



**Designing research  
infrastructure  
with purpose**

**Jacqueline McGlade  
European Environment Agency**



# Distributed research is already underway

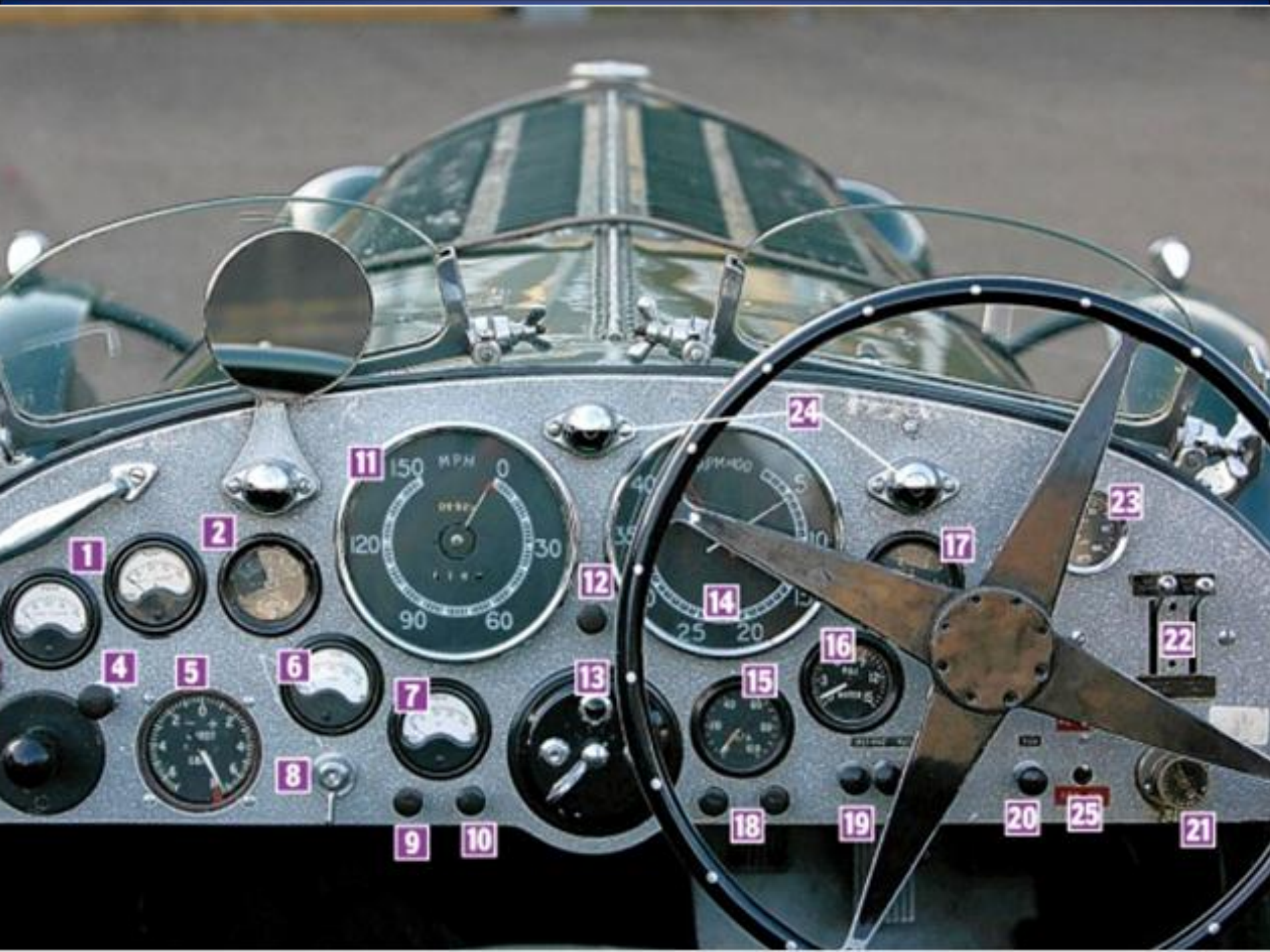
## *Hundreds Of Thousand of Organizations*

