

UK-EOF Data Solutions Workshop
Coventry 25.06.2009

What is SEIS/GMES/GEOSS

Chris Steenmans – Head of Programme

GMES

INSPIRE

SEIS



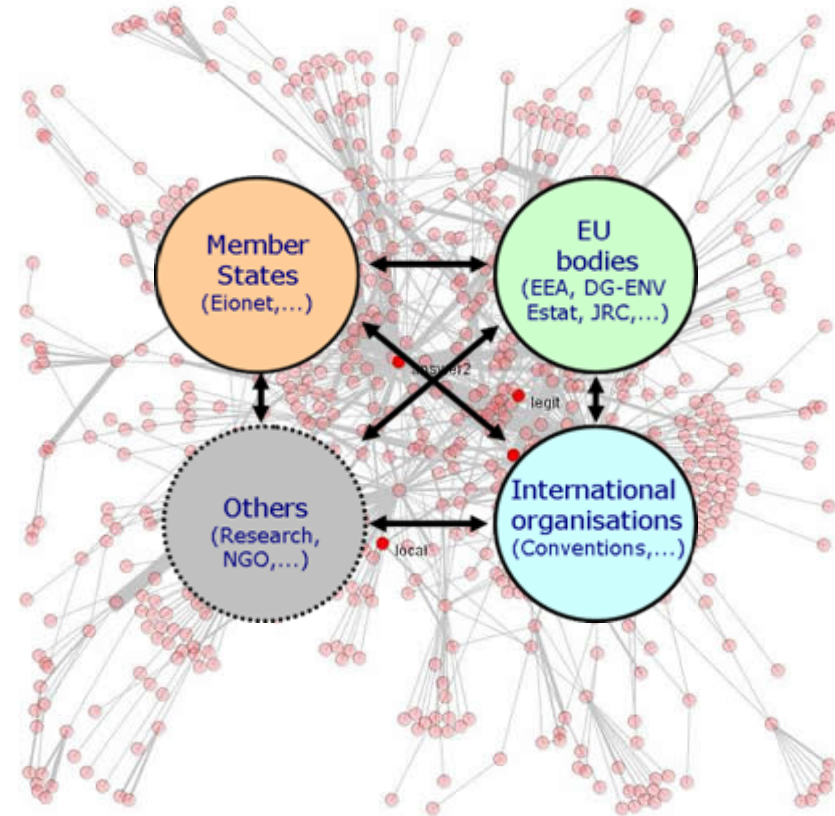
“Better decisions from local to European level need better and more timely information, based on more efficient monitoring and reporting systems”

S Dimas, Feb 2008



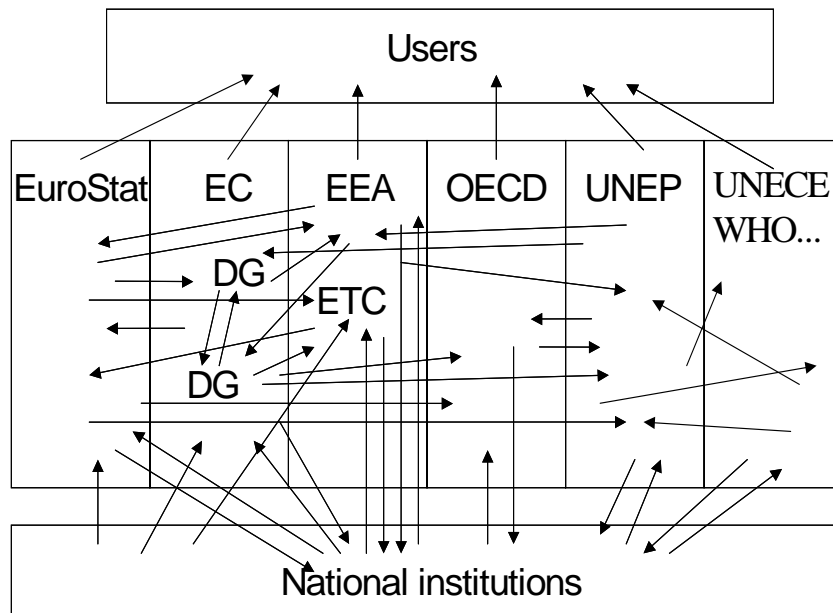
What is SEIS?

- ✓ **A collaborative initiative** of the European Commission, EEA and Member States
- ✓ Aiming at a modern system for **organising environmental information**
- ✓ **Overall objective:** improve knowledge base for environmental policy; reduce administrative burden



Why SEIS is needed?

