



Data Access Webinar

The CoRDiNet project is financed by the European Commission under the Horizon 2020 program, grant no. 821911.



Horizon 2020
European Union Funding
for Research & Innovation

EO Data Access

for Emergency Response and Disaster Risk Management Webinar

John Remedios

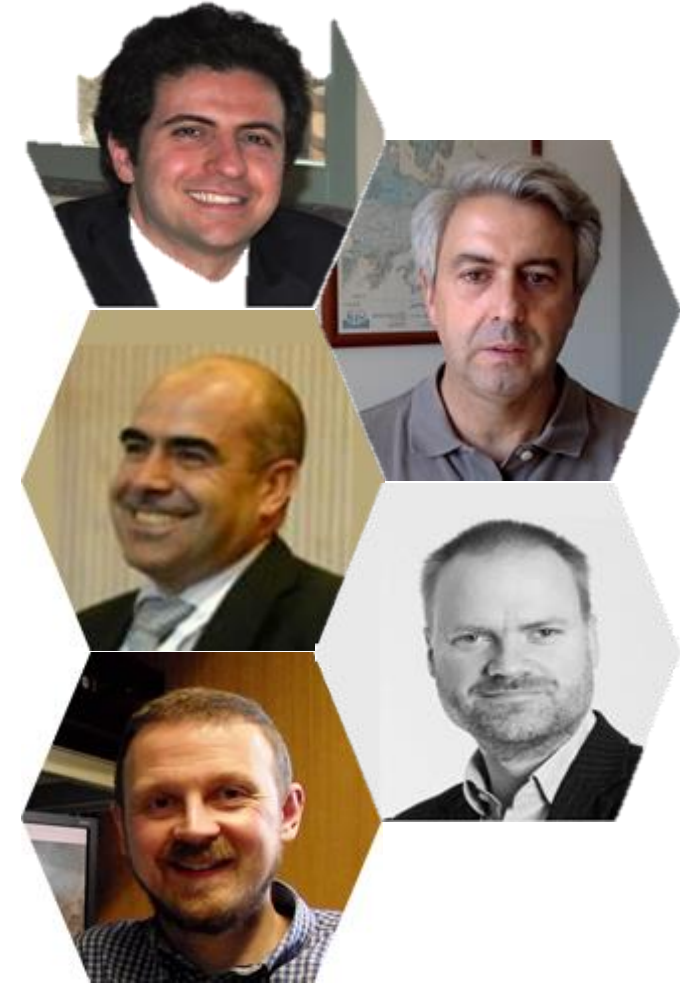
Svetlana Zolotikova

Reema Sandhu

Nishad Karim

Overview

- **Section 1 - Introduction**
 - CoRdiNet Project
 - Copernicus Emergency Management Service
 - Other sources of data for emergency management/risk reduction
- **Section 2 - Guest speakers**
 - Attilio Gambardella: Copernicus Emergency Management Service – An Overview
 - Jesús San-Miguel-Ayanz: EMS – Wildfire: Early Warning and Monitoring
 - Antonio Tabasco Cabezas: The Experience of a Copernicus Relay Industry Working in Emergency and Disaster
 - David Hodgson: International Charter: Space and Major Disasters
 - David Moore: Mozambique Flooding from Cyclone Idai – NCEO Response and Lessons Learnt
 - Summary
- **Section 3 – Q&A**





- **Open network** with 5 Copernicus Relays
- Digitalization and new business solutions based on EO data from the Copernicus Programme
- Local expertise in the civil use of Earth observation close to the needs and offers of citizens, administration and businesses at a regional level
- We prioritise the regional approach to increase regional awareness of the capabilities of Copernicus
- We have funded projects that foster Copernicus user uptake outside the CoRdiNet network