- Understanding Global Climate Change
- Natural Resource Inventory
- Disaster Response
- Business Efficiency
- Managing Land and Water
- Biodiversity & Ecosystem Conservation
- Environment and Human Health
- Forest Management
- Land Information Management



*Our next challenge....*









# Why Are We Here?



# Designing for the Future

**Information Needs to be Shared and Made Accessible, Anytime, AnyWhere . . . And Put into A Format That Supports Action**

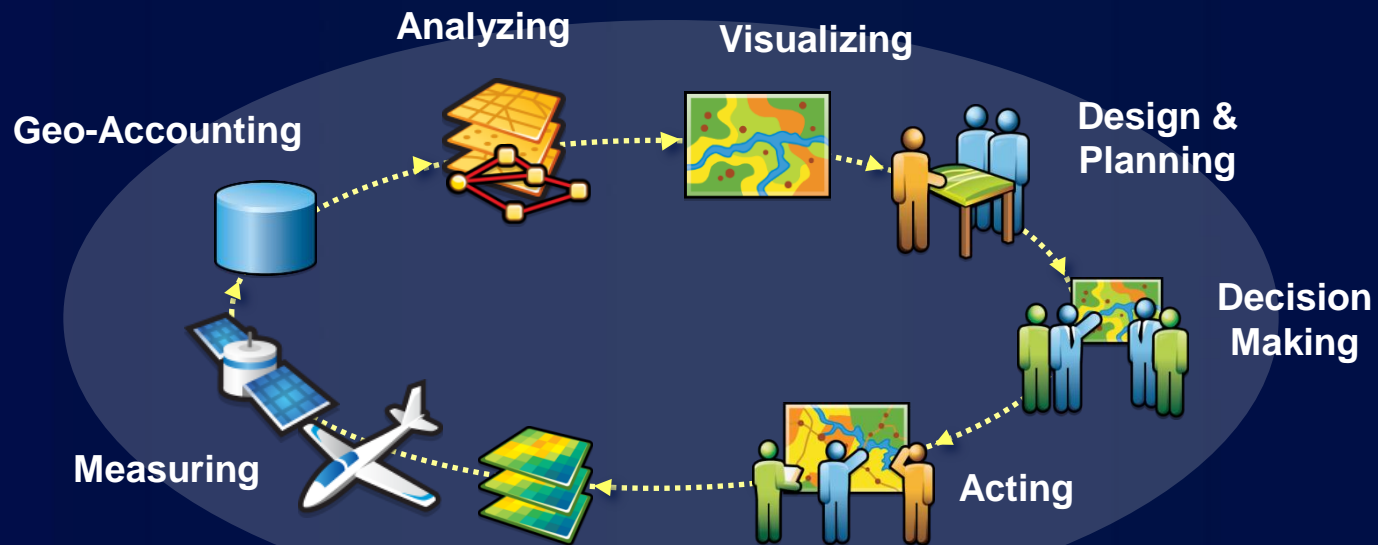
- We're measuring everything that moves
- Not just about visualization, data quality
- Need to share, make it available, free access tools for visualization and mapping
- Bringing actionable information and tool into society
- Anytime, anywhere
- Make decisions
- Understand the consequences of our actions
- Train the world

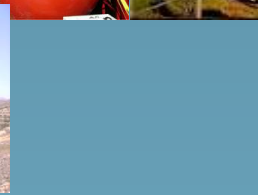
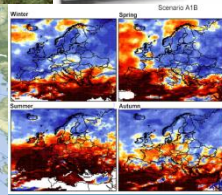
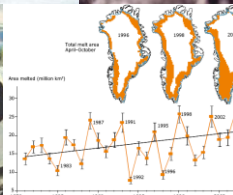
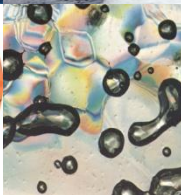
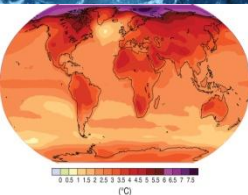
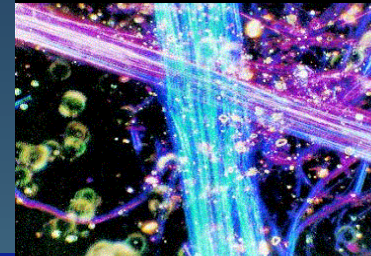
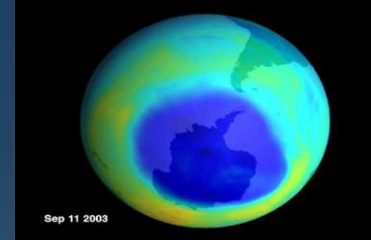
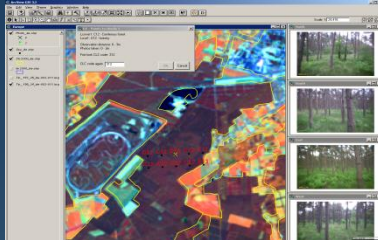
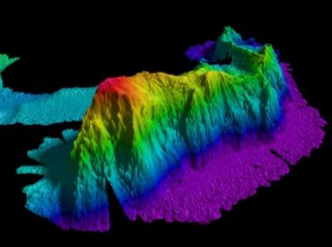
*We need better information products ...*



