

6TH GEO EUROPEAN PROJECTS' WORKSHOP



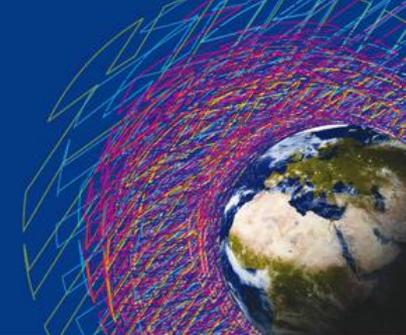
ROME, 7 & 8 MAY 2012



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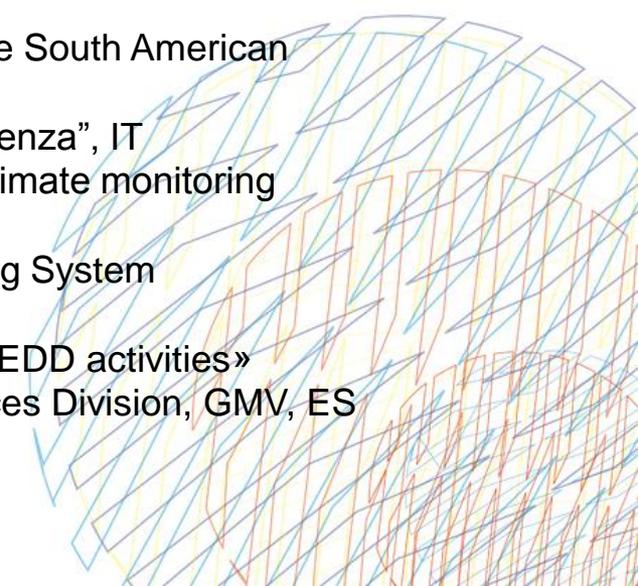
GROUP ON
EARTH OBSERVATIONS

Splinter session: “Weather, Climate & Global Forest Observation”– Conference Room

Chair: Riccardo Valentini, University of Tuscia, IT - Rapporteur: Maria Dalla Costa, ISPRA, IT

Talks:

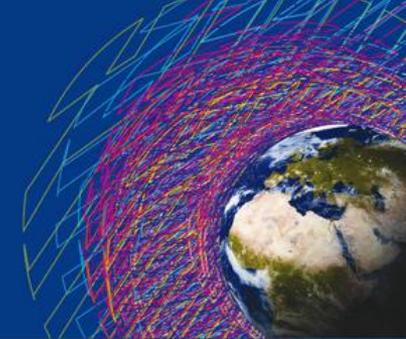
- «Toward a coordinated global carbon observation and analysis system:
The GEOCARBON project»
Antonio Bombelli – CMCC, IT
- Water vapor estimation using different techniques for the South American
region and their comparison
Gabriele Colosimo, Università di Roma “La Sapienza”, IT
- ECMWF’s activities on atmospheric composition and climate monitoring
Manfred Kloeppel, ECMWF
 - «ACTRIS» An Integrated Atmospheric Observing System
Gelsomina Pappalardo, CNR-IMAA, IT
 - «ReCover: Forest Monitoring services in support to REDD activities»
Donata Pedrazzani, Remote Sensing Applications and Services Division, GMV, ES



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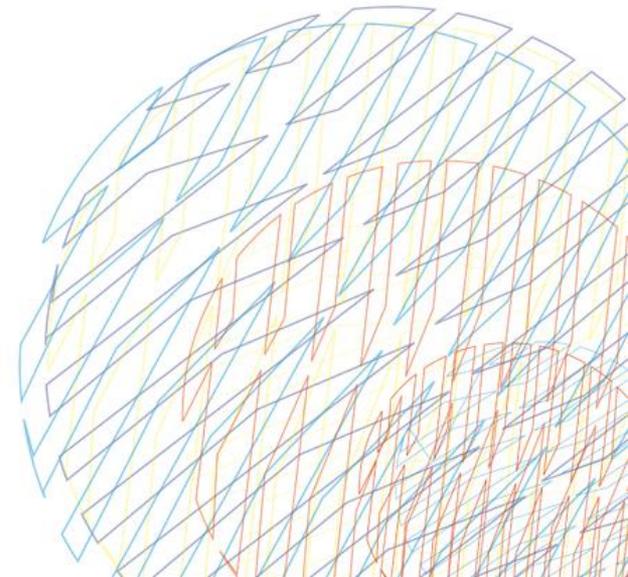