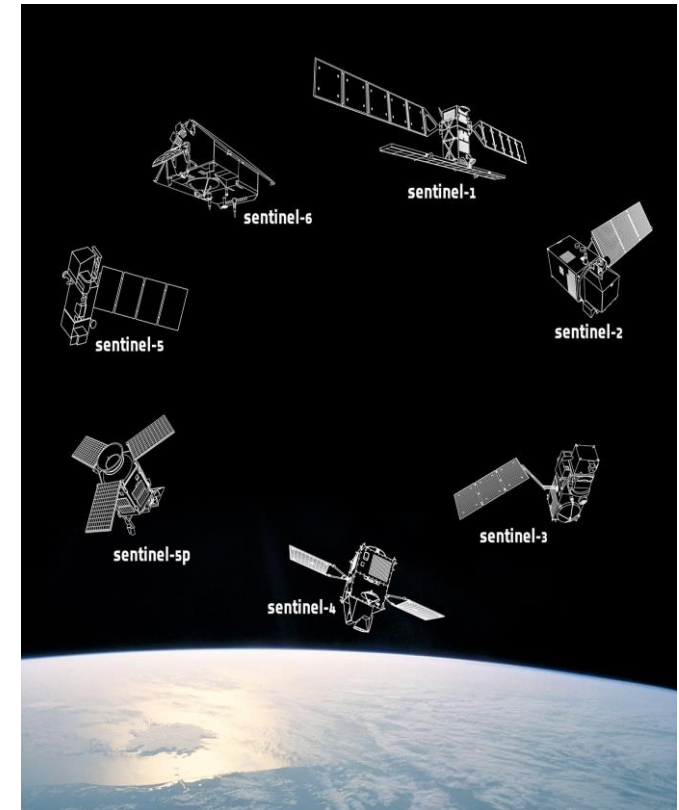
www.cordinet.net



- **Flagship programme** of the European Union:
- Monitors **the Earth**, its environment and ecosystems
- Prepares for **crises, security risks** and **natural and man-made disasters**
- Uses data from satellites and collects information from in-situ systems.

<https://www.copernicus.eu/en/access-data>

- Adopts a **full, free and open data policy**
- Provides services in six **thematic streams**



COPERNICUS SERVICES

Monitoring the State of the Earth System Environment ...



... Six cross-cutting Thematic Services



Copernicus Emergency Management Service (EMS)

- Provides information for emergency response in relation to different types of disasters including natural and manmade, as well as prevention, preparedness, response and recovery.
- Geo-spatial information is derived from satellite remote sensing and completed by available in situ or open data sources.

The EMS comprises two components:

- **On-demand Mapping**
- **Early warning & monitoring**





EMS Data Access



Anyone can access data **if** the service is activated.

A specific disaster event can be investigated by Copernicus on submitting an **'activation' request**.

This request can **only** be submitted by an **authorised user**. Each Member State, as well as countries participating in the Union Civil Protection Mechanism (UCPM), has a nominated Authorised User.

Users from international organisations and requestors outside the EU from countries not participating in the UCPM, should contact ERCC, which may be able to activate the EMS on their behalf.

User guide is available here:

<https://www.copernicus.eu/en/new-copernicus-emergency-management-user-guide>

Accessing EMS Data

Screen shot of EMS Data Access page: <https://emergency.copernicus.eu/emldata.html>

EMS Data Access

The EMS services provide various ways to access or download the data. Just click on the links below.



Mapping

[List of EMS Rapid Mapping Activations](#)

[List of Risk & Recovery Mapping Activations](#)

[Web Map Viewer](#)



Flood

[EFAS Data Access](#)

[GloFAS Data Access](#)



Wildfires

[EFFIS Data Request Form](#)

[EFFIS Data Access](#)



Drought

[EDO Data Access](#)

