

Big data from Copernicus & its Emergency Management Service (EMS) for Africa's Disaster management



Emergency Management

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UN-SPIDER, Bonn 12 November 2018





Outline

Copernicus programme

- what is it ?

<https://www.youtube.com/watch?v=Ug8vqu810b4>

The 6 services from Copernicus

The Emergency service



Copernicus current status

Monitoring of earth systems



Land



Marine



Atmosphere

The six Copernicus
services



Security



Emergency



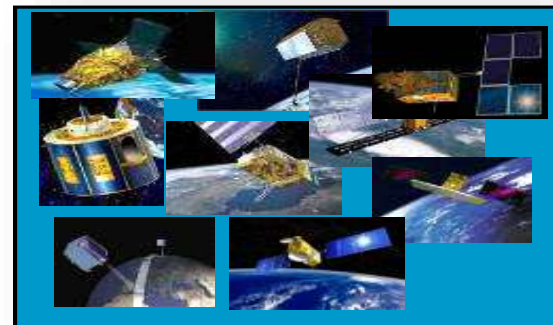
Climate Change



Emergency

Copernicus architecture

6 services use Earth
Observation data to
deliver ...



Contributing missions

Sentinels



...added-value products



in-situ

an
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Emergency
Management

Emergency Management Service (EMS)