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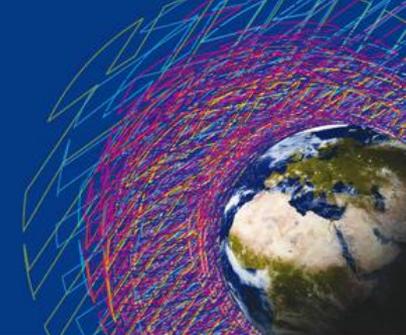
The break out session benefitted from several excellent presentations also from experts currently outside the “GEO Box”, but willing to contribute to the implementation of the GEO 2012-2015 Work Plan.



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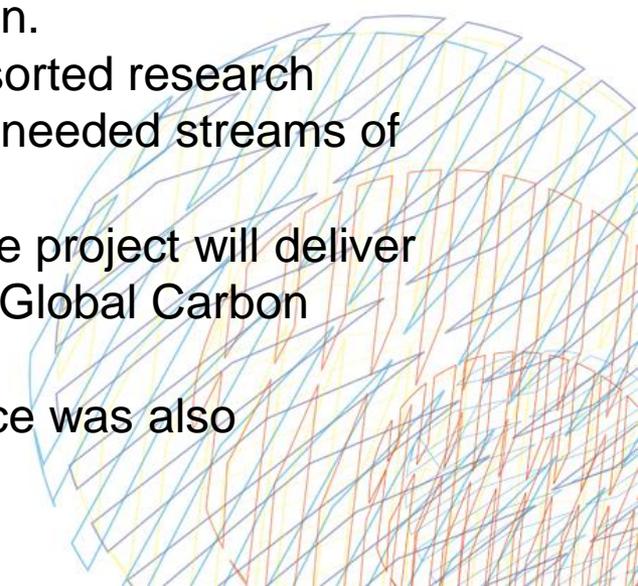


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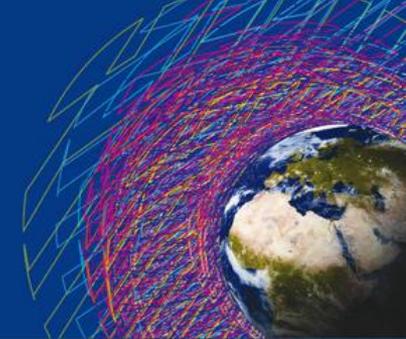
- The **GEOCARBON FP7 project**'s main objective is to coordinate the contribution of European and international leading research institutes **towards the development of an Operational Global Integrated Carbon Observation and Analysis System.**
- It will build upon past and existing European experiences.
- It will improve the strategic approach working towards a truly sustainable global infrastructure with a strong European contribution.
- It is absolutely necessary to move from a sum of assorted research projects to a more comprehensive vision based on the needed streams of data.
- The knowledge of associated costs is crucial and the project will deliver an economic assessment of the value of an enhanced Global Carbon Observing System.
- The need to establish in Europe a GEO Carbon Office was also underlined.