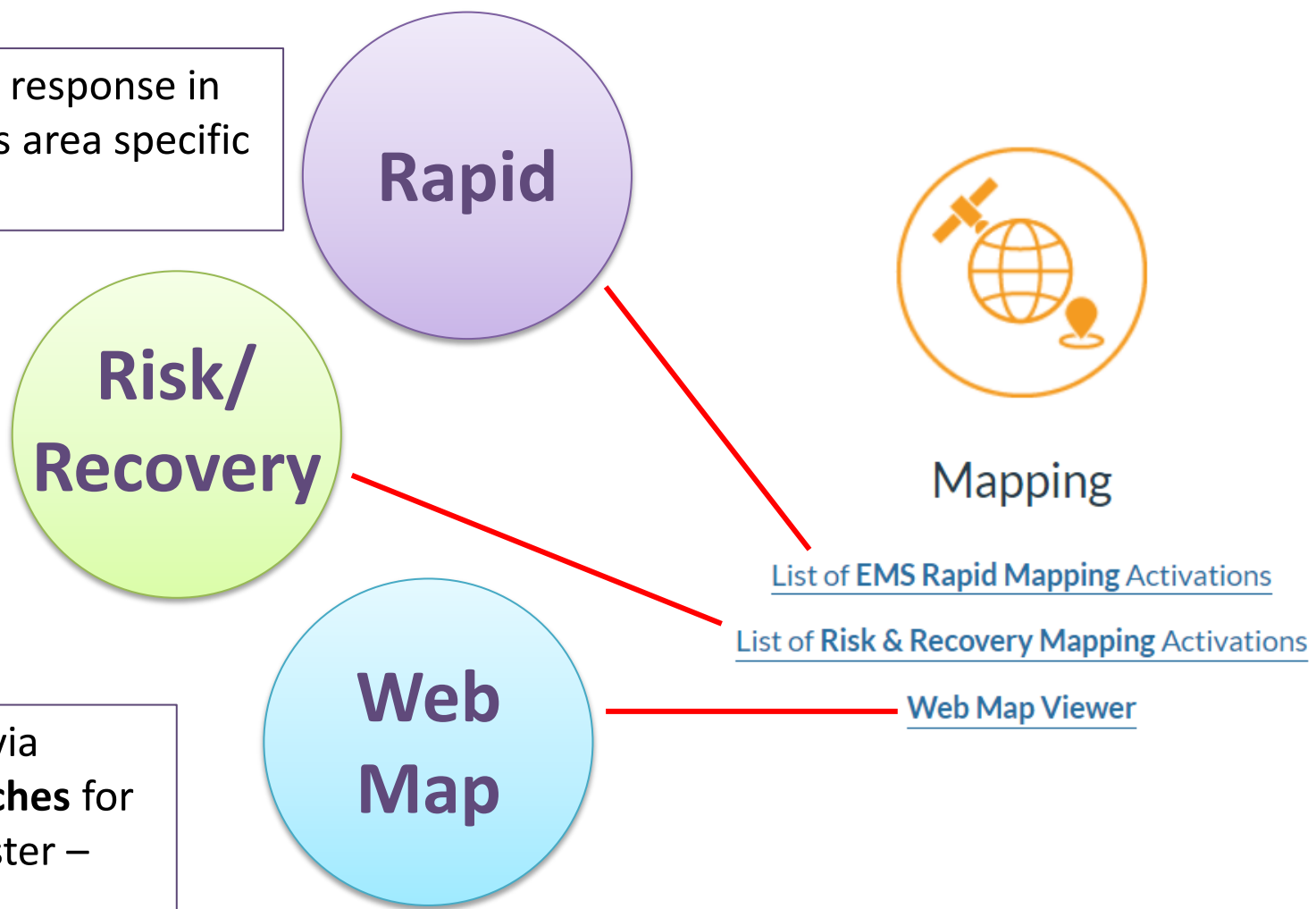
[GDO Data Access](#)

Two types of mapping activations + viewer:

Emergency disaster response in **real time** – provides area specific maps

Data collected for a region at **risk before** a disaster event or a significant time **after** a disaster event to aid area **reconstruction** – provides maps, reports and factsheets

View activated disasters via global **maps**; allows **searches** for any recent reported disaster – provides global maps.



Rapid

COPERNICUS
Emergency Management Service - Mapping

Home | What is Copernicus | EMS - Mapping | Linking with Early Warning Systems

LATEST NEWS - 2020-11-12 | The Copernicus Emergency Management Service analyzes the evolution of the city of Hanoi during this year.

EMS - MAPPING

- Service Overview
- Who can use the service
- How to use the service
- Portfolio: Rapid Mapping
- Portfolio: Risk and Recovery
- Quality control
- User Guide