Helping victims when disaster strikes



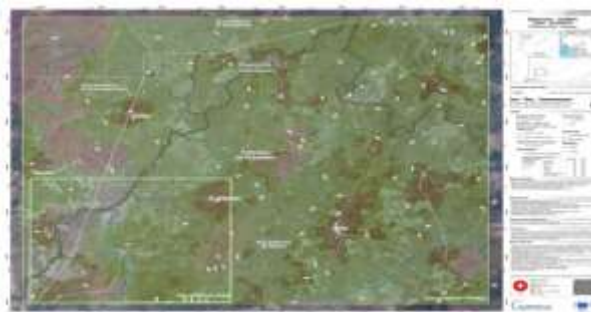


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EMS Rapid Mapping examples



Tropical Cyclone,
Vanuatu



Ebola epidemic, Guinea



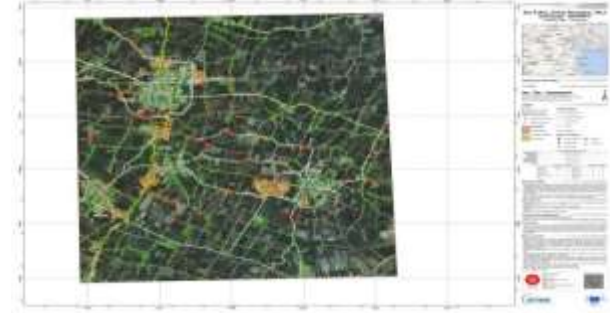
Earthquake,
Nepal



Refugee Camp,
Al Mafrag Jordan



Floods,
Ostlandet Norway

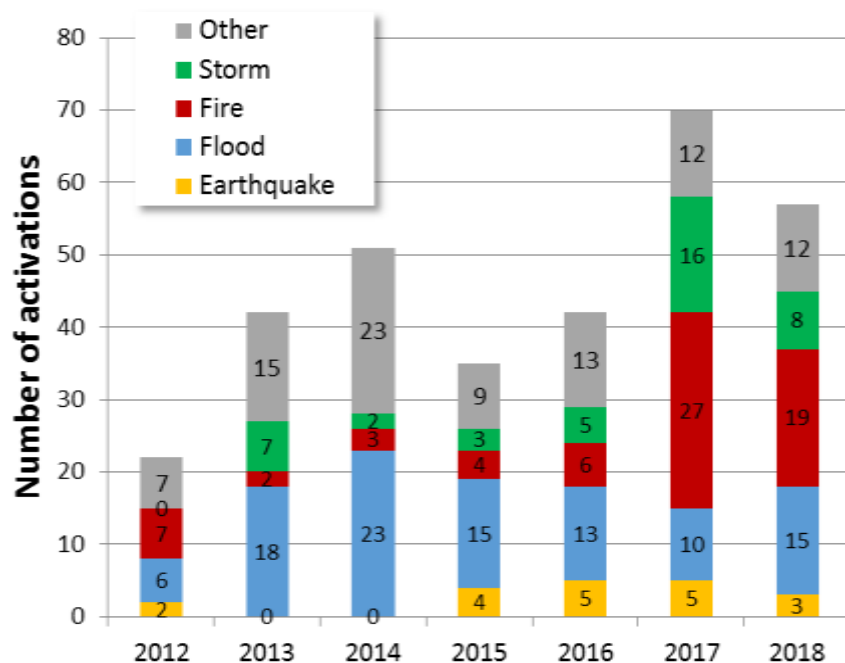
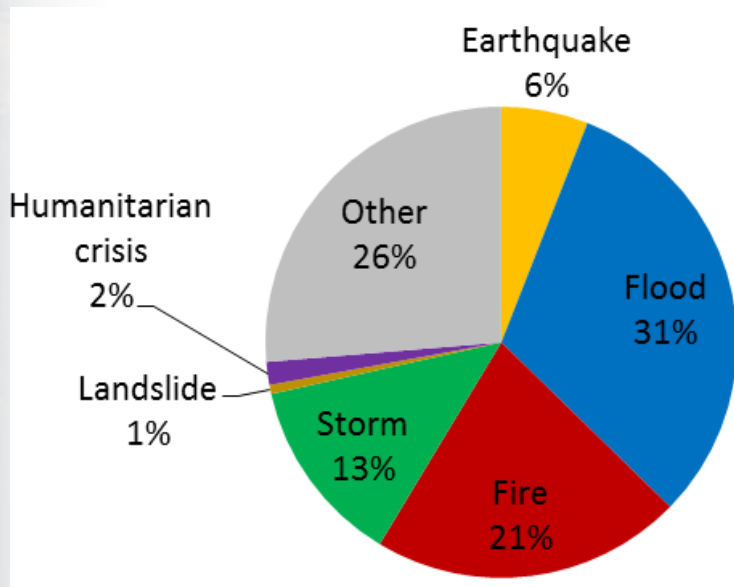