- ✓ International Conventions and EU environmental legislation: main drive for collection of environmental data
- ✓ A wealth of information is collected but:



Source: EEA, 1999

- ☹️ Fragmented reporting systems
- ☹️ Shortcomings in relation to timeliness, availability, reliability, relevance of information
- ☹️ Shortcomings in ability to turn data into policy-relevant information
- ☹️ Underexploited opportunities offered by modern technologies
- ☹️ Many initiatives and processes in the right direction, but inadequate co-ordination

- 👍 **Better regulation, better policy**
 - More consistent and integrated input from Member States
- 👍 **Increased flexibility and greater use of data**
 - More efficient trans boundary & EU-level analyses
- 👍 **Simplification and efficiency**
 - Streamlining of data flows
 - Reduction in administrative burden and costs
- 👍 **Empowering citizens**
 - Widespread availability of information
- 👍 **Promoting Europe globally**
 - Better profile for the EU in various global fora
- 👍 **Boosting innovation and intelligent e-Services**
 - eEurope, eGovernment, eEnvironment

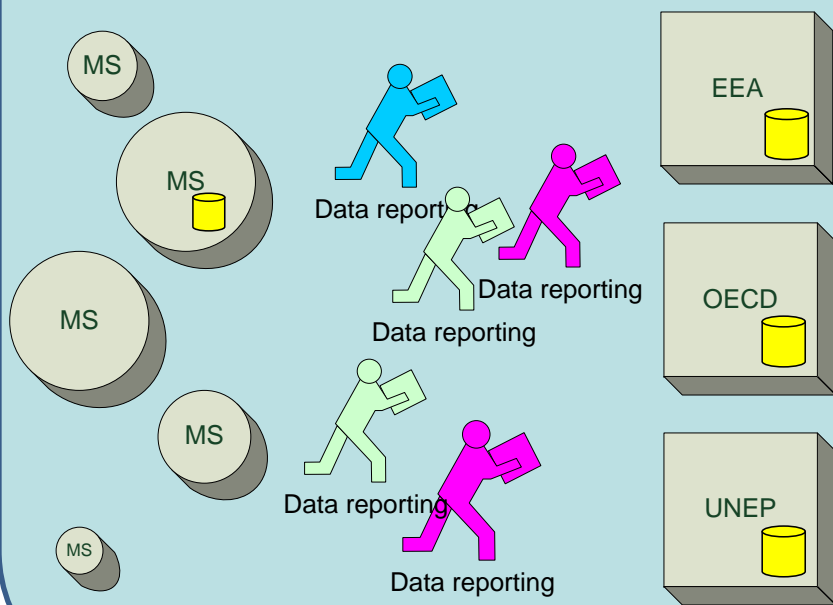
SEIS vision

From Reporting to Online Services

The current data flows

Member states

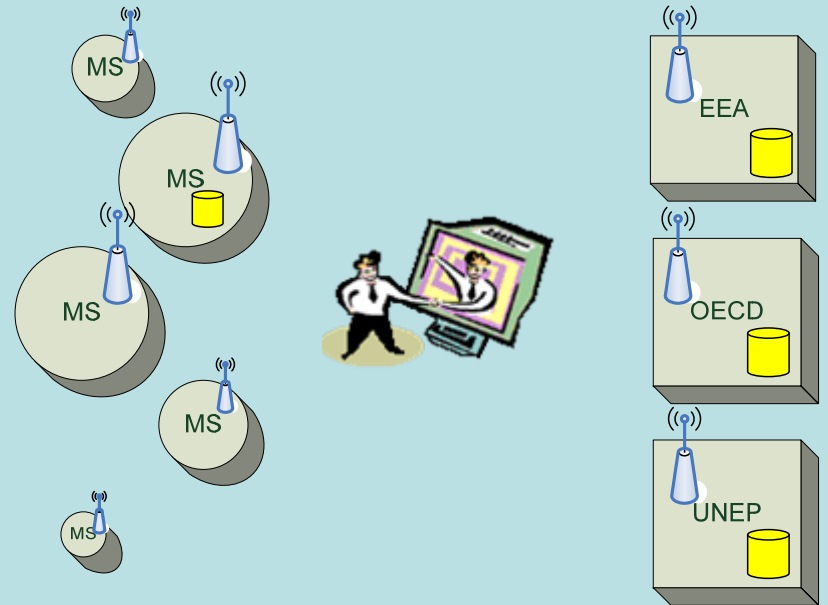
Organisations



Live Information Systems

Member states

Organisations



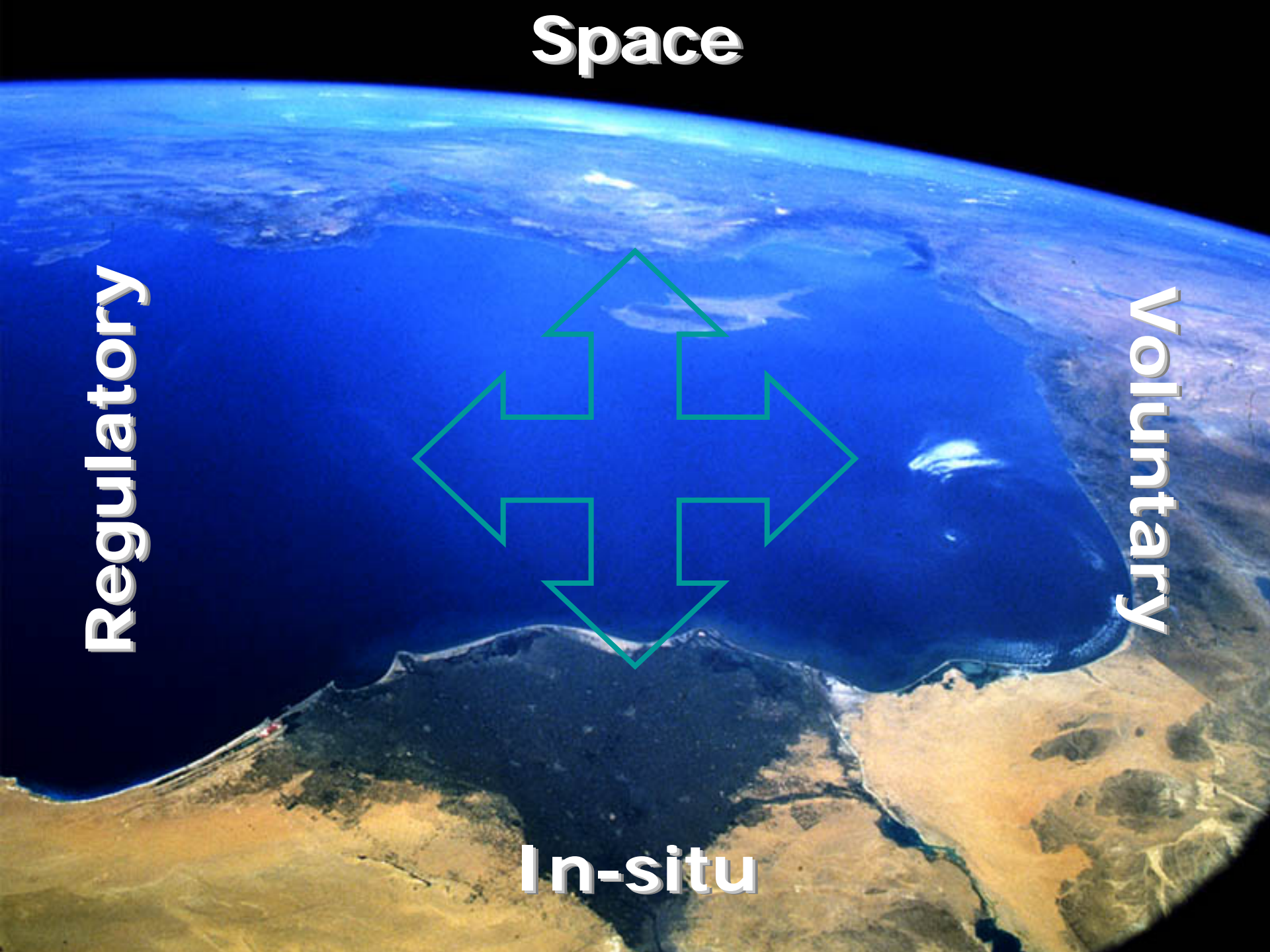
Space

Regulatory

Voluntary

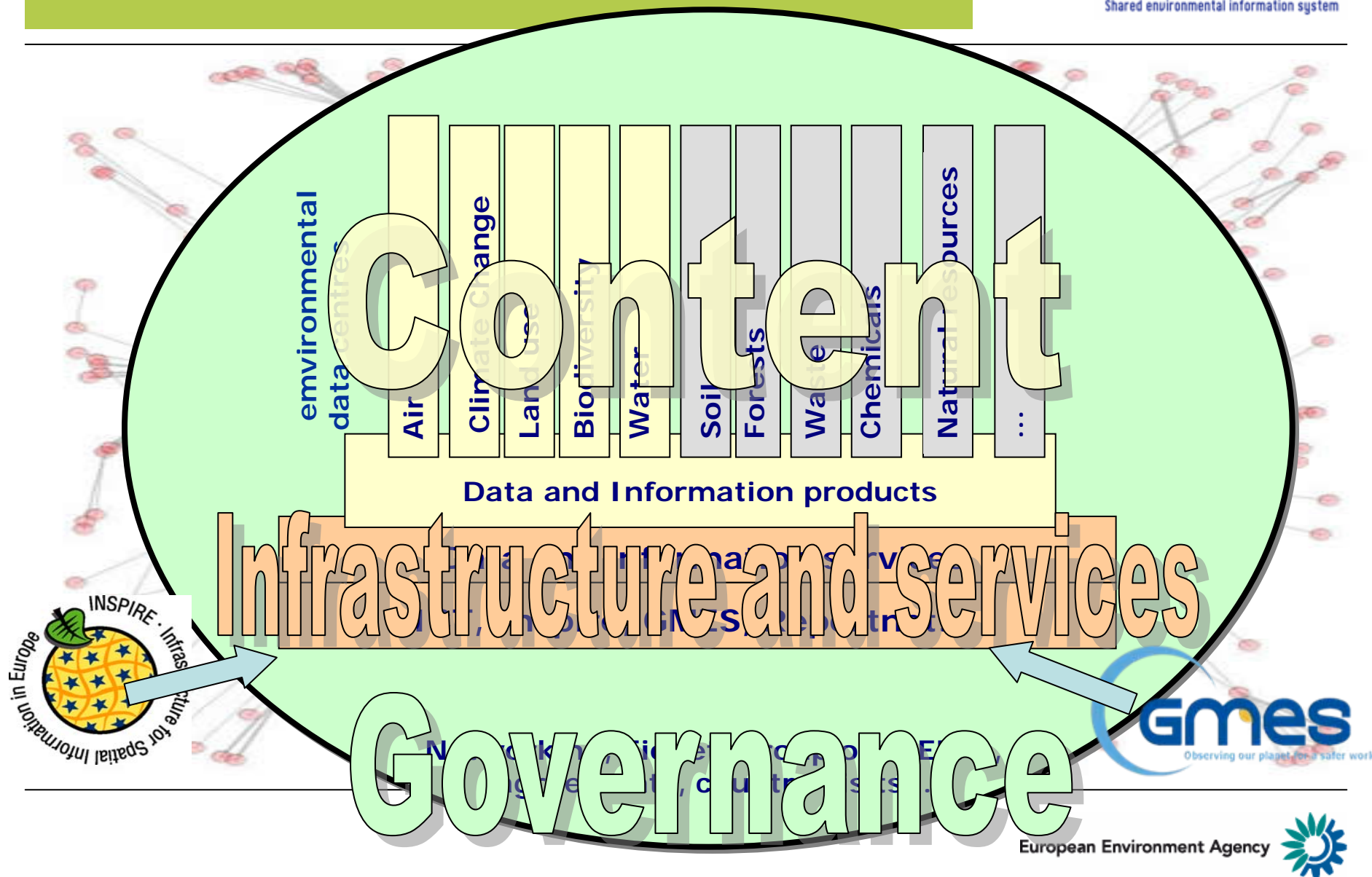


In-situ



information should be

