Being Practical: How to Access and Process EUMETSAT and Copernicus Data

Enhancing safety at sea through the use of Earth Observation data

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EUMETSAT

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PROGRAMME OF THE EUROPEAN UNION

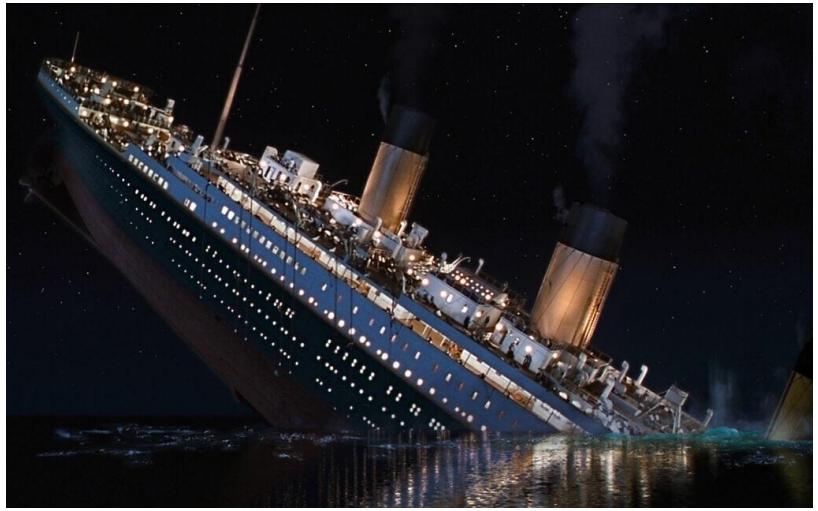
Copernicus Europe's eyes on Earth

Love story??

Could Jack have survived??

Spoiler Alert!!

This presentation is not about Jack, Rose or the Titanic



Accident at sea !!!

Images from Titanic (USA 1997) Director: James Cameron. Paramount Pictures

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Are our artisanal fishermen safe?

Retrieved from Fish Reef Project | Africa Reef Project

- Use small dug-out canoes
- Limited means of communication
- Little to no safety equipment

- Mainly rely on traditional knowledge to
  - Navigate
  - Locate fish
  - Detect the weather at sea

"*I have been fishing my whole life. My grandfather was a fisherman, my father was a fisherman. Based on experience we are able to tell the state of the ocean or the weather. I can tell whether the sea will be rough or calm by dipping my toe in the water in the early hours of the morning*" – Sekondi Fisherman, Ghana

Needs: To access accurate and timely information on ocean conditions prior to their fishing expeditions

Challenges: Accidents at sea result in loss of canoes, fishing gear and ultimately lives

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www.news.cn 新华网 NEWS www.xinhuanet.com XINHUANET

Editions

Wednesday, August 31, 2022

Fourteen killed, 15 injured in Guinea boat accident: gov't

Source: Xinhua | 2021-03-30 19:43:21 | Editor: huaxia

GHANALINX.COM › Ghana / 8 Missing After Fishing Boat Sinks In Elmina

8 Missing After Fishing Boat Sinks In Elmina

Posted by: admin in News in Ghana 0 501 Views

Eight members of a fishing crew are reported missing after their boat sunk within the Elmina-Cape Coast waters at dawn on Tuesday.

The eight were part of a twenty-member team travelling from Sekondi to Tema for maintenance of the fishing boat when violent waves tossed the vessel around and sunk it.

All twenty were knocked off the boat by the violent waves, but twelve were rescued subsequently.

The Ghana Navy has dispatched fast rescue boats to search for the missing eight fishermen.

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Joy Online www.myjoyonline.com.gh

Fisherman missing at Dixcove as canoe capsizes

Source: Daily Guide

Date: 12-07-2016 Time: 08:07:04:am

Man, 25 die in botched fishing expedition

IN NEWS / BY ADMIN / ON JULY 14, 2016 AT 10:05 AM /

The body of Philip Agya Twin, the 25-year-old missing fisherman at Dixcove in the Ahanta West District of the Western Region, has been found after he went missing on Sunday afternoon, following a botched fishing expedition.

The Ghanaian Times GHANA'S MOST AUTHORITATIVE NEWSPAPER

The body, which was in a decomposed state, had been deposited at the mortuary at the Dixcove Government Hospital awaiting post mortem examination.