# GeoDesign – a process for geographic design

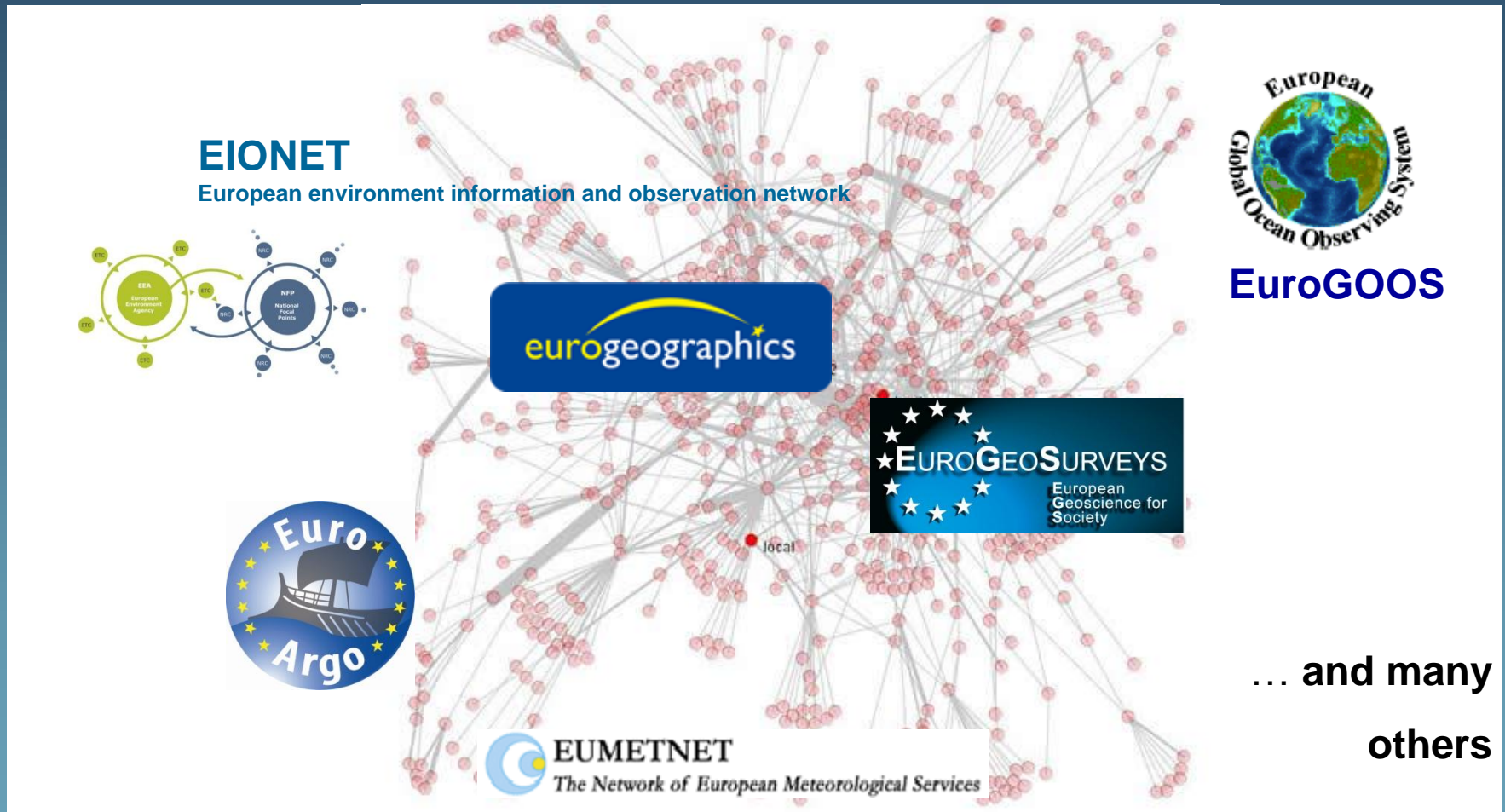
## Identifying the Gaps








# Coordinating networks: transparency & governance




Resource Center Show: Web Content Only ▼ My Organization Jan Bliki Notifications Help ▼ Sign Out


HOME GALLERY MAP GROUPS MY CONTENT Find maps, applications and more...

**EYE ON EARTH**


A two-way communication platform on the environment which brings together environmental data and scientific information with feedback and observations of millions of ordinary people.

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## Web map services

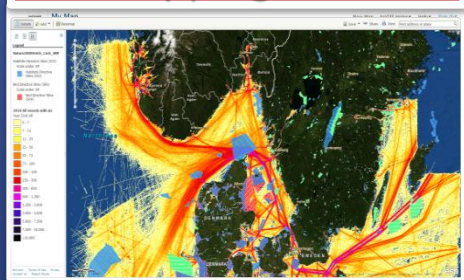
ArcGis – Esri web-services  
WMS – OGC services  
KML – OGC / Google services

## Data

GPX – GPS Exchange format  
KML – Google keyhole file  
CSV – Comma seperated file  
SHP – Esri Shape file