EMSR417 | Tropical Cyclone Eta in Honduras

Act. Code	Title	Event Date (UTC)	Start date	End date	Affected Countries
EMSR417	Tropical Cyclone Eta in Honduras	2020-11-08	2020-11-08	2020-11-12	Honduras
EMSR479	Flood in Tabasco, Mexico	2020-11-07	2020-11-07	2020-11-12	Mexico
EMSR478	Tropical Cyclone Isaias in Philippines	2020-11-02	2020-11-02	2020-11-12	Philippines
EMSR477	Tropical Cyclone Isaias in Nicaragua	2020-11-02	2020-11-02	2020-11-12	Nicaragua
EMSR476	Earthquake in Turkey	2020-10-30	2020-10-30	2020-10-30	Turkey
EMSR475	Tropical cyclone Moina in Vietnam	2020-10-28	2020-10-28	2020-10-28	Vietnam
EMSR474	Flood in Fribourg, Spain	2020-10-21	2020-10-21	2020-10-21	Spain
EMSR473	Floods in County Wick, Ireland	2020-10-20	2020-10-20	2020-10-20	Ireland
EMSR472	Floods in Vietnam	2020-10-12	2020-10-12	2020-10-12	Vietnam
EMSR471	Flood in Slovakia	2020-10-13	2020-10-13	2020-10-13	Slovakia
EMSR470	Flood in Togo	2020-10-08	2020-10-08	2020-10-08	Togo

COPERNICUS
Emergency Management Service - Mapping

Home | What is Copernicus | EMS - Mapping | Linking with Early Warning Systems

LATEST NEWS - 2020-11-12 | The Copernicus Emergency Management Service analyzes the evolution of the city of Hanoi during this year.

EMS - MAPPING

- Service Overview
- Who can use the service
- How to use the service
- Portfolio: Rapid Mapping
- Portfolio: Risk and Recovery
- Quality control
- User Guide

EMSR417 | Tropical Cyclone Eta in Honduras

Event Time (UTC): 2020-11-08 18:00
Event Type: Storm (Tropical cyclone, hurricane, typhoon)
Activation Time (UTC): 2020-11-11 12:14
Activation Status: Closed
Affected Countries/Territories: Honduras
Service Impact: 3 products (3 maps)
Authorized Users: EC Services/DS ECHO

Activation Reason: Hurricane Eta began impacting Honduras on 04 November, triggering large scale inland land floods. The National Permanent Commission of Honduras (CONPER) and the National Coordination Centre for Natural Prevention Centre (CENPRENAC) are requesting the activation in order to coordinate emergency response, population, crop damaged or lost, road and other critical infrastructure affected or destroyed.

Consult the [User Manual](#) for guidance on the use and interpretation of the products delivered.

Filter by product type: ALL - DELINEATION

Filter by Act: ALL - Choluteca Lower Basin [02] - Lower Aguan Basin [03] - Ulué Basin [04]

Products ordered by date of publication (most recent on top):

- [EMSR417] Ulué Basin (Delineation Product, version 1, release 1, RFP Map #01)**
Published: 2020-11-12 15:47:29 (UTC)
Product version: v1
Status: Quality approved
- [EMSR417] Lower Aguan Basin (Delineation Product, version 1, release 1, RFP Map #01)**
Published: 2020-11-12 14:29:29 (UTC)
Product version: v1
Status: Quality approved
- [EMSR417] Ulué Basin (Delineation Product, version 1, release 1, RFP Map #01)**
Published: 2020-11-12 14:29:29 (UTC)
Product version: v1
Status: Quality approved

Risk/Recovery

COPERNICUS
Emergency Management Service - Mapping

Home | What is Copernicus | EMS - Mapping | Linking with Early Warning Systems

LATEST NEWS - 2020-11-12 | Tropical Cyclone Eta in Central America

EMS - MAPPING

- Service Overview
- Who can use the service
- How to use the service
- Portfolio: Rapid Mapping
- Portfolio: Risk and Recovery
- Quality control
- User Guide

EMSR083 | Crop change detection in conflict areas, Nigeria, October 2020

Act. Code	Title	Event Date (UTC)	Start date	End date	Affected Countries
EMSR083	Crop change detection in conflict areas, Nigeria, October 2020	2020-10-20	2020-10-20	2020-10-20	Nigeria
EMSR082	Flood in Cameroon for health impact	2020-10-19	2020-10-19	2020-10-19	Cameroon
EMSR081	Explosion in Beirut, Lebanon (detailed damage and impact assessment)	2020-10-18	2020-10-18	2020-10-18	Lebanon
EMSR080	Land use mapping and population dynamics analysis for Bangladesh, Libya	2020-10-18	2020-10-18	2020-10-18	Libya
EMSR079	Post-disaster assessment after wildfire events in the south and southwestern regions of Iran	2020-10-18	2020-10-18	2020-10-18	Iran
EMSR078	Traditional preparations (fire assessment in Andalusian forest coast), Spain	2020-10-18	2020-10-18	2020-10-18	Spain
EMSR077	Post-disaster mapping of severe fires in the Westwing National Park, Romania (detailed damage and impact assessment)	2020-10-18	2020-10-18	2020-10-18	Romania
EMSR076	Germany 9M AEM update	2020-10-18	2020-10-18	2020-10-18	Germany
EMSR075	Recent fire preparations, Ukraine	2020-10-18	2020-10-18	2020-10-18	Ukraine

