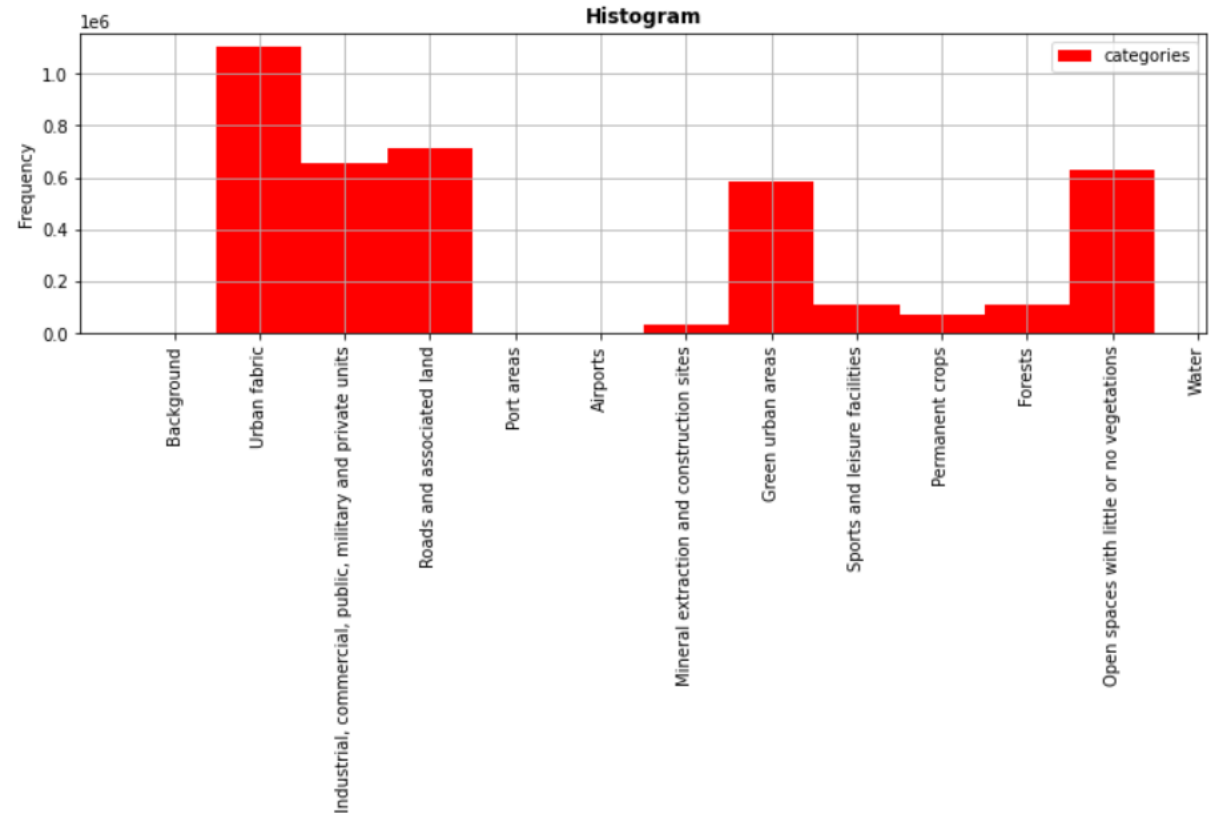
