



# El señor de los mapas

## Caso de uso real de INSPIRE para los servicios Copernicus

[Alejandro.guinea@Geograma.com](mailto:Alejandro.guinea@Geograma.com)

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## 2007, el comienzo del viaje



# Copernicus in situ



**Marina**



**Atmósfera**



**Tierra**



**Seguridad**



**Emergencia**



**Clima**



COPERNICUS

Emergency Management Service



LATEST NEWS - 2019-09-27 | Copernicus EMS Monitors Impact of Flood in the southeast of Spain

## Copernicus Emergency Management Service

Copernicus Emergency Management Service (Copernicus EMS) provides information for emergency response in relation to different types of disasters, including meteorological hazards, geophysical hazards, deliberate and accidental man-made disasters and other humanitarian disasters as well as prevention, preparedness, response and recovery activities. The Copernicus EMS is composed of an on-demand mapping component providing rapid maps for emergency response and risk & recovery maps for prevention and planning and of the early warning and monitoring component which includes systems for floods, droughts and forest fires:

### Copernicus EMS - Mapping

The Copernicus EMS - Mapping addresses, with worldwide coverage, a wide range of emergency situations resulting from natural or man-made disasters. Satellite imagery is used as the main datasource. The service covers in particular:

- Floods
- Severe Storms
- Tsunamis
- Volcanic eruptions
- Earthquakes
- Technol. disasters
- Landslides
- Humanitarian crises
- Fires



Copernicus EMS - Mapping

### European & Global Flood Awareness System

The European and Global Flood Awareness Systems (EFAS & GloFAS) provide complementary flood forecast information to relevant stakeholders supporting flood risk management at national, regional and global level.

The forecasts are derived using in-situ and satellite data as well as hydro-meteorological models and aim at facilitating users with a wide range of added value (medium-range lead time, probabilistic, river basin wide, flash flood indicators etc.) flood forecast products.



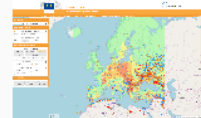
EFAS

GloFAS

### European Forest Fire Information System (EFFIS)

The European Forest Fire Information System (EFFIS) monitors forest fire activity in near-real time and in Europe, Middle East and North Africa and supports wildfire management at national and regional scales.

At the global scale, the JRC leads the development of the Group on Earth Observations (GEO) Global Initiative for the development of a Global Wildfire Information System (GWIS), supported by EU Copernicus and NASA programs.



EFFIS

### Drought Observatory

The EMS Drought Observatory (DO) provides drought-relevant information and early-warnings for Europe (EDO) and the globe (GDO). Short analytical reports (Drought News) are published in case of imminent droughts.

EDO and GDO build on open web services and connect drought data providers and users from global to regional levels.



EDO

GDO



# Servicio de monitorización del suelo

Copernicus is a European system for monitoring the Earth. Data is collected by different sources, including Earth observation satellites and in-situ sensors. The data is processed and provides reliable and up-to-date information in six thematic areas: land, marine, atmosphere, climate change, emergency management and security. The land theme is divided into four main components:



## Global

*provides a series of bio-geophysical products on the status and evolution of the land surface at global scale at mid and low spatial resolution*



## Pan-European

*provides information about the land cover and land use (LC/LU), land cover and land use changes and land cover characteristics*



## Local

*focuses on different hotspots, i.e. areas that are prone to specific environmental challenges and problems*



## Imagery and reference data

*satellite imagery forms the input for the creation of Copernicus land products. In order to ensure an efficient and effective use of satellite data the Copernicus land monitoring service needs access to in-situ data*

- Datos actualizados
- De la mayor calidad posible
- Encontrarlos
- Evaluarlos
- Acceder
- Amplia cobertura

INSPIRE



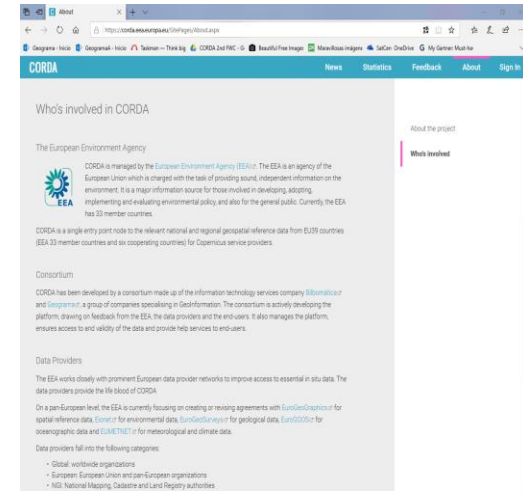
# Necesidad de datos in situ





# CORDA (Copernicus Reference Data Access)

- Objetivo: Facilitar datos in situ a los servicios de Copernicus
- Beneficio directo cuando INSPIRE está implementado
- La quasi-interoperabilidad es una gran barrera
  - Descarga
  - Interpretación
- El volumen, otro reto a añadir