- managed as **close** as possible to its source;
- collected **once**, and shared with others for many purposes;
- readily **available** and **easy accessible**
- accessible to enable users to make **comparisons** at the appropriate geographical scale
- fully available to the general **public** at national level in the relevant **national language(s)**
- supported through common, **free open software standards**



SEIS pilot air quality



ABOUT SOE NORWAY CONTACT US NORWEGIAN

State of Environment Norway

Topics Goals and indicators Maps and data

Air pollution Animals and plants Climate Cultural heritage Hazardous chemicals International Nature and land use Noise Outdoor recreation Polar regions Radioactive contamination Waste Water pollution

Ground-level ozone

Ozone in the upper atmosphere protects the earth against dangerous radiation from the sun. Ground-level ozone, on the other hand, is dangerous to both people and the environment if concentrations rise too high. Concentrations of ground-level ozone are lower in Norway than in central and southern Europe. In Norway ground-level ozone may exceed recommended limit values during spring and early in the summer.

- State: Southern Norway most affected
- Impact: Effects on health and vegetation
- Pressure: Transport and petroleum industry important sources
- Response: International cooperation to reduce emissions

Southern Norway most affected

Ground-level ozone is formed from nitrogen oxides (NOx) and volatile organic compounds (VOCs) when they are exposed to sunlight. In the last hundred years, the concentration of ground-level ozone has doubled in Europe. The highest ozone concentrations are found in countries in central and southern Europe. NOx and VOC emissions are also highest in these countries.

Tuesday, May 26, 2009 at 16:00 Local time

Bookmark | ? Help

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European Environment

Home Products

Welcome Map

Place name:
Enter Place name

Country:
Enter Country

Qualitat de l'aire a Andorra

Nivells d'ocó de polsols veïns

SEIS pilot Bathing Water Eye on Earth - Water Watch

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Water Watch

Search

Show this on the map

EEA water quality rating



User rating



Help

To view and rate quality of a bathing site:

- Zoom in to the selected bathing site or type name into search bar
- If cluster symbol is displayed, zoom in further to individual representation
- Click on icon to display historical data and open pop-up rating system
- Click on other icons, for detail view on other locations

Map interface showing a coastal area with several bathing sites marked by icons. A pop-up window for 'CRISTOLU AXEDU' is open, displaying a satellite image and a 'Rate & Comment' section. Navigation arrows are overlaid on the map: a cyan arrow points to the search bar, a blue arrow points to the map controls, an orange arrow points to the 'Near real time data' table, and a brown arrow points to the 'Historical data' table.

Authentication

You are logged in as:
eyeonearth.
[Logout](#)