Confirming the reports, the Safoahen of Dixcove, Agya Awortwe, told The Ghanaian Times that the body of Philip was found at about 3pm on Tuesday, after being washed ashore at a rocky area near the Castle at Dixcove, adding that there were bruises on some parts of the body, with the eyes chopped.

The need for an early warning mechanism

MESA
Monitoring for Environment and Security in Africa

GMES AND AFRICA

GMES AND AFRICA

MESA
2013-2017

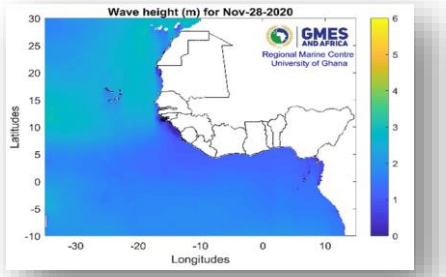
GMES & Africa Phase I
2017 -2020

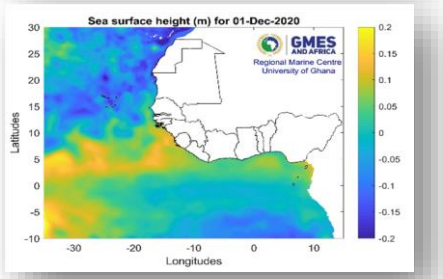
GMES & Africa Phase II
2022-2026

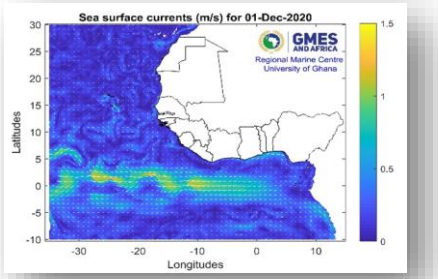
Ocean state early-warning services introduced under the MESA programme in 2014
- 14 coastal West African countries
- 12 ECOWAS
- 1 North Africa
- 1 Central Africa

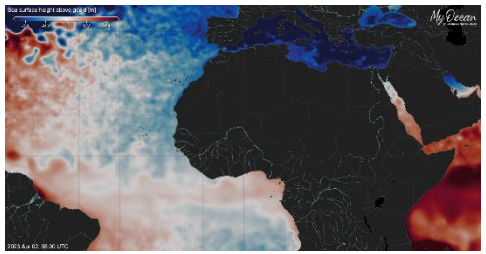
Service consolidated under GMES phase-I
- 12 coastal West African countries
- Sao tome and Principe – CICOS/AGEOS
- Mauritania – NARSS

Service extended under GMES phase-II
- 18 coastal countries
- 12 West Africa
- 6 North Africa









Target Users:

- Artisanal Fishers
- Semi-industrial and Industrial Fishing Fleet
- Navies and Coast Guards
- Disaster Management Organizations

Benefits for users :

- Informed decision-making for artisanal fishermen
- Protection of lives and property
- Long-term analysis of trends for academic and scientific community

Products used :

Copernicus Marine Service data and products

- Regional and Global ocean 1/12° physics analysis and forecast updated daily
- Global Ocean Wave analysis 0.083 °