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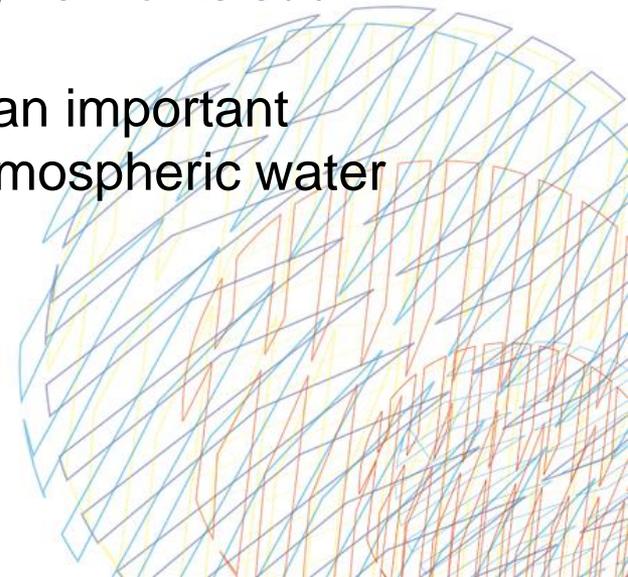


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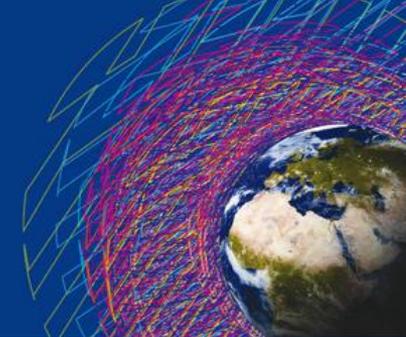
- The work on **Water Vapour estimation using different techniques for the entire South America region**, is carried out within the bilateral agreement between Italy and Argentina
- The work could provide an important addition to the tasks of the GEO WP 2012-2015, by converging into existing networks such as GCOS.
- It was also underlined that GNSS can provide an important additional contribution to the global long term atmospheric water vapour retrieval.



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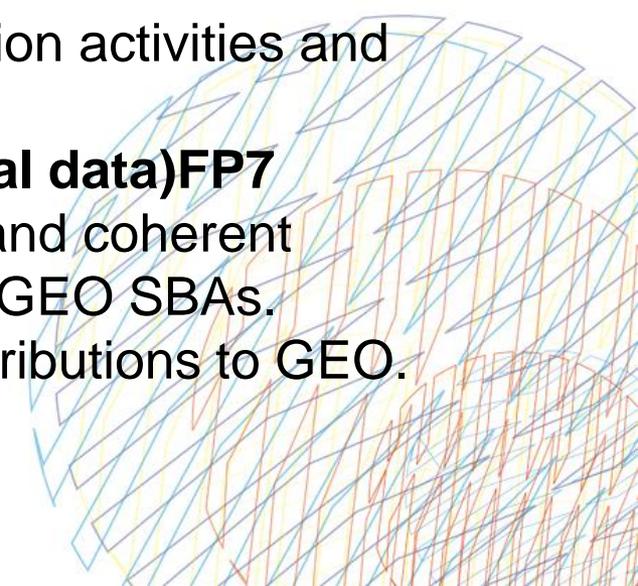


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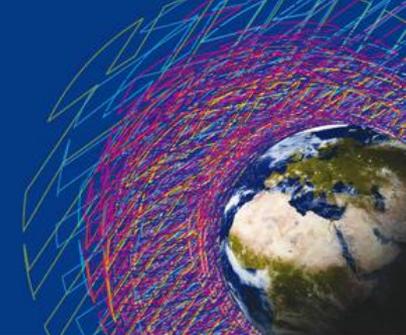
- The **MACC (Monitoring Atmospheric Composition & Climate) FP7 project** constitutes the **pre-operational GMES atmospheric monitoring and forecasting service** and it just entered its second phase until July 2014.
- It is seen as an infrastructure for delivering high quality and open access data streams on atmospheric composition.
- There will be increased coordination of validation activities and increased efforts on estimation of emissions.
- The **ERA-CLIM (Re-analysis of observational data)FP7 Project** produces a complete, comprehensive and coherent record of recent climate for the benefits of most GEO SBAs.
- Both projects provide excellent European contributions to GEO.