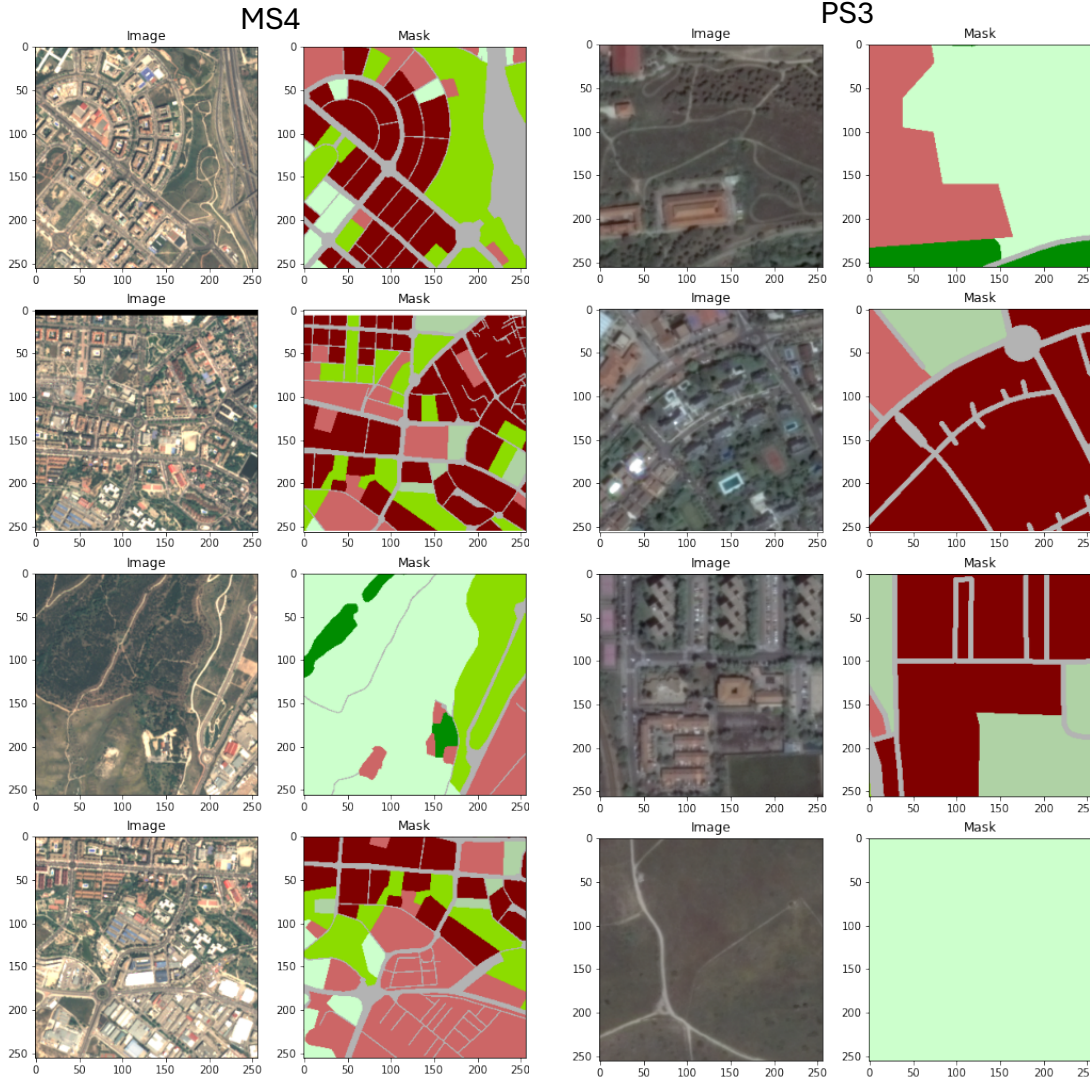