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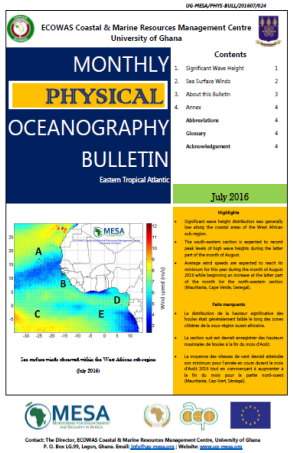
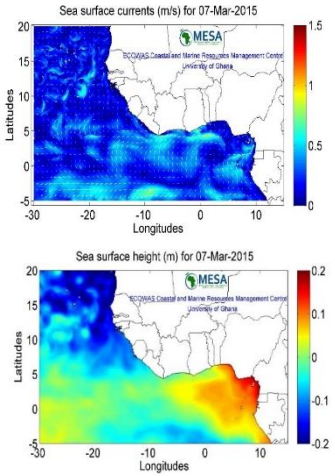
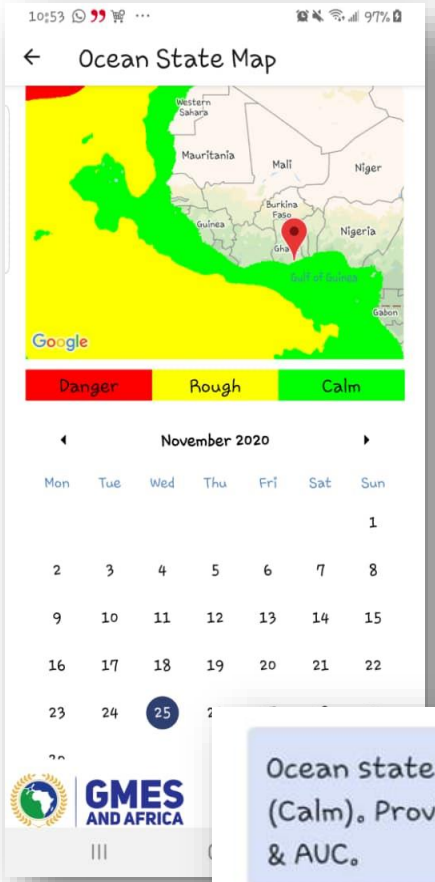
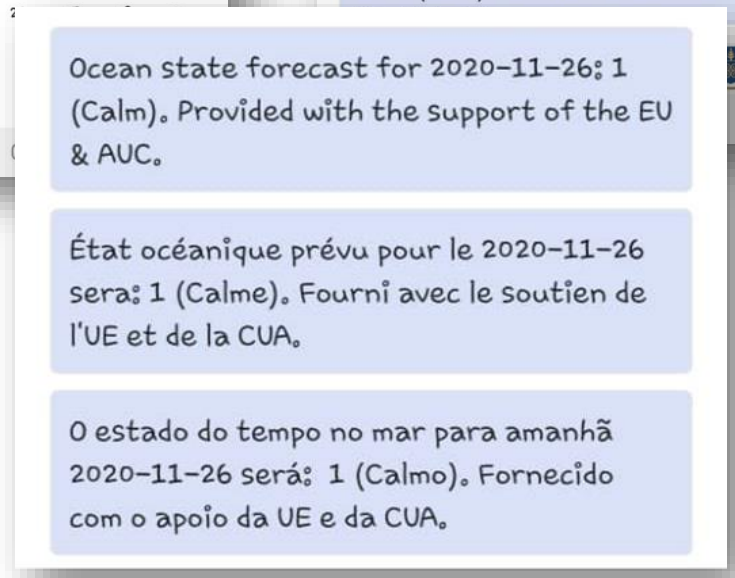
Safety at Sea Service Evolution







2 **USSD codes** developed to access 3-day ocean state forecast in Ghana **(*920*88#)** and Nigeria **(*347*87#)**, on any mobile phone.



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Europe's eyes on Earth

Annual regatta - Ghana

Outreach in coastal communities

Billboards to promote awareness

Durbar with local community leaders

Radio engagement

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User Feedback

Canoe and Fishing Gear Owners Ass of Gh (CaFGOAG) on Twitter

"In these times of increasing bad #weather days, @CanoeGear has stepped up education and sensitization on safety at sea.@GhanaMet provides daily #marine forecast. By just a dial,#fishers get #ocean state information by @GMESAfrica #IYAFA2022 #SafetyAtSea #GmesAndAfrica #MarCNoWA"

twitter.com

https://twitter.com/CanoeGear/status/1562321951347154944?t=c75fO1jrO-jddxHQOLe5-g&s=09

6:14 AM

1:46 PM 66%

Marine Forecast

Adom, Alice, Azumah, Bashiru, E...

4:26 PM

+233 24 690 9643 ~nkweigyah

I just received a sad news from Liberia of four fishers dying due to bad weather which resulted in an accident at sea,

Whilst we mourn the lost we are encouraged to keep up with the sensitization on safety at sea.

We can only be grateful to GMet, GMES and all the partners for the information provided to us.

We look forward to supports from partners to enhance the process

4:37 PM

In our situation where insurance is absent, we have embraced the ocean state information that we received, and making it part of our fisheries

4:39 PM

J. Etornam Avornyo Kassah

Thank you too . A lot of Ghanaians have come to appreciate the forecasts from GMet and GMES and we will share as given to us

3:13 PM

nkweigyah

Azumah

So sorry. There are plans with GMET to train other Meteo agencies in a west and North Africa who need help in that field. Additional efforts are being made for Liberia to get the USSD code as well an...