COPERNICUS
Emergency Management Service - Mapping

Home | What is Copernicus | EMS - Mapping | Linking with Early Warning Systems

LATEST NEWS - 2020-11-12 | Tropical Cyclone Eta in Honduras

EMS - MAPPING

- Service Overview
- Who can use the service
- How to use the service
- Portfolio: Rapid Mapping
- Portfolio: Risk and Recovery
- Quality control
- User Guide

EMSR083 | Crop change detection in conflict areas, Nigeria, October 2020

Event Time (UTC): 2020-09-07 00:00
Event Type: Humanitarian
Activation Time (UTC): 2020-10-19 09:00
Activation Status: Closed
Affected Countries/Territories: Nigeria
Area Description: NE Nigeria
Authorized Users: EC Services/DS ECHO

Short Activation Overview
 The scope of the activation is to support the WFP officers with geospatial analysis regarding the agriculture and food security situation and nutrition analysis in Borno state in north-eastern Nigeria. Due to the inaccessibility of the region caused by on-going armed conflicts, the impact of the conflict needs to be estimated for changes in cropland (loss/gain) and affected population in case of cropland loss. The current activation is an update of previous ones, assessing changes between 2019 & 2019 and 2020 & 2020.

More information overview
 The scope of the activation is to support the WFP officers with geospatial analysis regarding the agriculture and food security situation and nutrition analysis in Borno state in north-eastern Nigeria. Due to the inaccessibility of the region caused by on-going armed conflicts, the impact of the conflict needs to be estimated for changes in cropland (loss/gain) and affected population in case of cropland loss. The current activation is an update of previous ones, assessing changes between 2019 & 2019 and 2020 & 2020.

The process used followed to implement the analysis was:

Activation Factsheets: [EMSR083] Factsheet - Crop Change (Download)
Activation Final Report: [EMSR083] Final Report - v1 (Download)

Filter by product type: ALL - DELINEATION [01] - Kala/Balga [02] - Bakawa [03]

Filter by Act: ALL - Abudun [01] - Sarama [02] - Kala/Balga [03] - Bakawa [03]

Products ordered by date of publication (most recent on top):

- [EMSR083] Kala/Balga: Crop Change (Download)**
Published: 2020-11-08 00:00:00 (UTC)
Product version: v2
Status: Production finished
- [EMSR083] Bakawa: Crop Change (Download)**
Published: 2020-11-08 00:00:00 (UTC)
Product version: v2
Status: Production finished

Web Viewer

COPERNICUS
Emergency Management Service - Mapping

Home | What is Copernicus | EMS - Mapping | Linking with Early Warning Systems

LATEST NEWS - 2020-11-12 | Tropical Cyclone Eta in Central America

Choose activation

Activation ID: - any -
 Activation title: - any -
 Event type: - any -
 Start date: dd/mm/yyyy
 End date: dd/mm/yyyy

RESET SEARCH

Activation ID	Activation title	Country	Event date	Event type
<input type="checkbox"/>	EMSR482 Tropical Cyclone Eta in Honduras (2020-11-07)	Honduras	2020-11-07T23:23:34	Flood
<input type="checkbox"/>	EMSR481 Tropical Cyclone Eta in Honduras (2020-11-07)	Honduras	2020-11-07T23:24:27	Storm
<input type="checkbox"/>	EMSR480 Flood in Crete Region, Greece (2020-11-07)	Greece	2020-11-07T23:23:57	Flood
<input type="checkbox"/>	EMSR479 Flood in Tabasco, Mexico (2020-11-08)	Mexico	2020-11-08T23:23:53	Flood

Activation Copernicus
 Copernicus EMS - Mapping - Activation system

- EMSR479
 - [AO101]Cardenas
 - [AO102]Villahermosa
- EMSR417
 - [AO101] Puerto Lajas
 - [AO102] La Cruz De Rio Grande
 - [AO103] Ulué Basin
 - [AO104] Choluteca Basin
 - [AO105] Lower Aguan Basin
 - [AO106] Moutagna Basin
 - [AO107] Lake Izabal
 - [AO108] Middle Patuca Basin
 - [AO109] Jralaya