Earthquake, San Felice
sul Panaro, Italy



Rapid Mapping – Event types

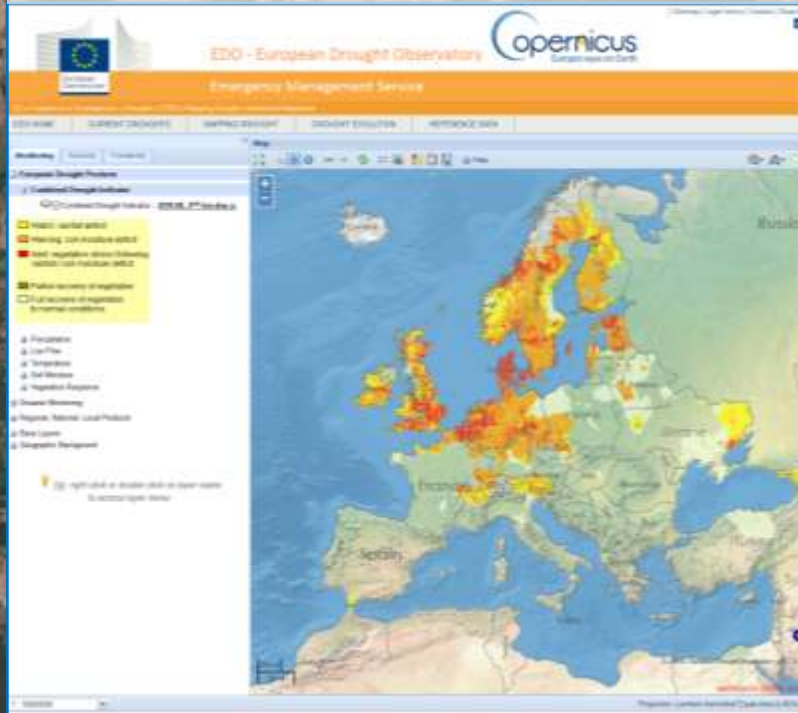
319 activations (2012-2018)*



* status 30/09/2018

Drought Observatory

To monitor and forecast droughts



To analyse the risk of drought impacts



Drought in Germany observed by Sentinel-2



Emergency
Management

GMES and Africa

Long-standing EU-Africa Cooperation to support
Africa's own capacity to exploit EO



2006:

*Maputo Declaration
Call to extend the benefits of
European GMES programme
to ACP countries*



2007:

*Lisbon Declaration
Launch of GMES & Africa*

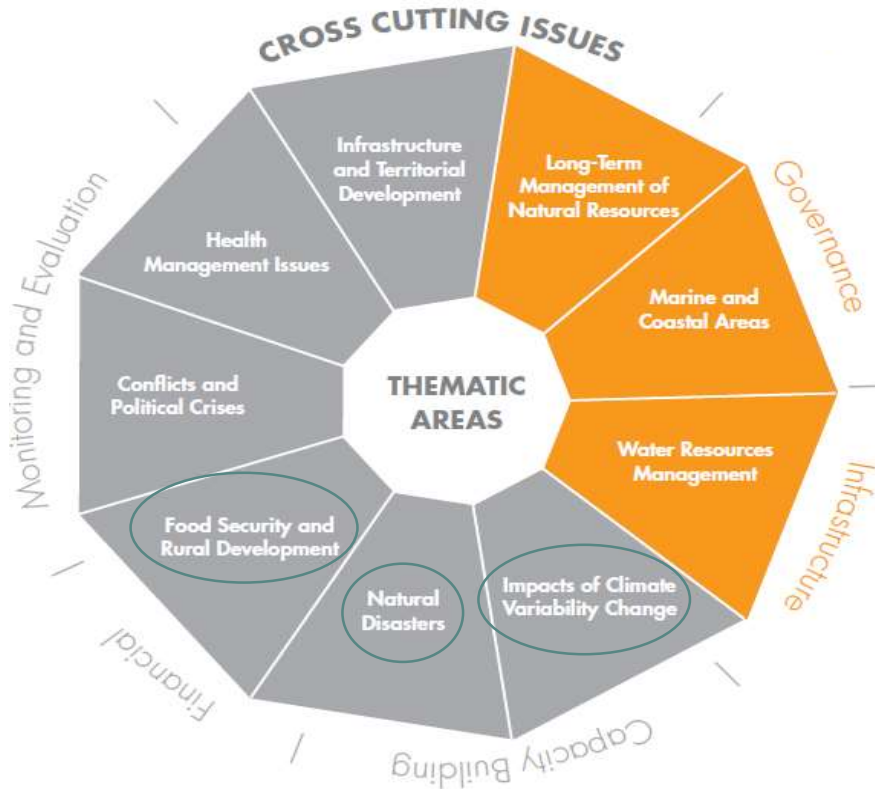
GMES/Copernicus programme as a main pillar of GMES & Africa

2018: EC-AUC Cooperation Arrangement signed on Access to Sentinel data



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Current and future thematic areas of GMES & Africa





New & Future Developments for Copernicus EMS

- **Drought Observatory** new Early Warning component from 2018
- **International framework agreements** bilaterally with countries/international organisations (Internat. Charter, African Union, CEOS)
- Use of airplanes and **drones** for image acquisition
- Use of **social media** for early alerts (in addition to open data)
- **Platforms of platforms** (with various types of data, not just satellites, algorithms, machine learning..)
- Building of a **common platform among international agencies** in case of large disasters



Thank you for your attention

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