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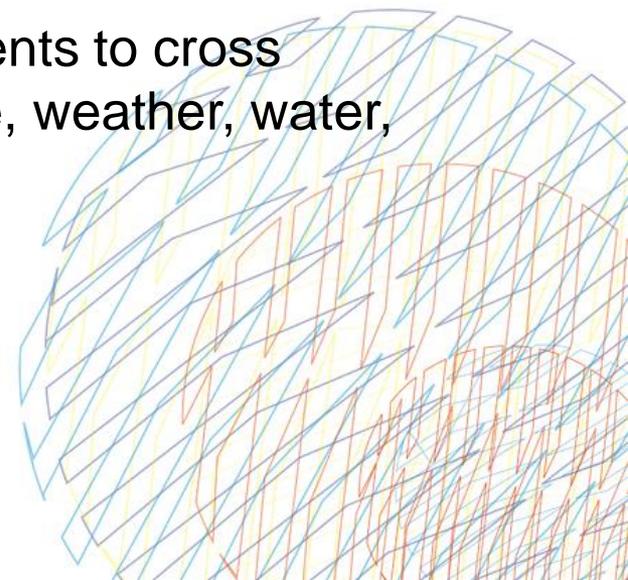
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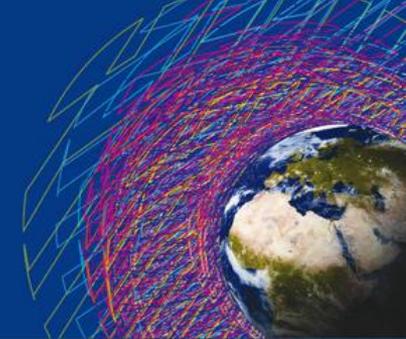
- The **ACTRIS** (**A**erosol, **C**louds, and **T**race gases **R**esearch **I**nfrastructure Network) FP7 Project is building a research infrastructure providing long-term high quality QA/QC and open free access to relevant atmospheric parameters (aerosol, cloud and trace gases).
- It can also contribute for atmospheric components to cross cutting tasks of the GEO WP 2012-2015: climate, weather, water, health and disasters.



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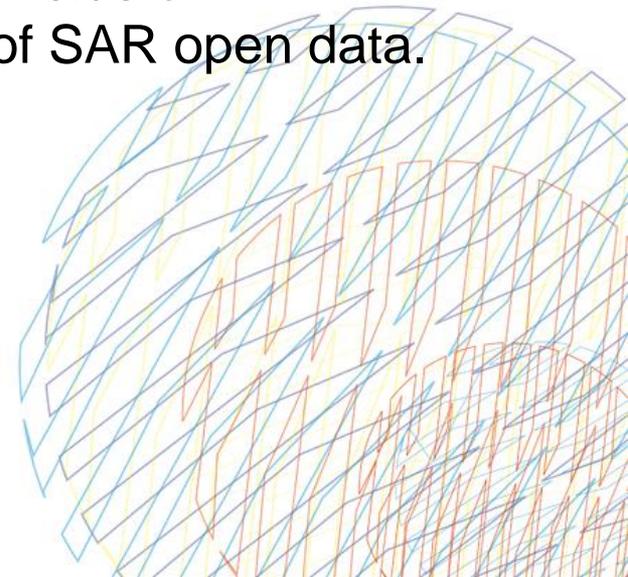


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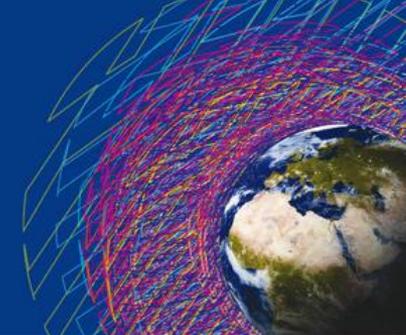
- The **project ReCOVER on Forest Monitoring services** in support to **REDD activities** adds a private player perspective.
- The project is delivering, to well identified users, estimates of carbon biomass baselines.
- The crucial issues still open, true also for other fields of activities, are ground references and continuity of SAR open data.