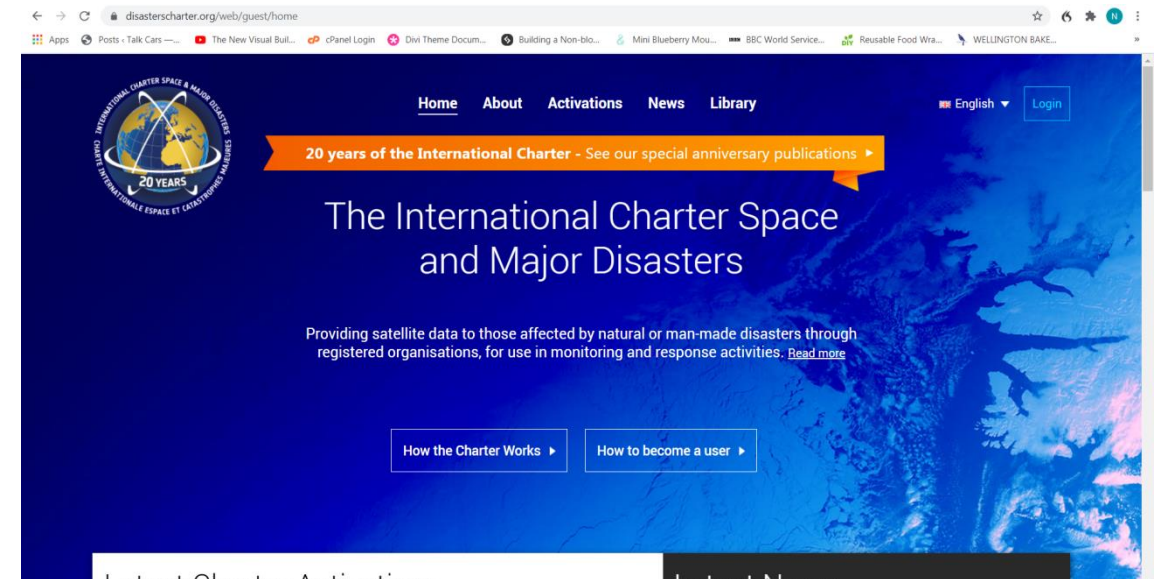
Other Sources of Data and Important Links

The International Charter Space and Major Disasters

“Providing satellite data to those affected by natural or man-made disasters through registered organisations, for use in monitoring and response activities”



- To become an authorised user, you must:
 - Be a national disaster management authority or its delegated agency in that country
 - Have the capacity to download and utilise maps
 - Be able to submit and pursue its activation requests in English



<https://disasterscharter.org/web/guest/home>

Group on Earth Observation - GEO

<http://www.earthobservations.org/index.php>



“An intergovernmental partnership that improves the availability, access and use of Earth observations for a sustainable planet.”

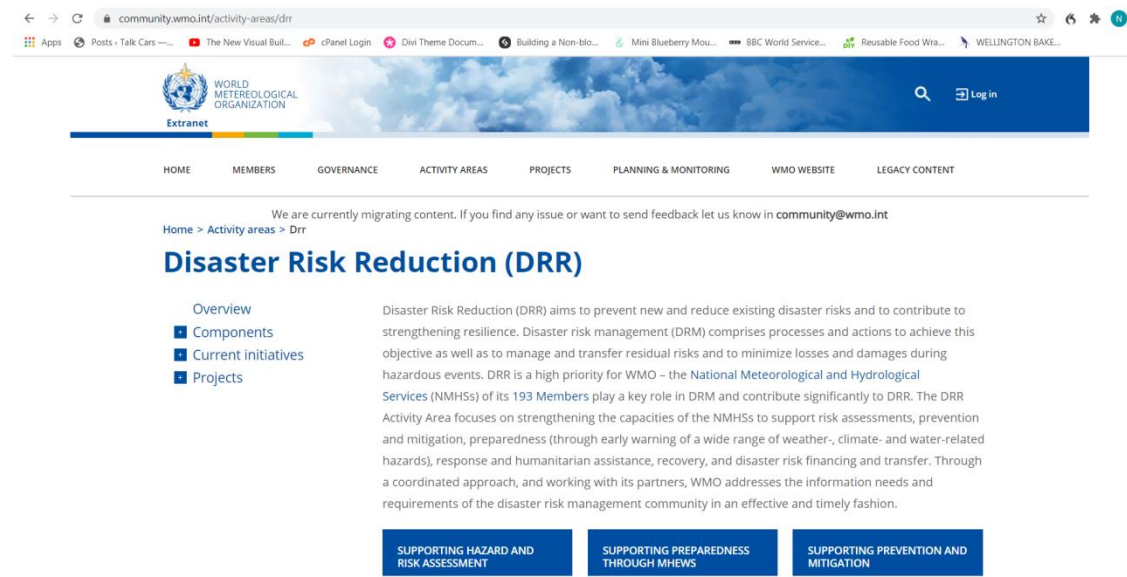
- Membership in GEO is open to all member States of the United Nations and to the European Commission.