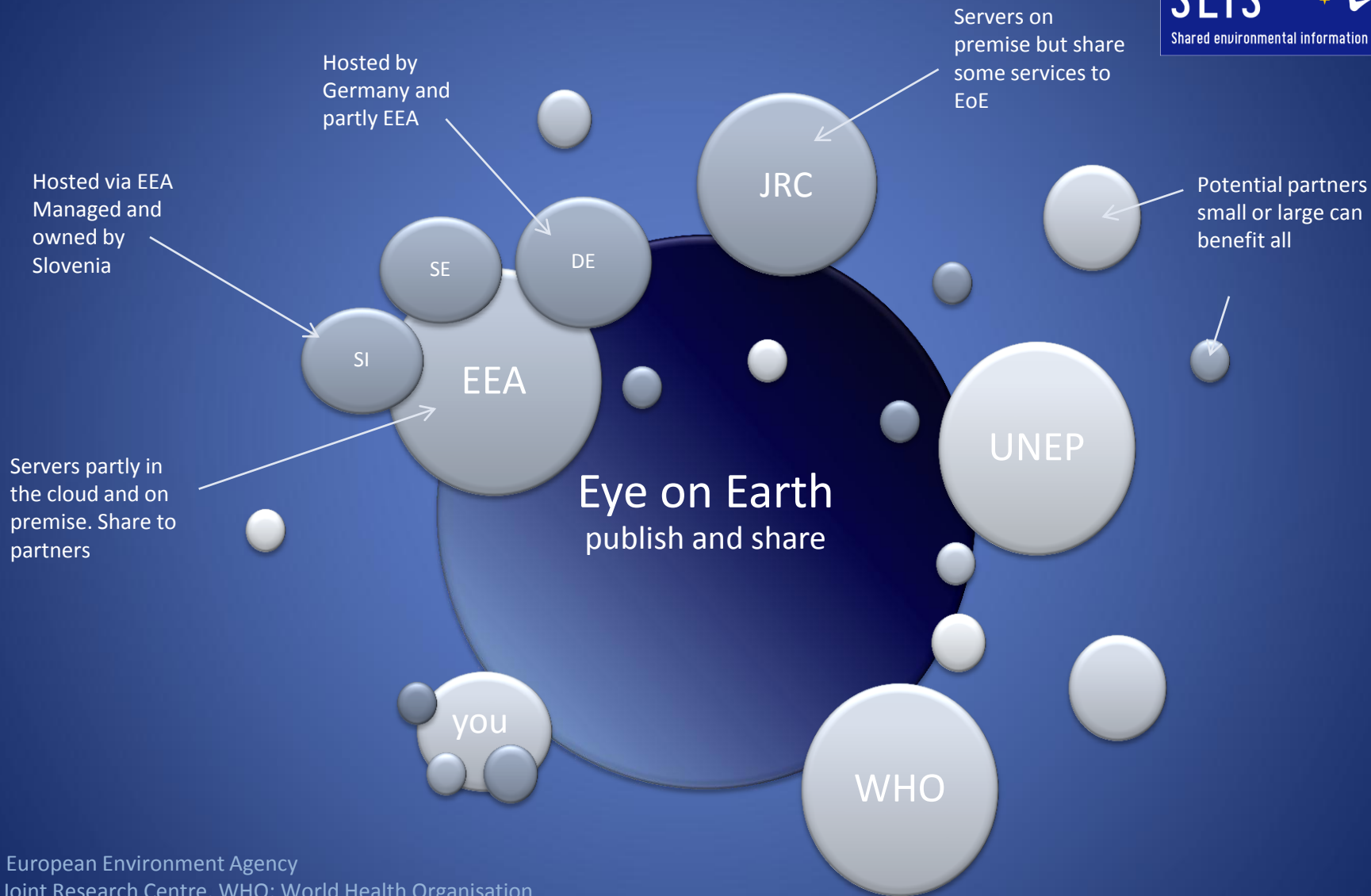


## Mapping tools



## Applications





EEA: European Environment Agency  
 JRC: Joint Research Centre, WHO: World Health Organisation  
 SE : Sweden, SI : Slovenia, DE: Germany  
 (This slide does not demonstrate the true relationships)





# Spatial Data Infrastructures

Публичная кадастровая карта - Windows Internet Explorer

http://maps.rosreestr.ru/Portal/

File Edit View Favorites Tools Help

Search: Публичная кадастровая... eu delegation moscow - Goo... Currency Converter - Yahoo!...

ПОРТАЛ УСЛУГ  
ПУБЛИЧНАЯ КАДАСТРОВАЯ КАРТА

Земельные участки 68 кадастровых округов.  
Общее количество участков: 47 858 025. [Подробнее](#)

Поиск

Введите кадастровый номер или адрес:  
Например: 61.6.10104.12 или 61.6 или 61.6.\*  
Москва, Санкт-Петербург или Краснодар

Расширенный поиск

Найти

Найден 1 участок

1. 77:01:0002021:00007  
Г. Москва пл Болотная 14

Земельный участок 77:01:0002021:00007

Фактическое использование:  
Площадь по документу: 18 264.00 кв. м.  
Кадастровая стоимость: 1 427 908 377.12 руб.

На карте Информация Кто обслуживает? Услуги

Легенда Управление картой

2.0.328.681.1

© Дата+, 2011, © Мосгосреотрест, 2011 | © Росреестр, 2011 | [Соглашение об использовании](#) | [Справка](#)

start Публичная кадастр... Russian Cadastre - W... Astana preparation Side event slides JMC... 15:48