Near real time data

Date	Water quality	User rating
2009		

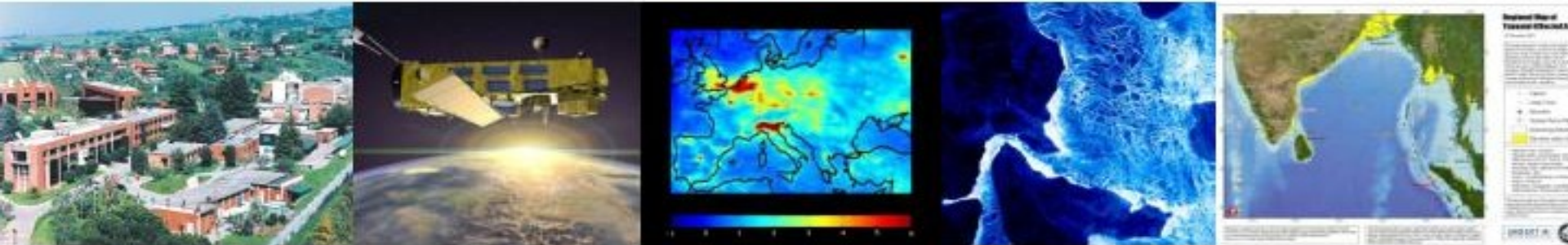
Historical data

Year	EEA Rating	User Rating
2008		(2)
2007		
2006		
2005		
2004		
2003		

User comments

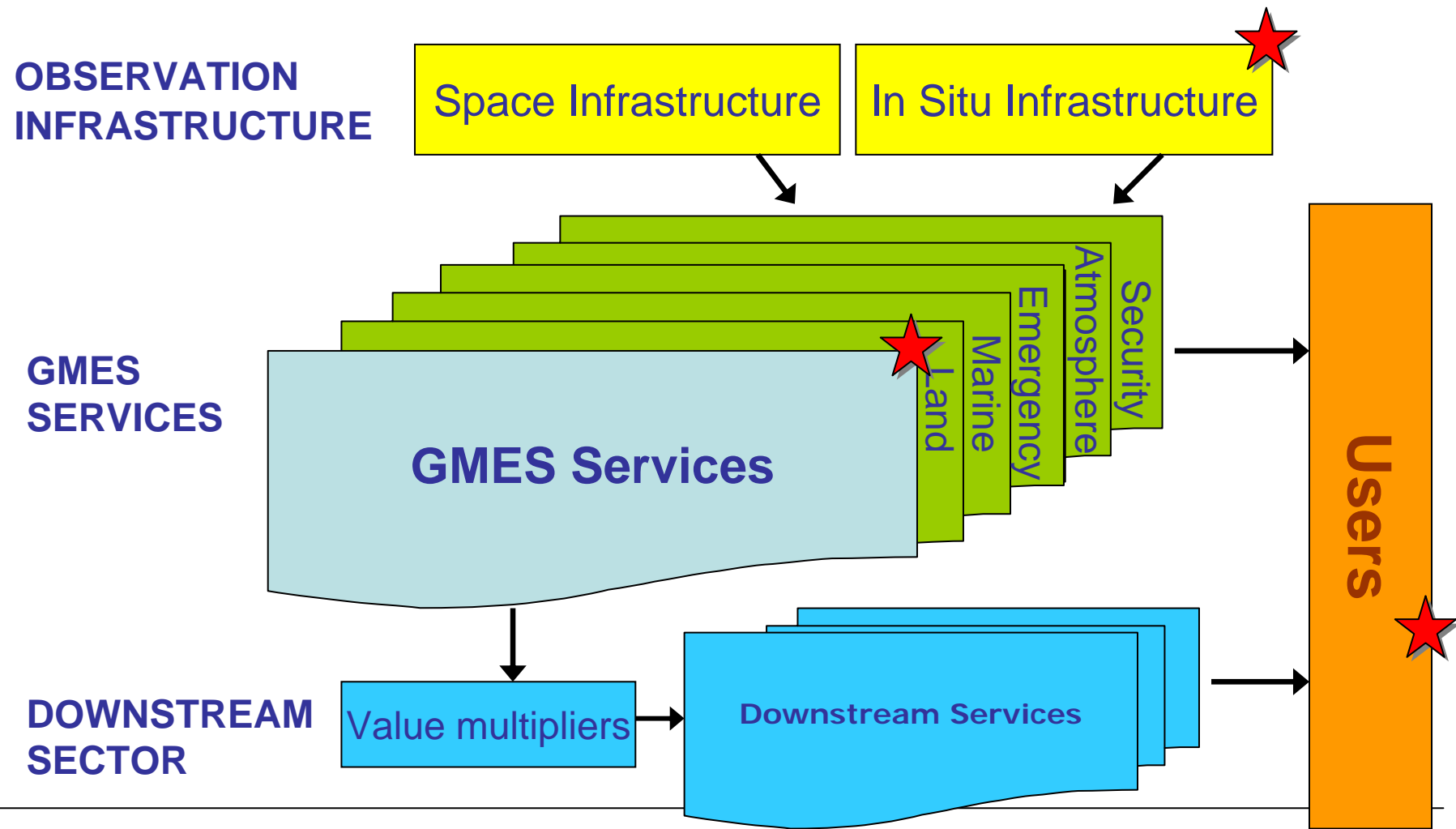
No comments

Global Monitoring for Environment and Security

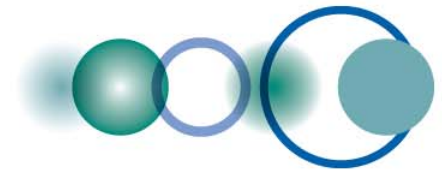


- EU-led initiative for an **autonomous** and **operational** European Earth observation capacity
- EU Need for information in support of:
 - **European policies**: environment & climate change, CAP, Maritime Policy, CFSP/ESDP...
 - **EU international commitments**: protocols and conventions (eg Kyoto, Montreal, CLRTAP..)
 - **National or regional «adaptations»** of these policies or commitments
- **GMES aims to provide relevant information**
 - Not only to **policy-makers**
 - But also many **other users** (national authorities/agencies, private industry, researchers, European citizen..)