WMO Integrated Global Observing System (WIGOS) and Disaster Risk Reduction (DRR)

“As weather, climate and the water cycle know no national boundaries, international cooperation at a global scale is essential for the development of meteorology, climatology and operational hydrology as well as to reap the benefits from their application. WMO provides the framework for such international cooperation.”

- WMO is a specialized agency of the United Nations (UN) with 193 Member States and Territories.

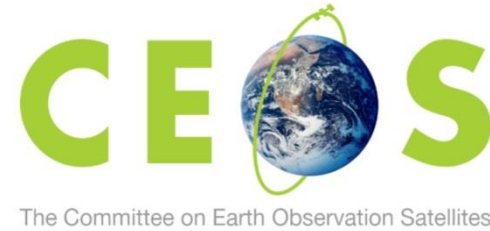


<https://public.wmo.int/en/about-us/vision-and-mission/wmo-integrated-global-observing-system>



Committee for Earth Observation Systems (CEOS)

<http://ceos.org/>



“CEOS ensures international coordination of civil space-based Earth observation programs and promotes exchange of data to optimize societal benefit and inform decision making for securing a prosperous and sustainable future for humankind.”

- Membership: 61 space agencies from all over the world, operating 172 satellites

Other Sources of Data and Important Links

- The International Charter Space and Major Disasters
- The Group on Earth Observations (GEO)
- WMO Integrated Global Observing System (WIGOS)
- Committee for Earth Observation Systems (CEOS)

We have created a pdf and video guide detailing how to access the relevant pages for these sites. Check the CoRdiNet website.

- Earthquakes and volcanos:
 - **COMET-LiCS Sentinel-1 InSAR portal**
 - <https://comet.nerc.ac.uk/comet-lics-portal/>
 - **SARVIEWS**, funded by NASA <https://sarviews-hazards.alaska.edu/>
- Sentinel user products and data
 - <https://scihub.copernicus.eu/> - available from the Copernicus Open Access Hub

CoRdiNet and NCEO links

- **CoRdiNet website** – contains pdfs for this and other speakers webinar presentations, plus additional pdf manuals on finding and accessing EO data: www.cordinet.net
- **CoRdiNet YouTube channel** – <https://www.youtube.com/channel/UCig26c9SbasTkSETM6daXvg>
- **CoRdiNet twitter:** <https://twitter.com/CordinetB>
- **NCEO website** – <https://www.nceo.ac.uk/>
- **NCEO twitter:** <https://twitter.com/NCEOscience>



Guest Speakers



**Attilio
Gambardella**



Copernicus
Europe's eyes on Earth



**Jesús San-Miguel-
Ayanz**



Emergency
Management



**Antonio Tabasco
Cabezas**



gmv



**David
Hodgson**



INTERNATIONAL CHARTER SPACE & MAJOR DISASTERS
CHARTRE INTERNATIONALE ESPACE ET CATASTROPHES MAJEURES



**David
Moore**



National Centre for
Earth Observation
NATURAL ENVIRONMENT RESEARCH COUNCIL



Data Access Webinar

The CoRDiNet project is financed by the European Commission under the Horizon 2020 program, grant no. 821911.

Contact Svetlana Zolotikova on sz63@leicester.ac.uk Find out more about the CoRDiNet project on www.cordinet.net



Horizon 2020
European Union Funding
for Research & Innovation