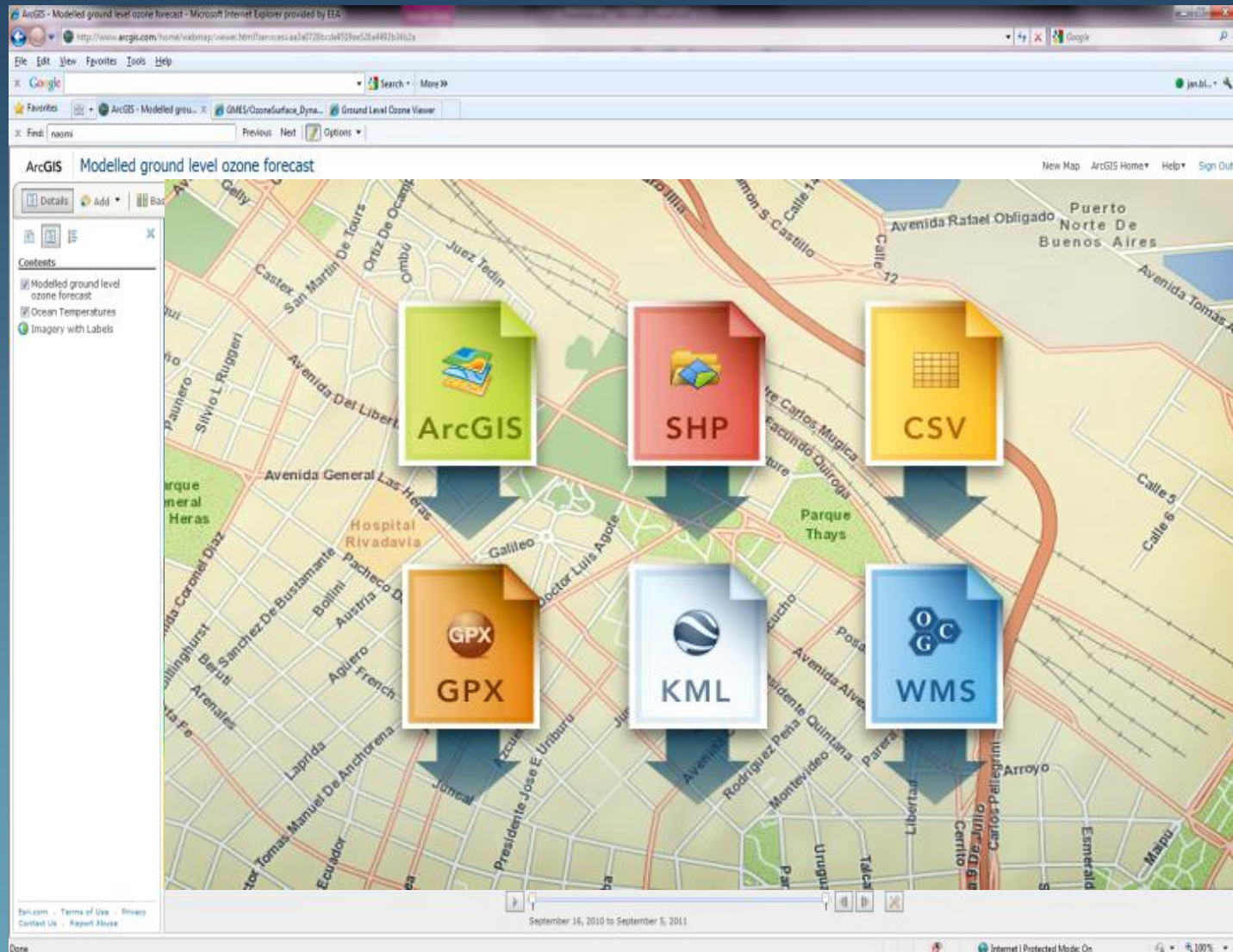


# Integrated monitoring



Source: Olav Rune Godø,  
Institute of Marine