Is it possible to have voice messages as it is with the customer care call lines of the mobile networks

4:45 PM

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Improvements to the Ocean Alert Service

- Service extension from West Africa to North Africa
- Extension of USSD services to other countries
- Dial-in services with voice-over in local languages for USSD service
- Addition of rainfall information to ocean state early-warning

GHANA METEOROLOGICAL AGENCY

www.meteo.gov.gh / +233 302543252 / info@meteo.gov.gh/kiamo@meteo.gov.gh

COASTLINE & MARITIME FORECAST FOR GHANA

VALID AT 0000Z 24/04/2023

(VALID FROM COAST EXTENDING 200NM INTO SEA)

The state of the sea will be 1 (Calm)

WARNING: MAX WAVE CURRENT RANGE (0.75 – 0.89) m/s

PARAMETER	24 HOURS	48 HOURS
SURFACE WIND	SW 05KT MAX 20KT	SW 06KT MAX 20KT
VISIBILITY	(5 – 10) km	(5 – 10) km
SEA SURFACE TEMPERATURE	(25 – 30) °C	(25 – 30) °C
SIG WAVE HEIGHT	(1.0 – 1.4) m / (3.3 – 4.6) ft	(1.0 – 1.5) m / (3.3 – 4.9) ft
TIDAL WAVE	(0.26 – 1.57) m / (0.85 – 5.15) ft	(0.34 – 1.45) m / (1.12 – 4.76) ft
WAVE CURRENT	NE 0.60 m/s	NE 0.55 m/s

WEATHER: Pockets of rain showers with thundery activities are expected tonight at the start of the forecast, especially, on the western onshore. The day is expected to be partly cloudy, and this is expected to break out into isolated rains over the maritime region, notably the west coast, in the late evening getting into the night.

LEGEND

ISSUED AT 1730Z
DATE: 23/04/2023

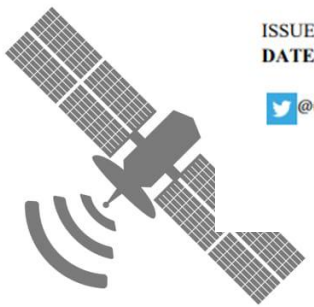
MARINE FORECAST OFFICE
(SIGNED)

PROVIDED WITH SUPPORT OF EU & AU

@GhanaMet

Ghana Meteorological Agency

GMES AND AFRICA



Canoe and Fishing Gear Owners Ass of Gh (C... @Canoe... · Feb 23

#SafetyAtSea: Marine Weather Forecasting Unit of @GhanaMet in collaboration with @CanoeGear engages #fishers to identify key challenges, and validate the marine weather forecast for 2022. 1st stop #Chorkor, #Tema and #Nungua, last Tuesday.

