

Report from
Parallel thematic session:
Marine, Atmosphere, Climate

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Marine, Atmosphere, Climate

- Very interesting presentations, lots of “biodiversity” (broad scope)
- M.A. & C. have a lot in common:
 - State of the atmosphere/chemical weather/air quality defines the environment we live in together with sea defines the climate (plus input from land)
- GMES, by looking at the different „Earth compartments“, addresses global challenges, e.g. CC, natural disasters etc..

many different aspects raised in presentations

→ feedback arranged along workshop objectives

IMPLEMENTATION: top down & bottom up

- Partnership between Member States & Commission, joint commitment to move ahead
- Integration of European & national capacities

→ We have good assets in Europe at all levels we should build on

One example for European-level assets: EUMETSAT SAFs

- Dedicated centers of excellence
- Represent consortia of met services & institutes
- Ground segment: from archiving, validation..to user services
- Involvement in GMES is goal is SAF strategy

ASSETS in Europe

O3-SAF (O3 profiles, trace gases, UV)

Based on GOME2 (time series 2007-2020)

→ monitoring of Ozone hole, AQ, volcanic eruptions

→ Input to MACC; PASODOBLE; EVOSS

H-SAF (soil moisture, precipitation, snow parameters)

→ Support operational hydrology

→ Initiative of PL, HU, SE

Pre-operational or in development

ASSETS in Europe

National capacities, Role of EU12

- BL launches microsatellites, for fires, floods, dust and air pollution,
- Filling gaps with other sensors
- National space programme in the planning

Challenge:

Can we optimize and push forward the benefits of GMES along with a national/regional involvement and capacity?

MONITORING

Georgieva: Need for good data to support policies (“Best monitoring, best policies”)

e.g. Monitoring the Black Sea

- Operational Oceanography advanced through myOcean
- myOcean products: SST, ocean color, oil spills

Non-space monitoring („In situ“)

“GMES - it`s more than space" (P. Weissenberg, J. Aschbacher)

GMES Communication 2008 "we care for a safer planet“

e.g. **EuroARGO**

→ Link to EEA GISC-project, building the in situ component
establish service needs (prioritisation), costing, framework for in situ component

- Complexity of monitoring: No one-fits-all solution for in situ

EuroARGO

- Buoys network that measures T & salinity profiles: Unique source of data for the deep part of the ocean
- pan-European network that contributes to global efforts
- responds to global challenges addresses
- sustainability of i/s systems/setting up a governance: → ESFRI roadmap
- Legal status of ERIC (Eur. Res. Infra Consortium)
- contribution of MS with possible European contribution
- BU 6 buoys in Black Sea
- National programmes, e.g. PL

In situ not only "ground truthing" but also assimilation into models

Additional data input to improve our model outputs...

COOPERATION

Multinational cooperation

- E.g. COST Action on chemical weather
 - Exchange data & forecasts, modelling, ensemble modelling,
- Exchange of information with ongoing activities, e.g. EEA and EMEP, and the GEMS/PROMOTE/MACC projects.
 - GMES is a driver („catalysis progress“)

NEIGHBORING COUNTRIES TO COORDINATE (Borissov)

- Getting organised at national level, coordinate with others
- "regional focus", regional networking
- Enduser at center, help to get the user needs expressed
- → AWARENESS RAISING

Regional cooperation

e.g. Greece

Shared water resources with others,
common risks and disasters → Need for
more (transboundary) cooperation

e.g. BL municipality, flood risk management

Cohesion policies

→ **EU regional funds can be used to this purpose**

- Risk management/prevention measures, especially flood prevention, droughts, landslides
- → data collection, information and know-how exchange, joint management systems

CBC programmes (cross-border cooperation)

- Warning and control systems
- Equipment for measuring & monitoring environmental parameters

DOWNSTREAM (local level)

e.g. Risk Assessment: In GMES usually the large picture, global, but need for RA at smaller scales, we need to link the two,

The management of risks, these are the policy needs, adaptation, emergencies

e.g. User: Air quality health effects, Micro-simulation modelling

- Combining activity based models, emission models, dispersion models
- More efficient exposure reduction policies

e.g. Chemical weather forecasting portal

INTEREST OF USERS (Borissov)

USER NEEDS

- *Clearly the user focus must be maintained and strengthened*
- **Enduser at center, help to get the user needs expressed**

User workshops: listen to their needs

- Environmental info should be made available to all European citizens (PSI directive)
Helps support quality of life and environment
→ **Full & open access to data**

e.g. Desire for Common information space at national level, with sat, in situ and other data for modelling the possible risks

AWARENESS

Building Human Capacity in GMES

- Capacity building important on the ground
- We have heard how they do it in → Sofia university!!!

Training: Oil spills in Black Sea, training and R&D to exploit sat images (SAR, optical)

- Need researchers know-how to build capacity to understand sat data

We need trained, mature, aware endusers....

- Awareness of public actors needs improvement (Greece)

Final Messages

- We have assets at all levels in Europe, need to bring it together
- GMES has three components that require building
- Empowering the user is vital: regional networking and awareness raising should help, open access to data is needed
- Many activities ongoing in EU12: More potential and lots of interest here

OPERATIONS

- Research-> preparation-> operation
- There is progress in GMES, services being developed, GMES goes on

INSPIRE & GMES

- Mutually supporting initiatives
- Common reference bases, data collection and availability, based on user needs

Avoiding duplication

- INSPIRE does not collect data, only addresses publicly-held data
- It does provide access to data, data sharing – supports GMES,
- NRT a problem, timelag a problem,
- GMES will provide data that must be compliant
- GMES to do actions if clear European value and gaps