CHANGE DETECTION AND CLASSIFICATION

Color code	Analytics
	Build-up areas
	Under construction
	Sport areas
	New constructions



CHANGE MONITORING AND CLASSIFICATION

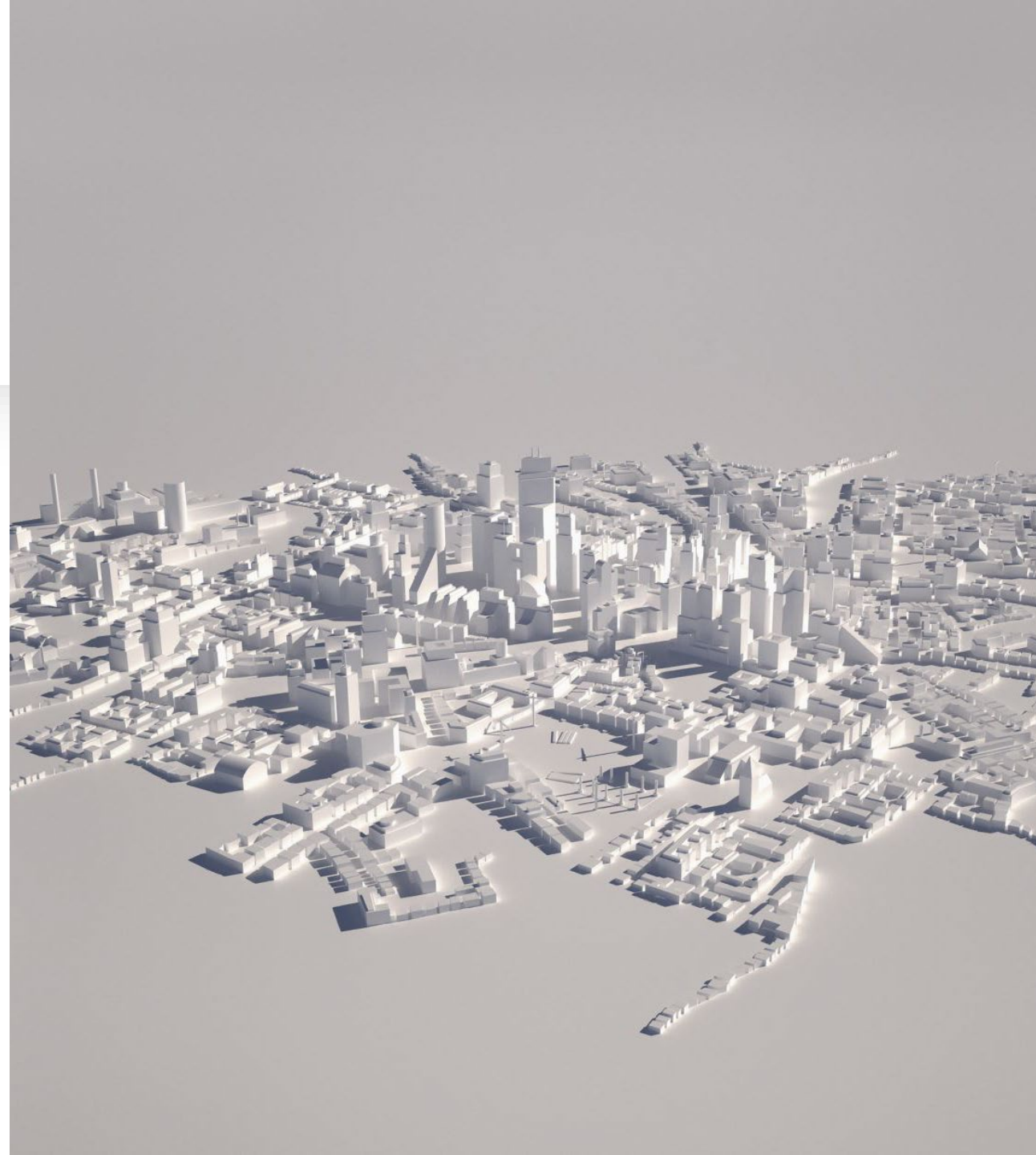


Histogram of categories for the MS4 dataset



MONITORING OF OUTDOOR ARCHAEOLOGICAL SITES

- GEOSAT 2 data is capable of performing frequent monitoring over scattered areas over large regions
- Model to automatically generate a regional LULC map with <1m resolution.
- Adapt current product to archaeological sites characteristics.
 - No extension restrictions
 - Own classification could be modeled



COLONIA CLUNIA SULPICIA (BURGOS, SPAIN)



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Thank you!

GEOSAT