Research - Norway









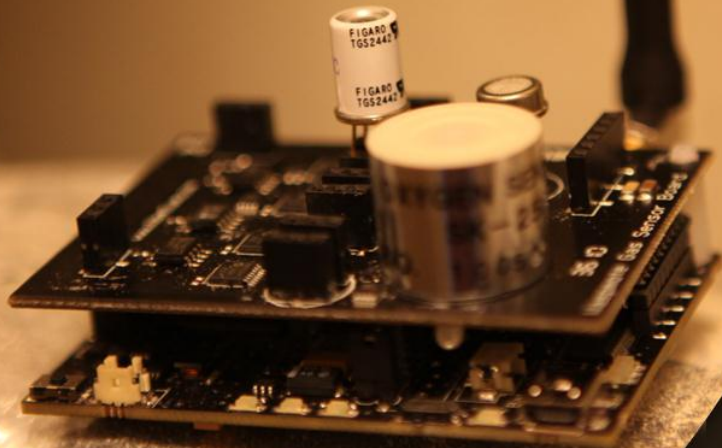
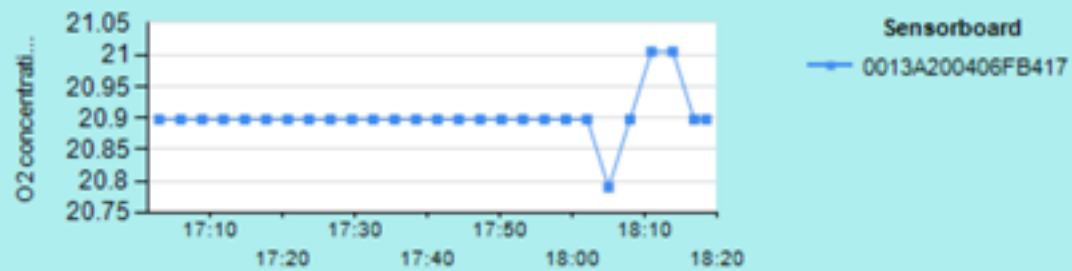