China || Nana Addo || Mahama #TV3NewDay

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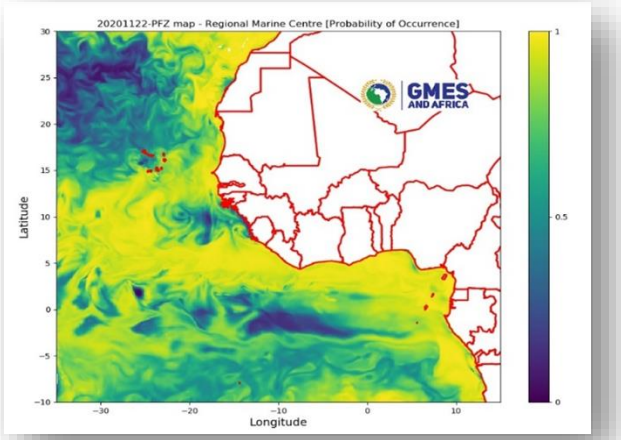
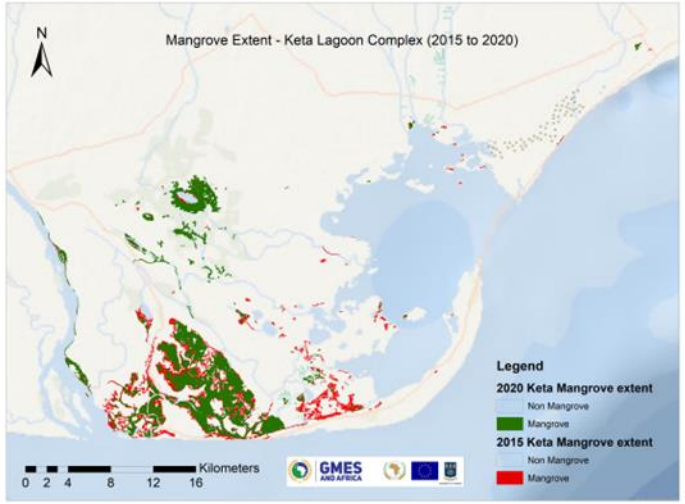
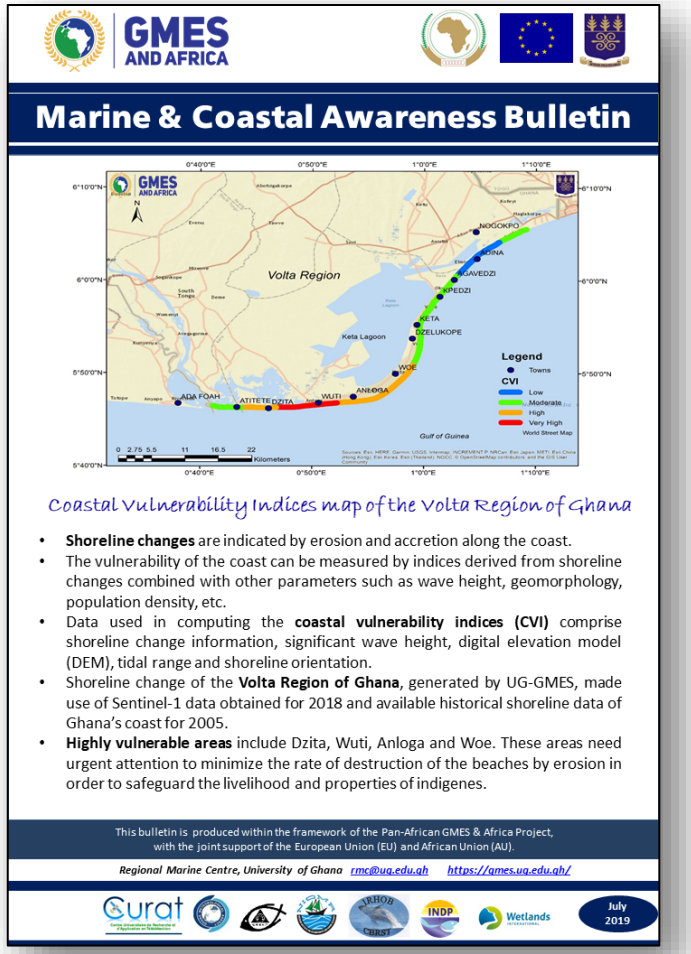
Potential Fishing Zone (PFZs) maps