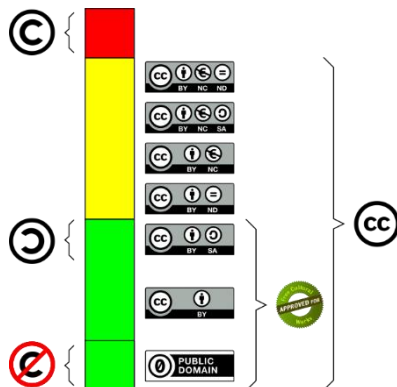
Proveedores de datos



# Otros aspectos

# I ♥ LOW COST

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2019-10-23/25



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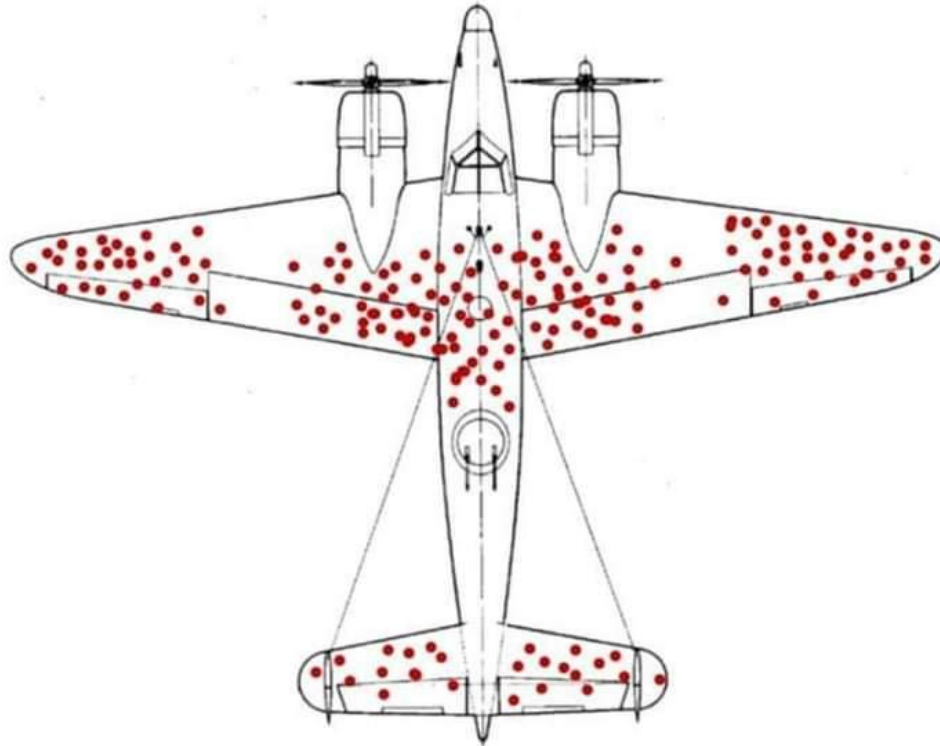
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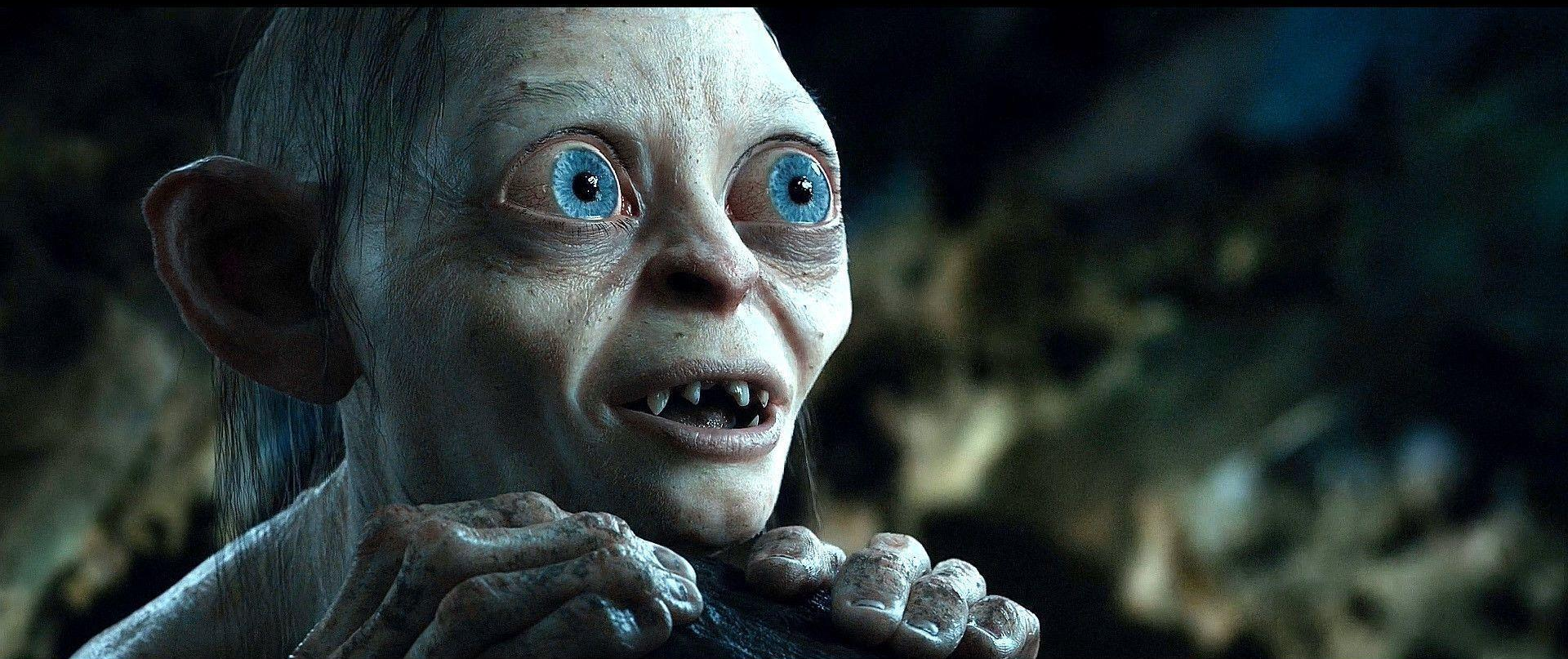
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# Otros aspectos





Gracias por su atención