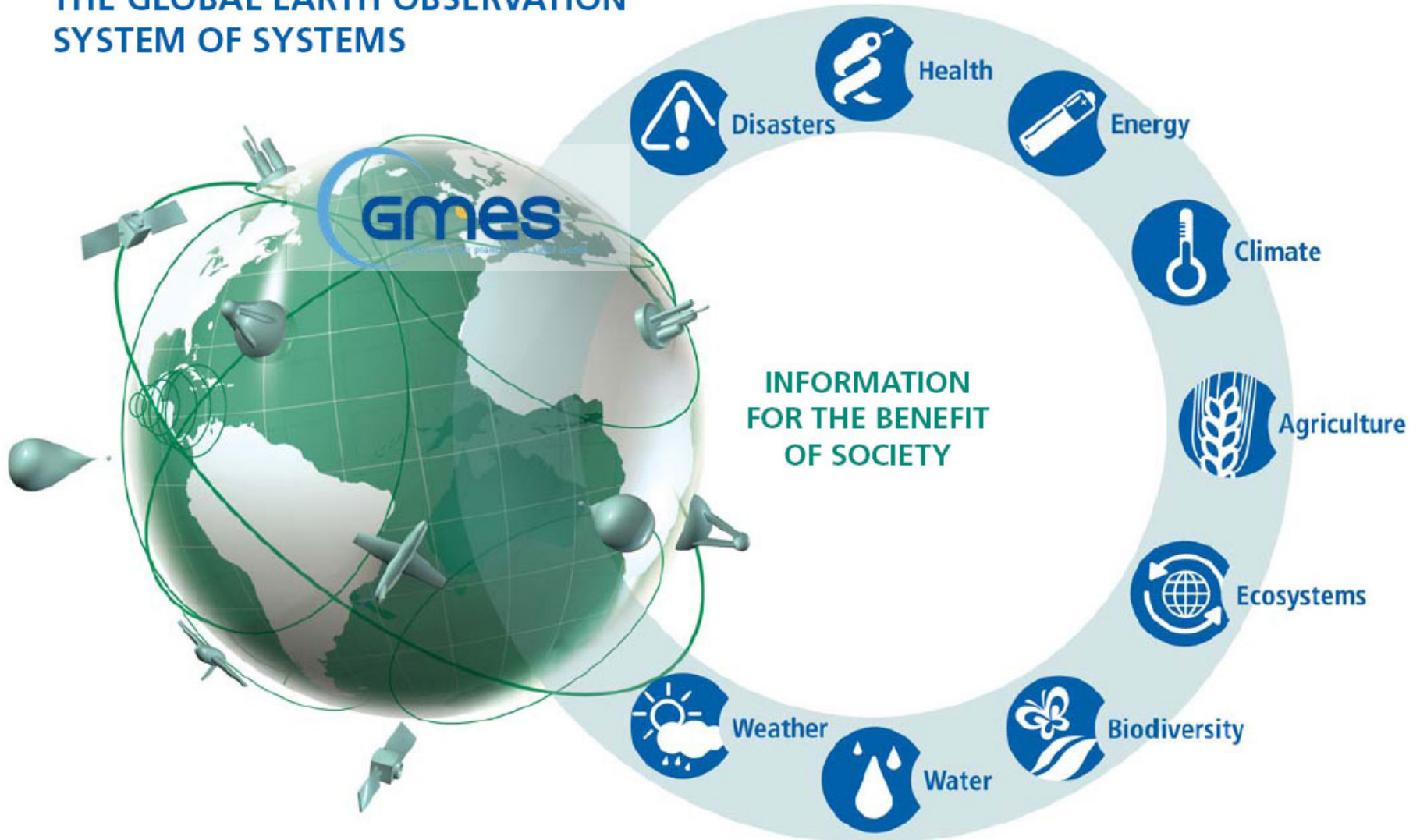
GMES architecture



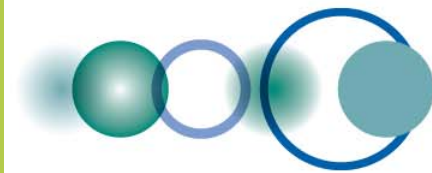
- **Legislative proposal** for EU Earth observation programme and its initial operations 2011-2013
- The **GMES financing needs** will be subject to an analysis led by the EU.
 - For the period 2011–2013, the constraints of the existing EU budget will be taken into account.
 - Decisions on funding and organisational arrangements after 2013 will have to be determined as part of the next multiannual financial framework of the EU.
- The Commission will propose **interim governance** arrangements