Carbon Monoxide (CO) level

Carbon Dioxide (CO<sub>2</sub>) level

NO<sub>2</sub> level

Oxygen (O<sub>2</sub>) level





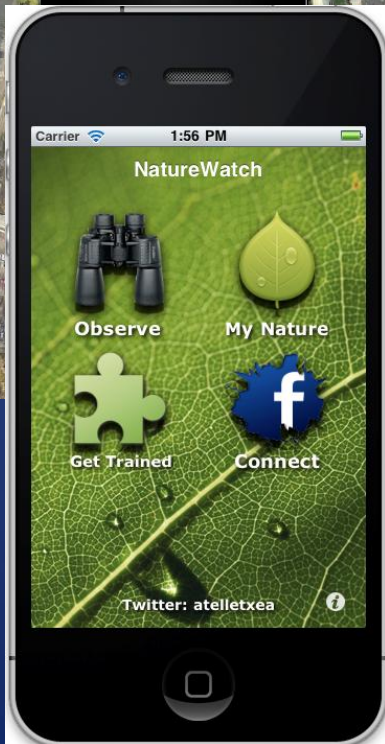
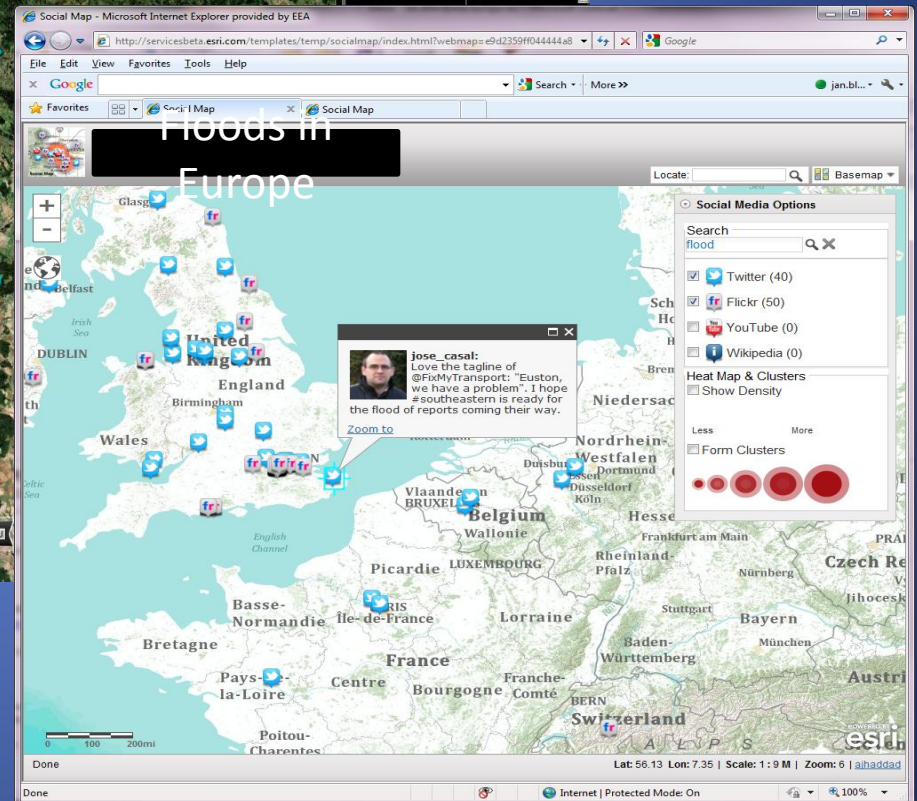
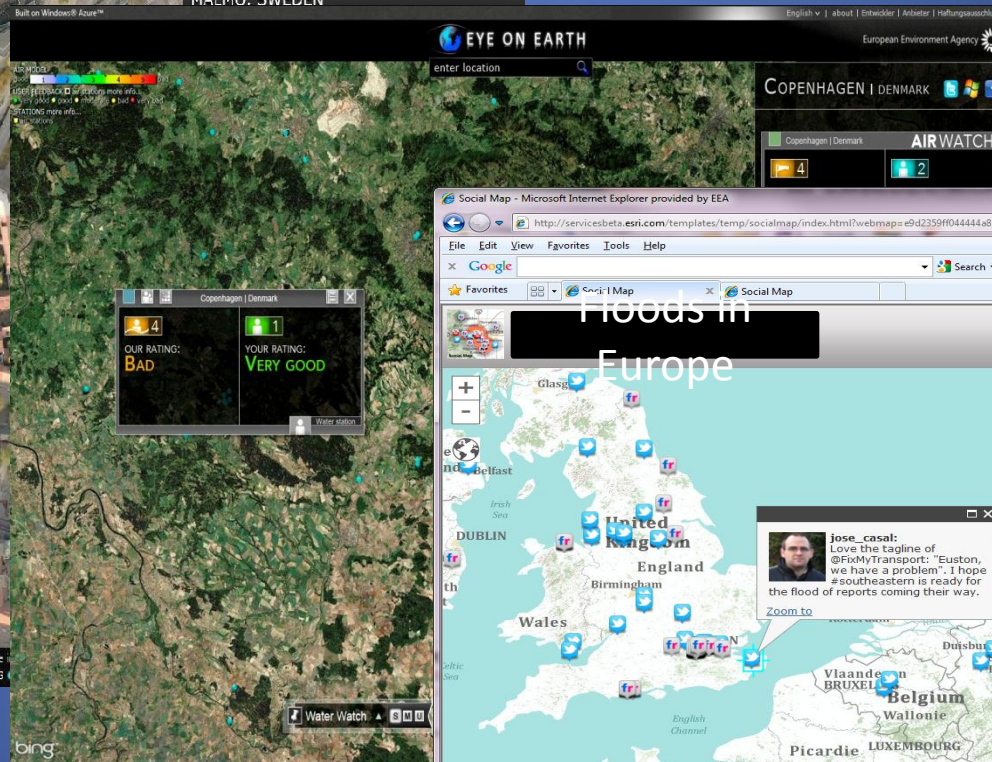
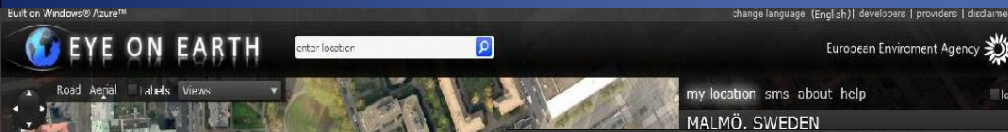






# EYE ON EARTH

# Social media integration











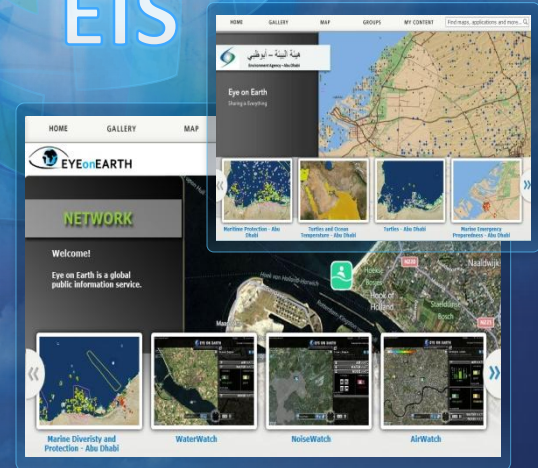
# The Eye on Earth Network

An Environmental Nervous System For Our Planet



Global  
EIS

Maps  
Model Apps  
Data Workflow  
Image<sup>ws</sup>  
ry



*Providing a Systematic Framework*