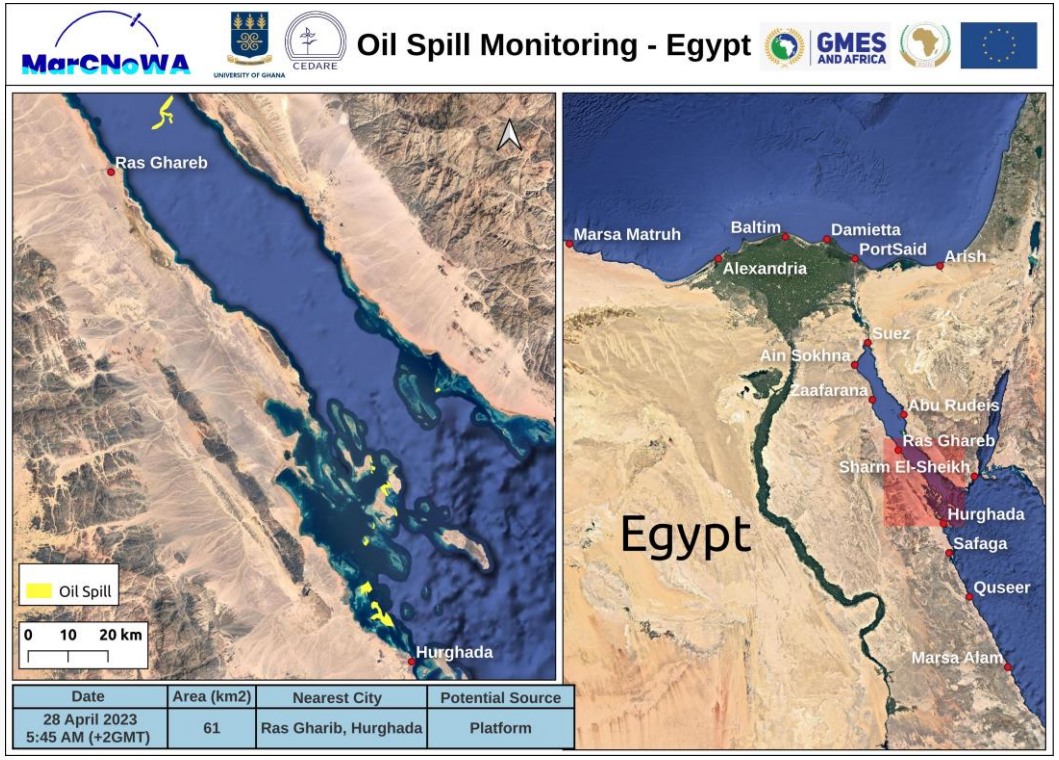
Mangrove extent maps



Coastal Vulnerability maps



Oil Spill Occurrence maps



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Need more useful information?

Email: rmc@gmes.ug.edu.gh

Website: https://gmes.rmc.africa

Twitter: https://twitter.com/ug_gmes

https://twitter.com/nafcoast

Facebook: https://www.facebook.com/RegionalMarineCentre

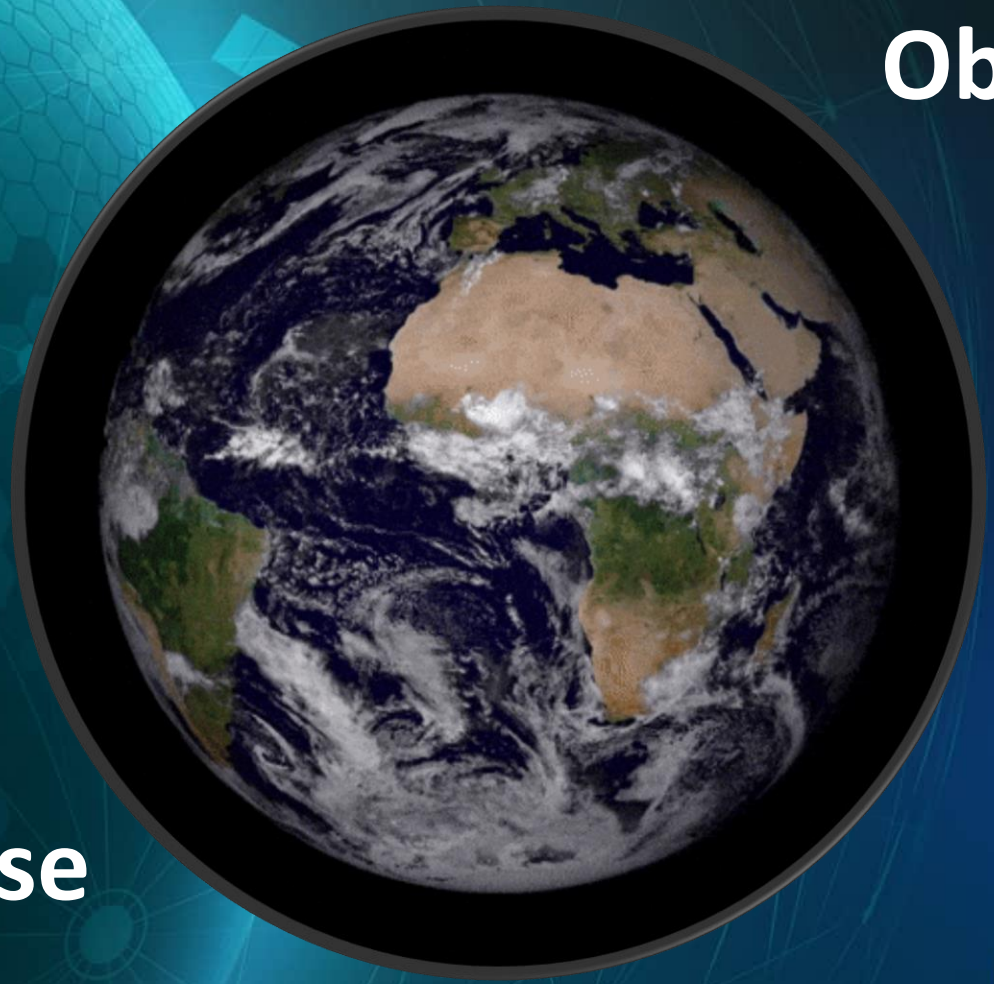
Na gode

Thank You

Merci

Obrigado

Oyiwaladon



شكرا

Asante sana

Dankie

Daalụ

Medaase

Matondi

Danke

Grazie

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WEKEO

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