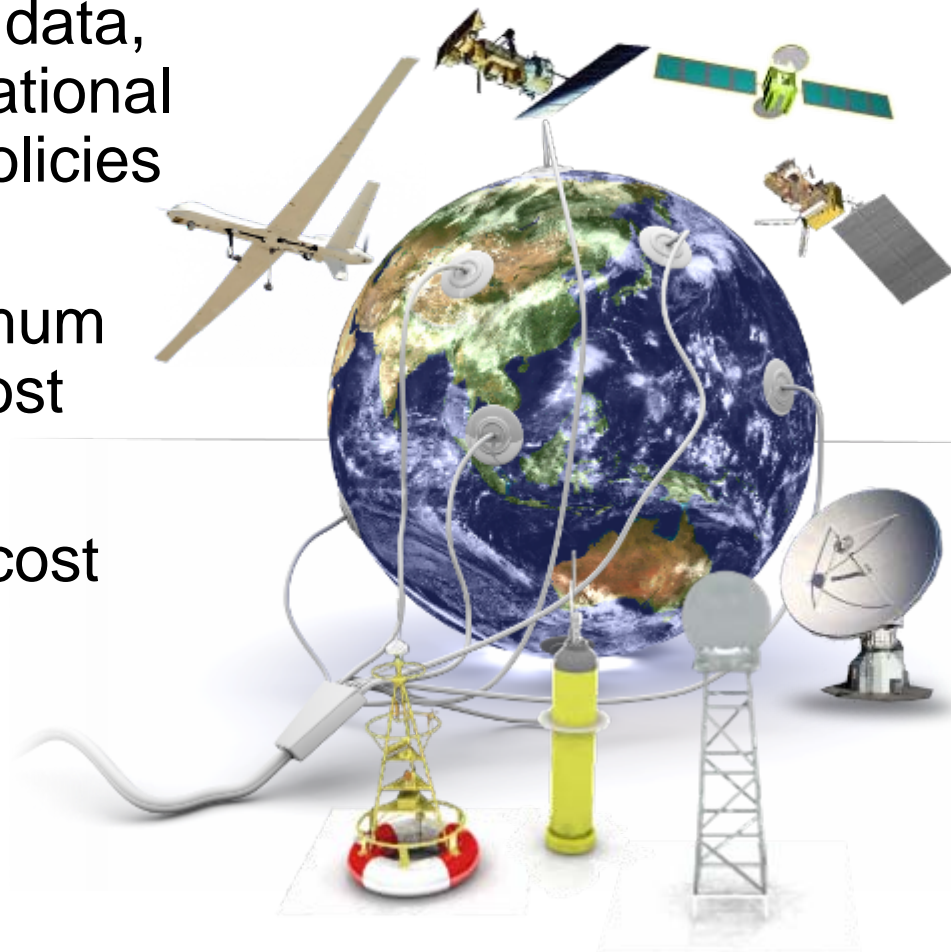
THE GLOBAL EARTH OBSERVATION SYSTEM OF SYSTEMS



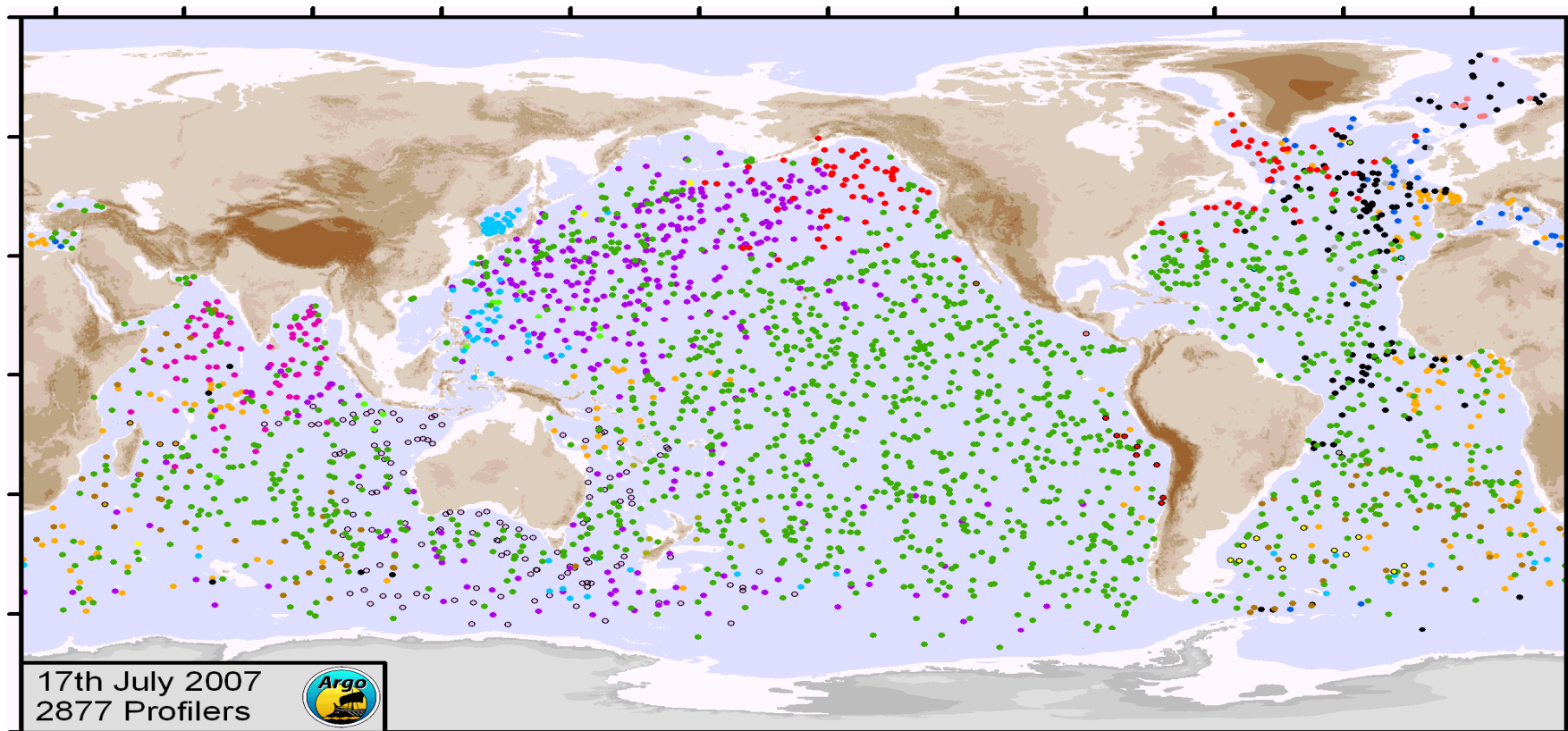
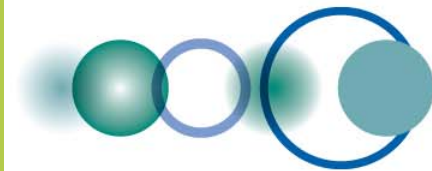
GEO Data Sharing Principles



- Full and open exchange of data, recognizing relevant international instruments and national policies
- Data and products at minimum time delay and minimum cost
- Free of charge or minimal cost for research and education



Long term sustainability e.g. ARGO



● Argentina (12)	● Costa Rica (1)	● Japan (378)	● Norway (8)
● Australia (136)	● European Union (31)	● Korea, Rep. of (102)	● Russian Federation (3)
● Brazil (2)	● France (172)	● Mauritius (4)	● Spain (3)
● Canada (98)	● Germany (126)	● Mexico (1)	● United Kingdom (92)
● Chile (8)	● India (77)	● Netherlands (10)	● United States (1593)
● China (12)	● Ireland (1)	● New Zealand (7)	

Integrating global citizen observations

Audubon

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Great Backyard Bird Count

Donate

Welcome

Kids Art Exhibit

NORTHERN CARDINAL

Once again, the most frequently spotted species in 2008!

Count For Fun, Count For the Future: The 12th Annual Great Backyard Bird Count is Feb 13-16th!

and authorities - although confidential observations can only be used by the data provider, authorized persons within the relevant organisations and the Threatened Species Unit. All observations are published first and are verified later by authorized persons within the organisations.

Number of Sightings by Report System

	In Total	This year	Yesterday	Today	Tot %
Birds	14 992 692	1 409 341	12 817	2 733	81.1%
Plants and Fungi	2 455 408	180 382	1 217	500	13.3%
Invertebrates	1 010 156	257 247	442	48	5.5%
Vertebrates	19 569	4 555	28	2	0.1%
Fishes	2 759	802	-	-	0.0%
Marine invertebrates	7 126	1 824	-	-	0.0%
Summa	18 484 427	1 854 151	14 504	3 283	100%

- Show recent system use
- Reporting system for Birds**
In co-operation with the Swedish Ornithological Society
Opened summer 2000
 - Reporting system for Vascular Plants and Fungi**
In co-operation with the Swedish Botanical Society and Swedish Mycological Society.
Opened autumn 2003/summer 2007
 - Reporting system for Terrestrial and Limnic Invertebrates**
In co-operation with the Swedish Entomological Society
Opened autumn 2003/autumn 2006
 - Reporting system for Mammals and Reptiles**
For all Mammals, Amphibians and Reptiles
Opened spring 2007
 - Reporting system for Fish**
For both Limnic and Marine Fish
Opened spring 2007
 - Reporting system for Marine Invertebrates**
In co-operation with Göteborgs Naturhistoriska Museum
Opened autumn 2007

Search in all databases

Swedish species atlas



Globe At Night 2006-2009

GNM | Mapping | Map Tools

Limiting Magnitude

- No Green Stars
- Mag 2 (Bright stars)
- Mag 3
- Mag 4
- Mag 5
- Mag 6
- Mag 7 (Dark stars)

featuring peir

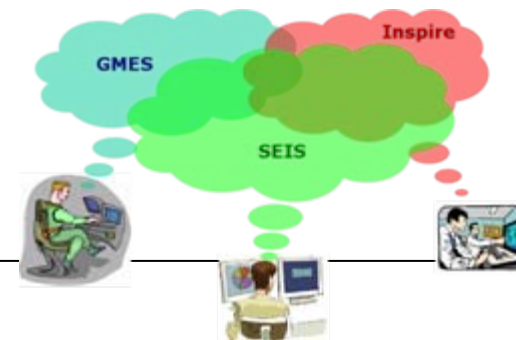
wellbeing | health | urban planning | public safety | community | fitness



ArcticObserving.org

IPY Workshops on Sustaining Arctic Observing Networks

Different focus ?



INSPIRE	GMES	SEIS
Content	Content	Content
Infra structure	Infra structure	Infra structure
Services	Services	Services
Directive	Regulation	Regulation?
Business	Business	Business



Priorities for SEIS Implementation: 12 key elements (1)

1. **Political commitment** by a wide range of stakeholders
2. **INSPIRE/GMES/SEIS** to be mutually supportive
3. **Legislative / non-legislative actions** to reform environmental reporting
4. Accompanying **streamlining/modernisation efforts** in thematic environmental legislation
5. **Promote streamlining/modernisation/co-ordination** with international reporting obligations
6. **Improve prioritisation of data/information needs**

Priorities for SEIS Implementation: 12 key elements (2)



7. SEIS centre piece of EEA strategy
8. Assessment of feasibility of harmonisation/co-ordination of monitoring systems
9. Adequate use of existing financial instruments (e.g. Research, LIFE+, CIP)
10. Promoting SEIS in third countries
11. Addressing business model / data policy aspects
12. Defining a communication strategy

Thank you!