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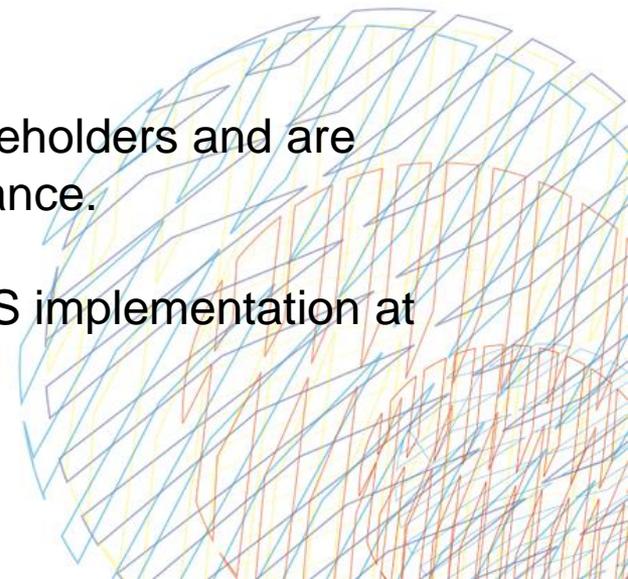
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KEY CONCLUSIONS AND RECCOMENDATIONS

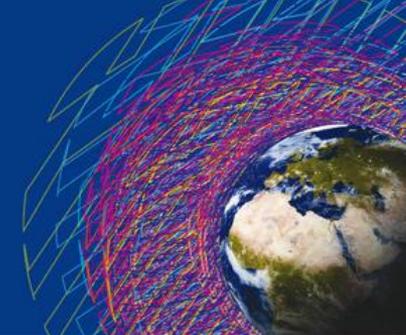
- ❖ European observations systems and research infrastructures, based on a 20 year perspective, are evolving in line with GEO's strategic targets.
- ❖ They will provide a key GEOSS implementation pillar for the delivery of data streams relevant to GEO societal benefit areas.
- ❖ These infrastructures are already involving key stakeholders and are tackling issues such as c/b analysis and legal governance.
- ❖ They could represent a concrete example of GEOSS implementation at European level.
- ❖ European Members need to ensure their support.



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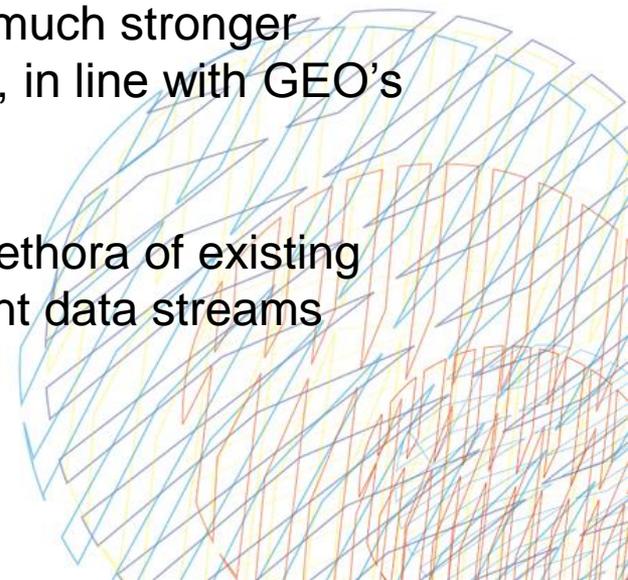


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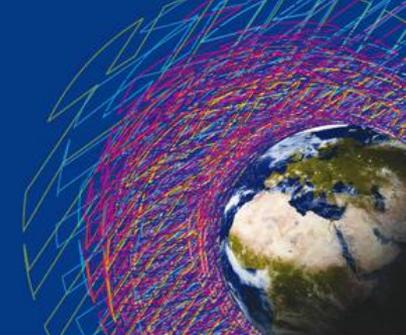
- ❖ A more complete picture is needed on the actual costs and benefits.
- ❖ Research and monitoring infrastructures need to be better coordinated, streamlined, sustainable as well as sustained over time.
- ❖ They are essential to enable Europe to be an even much stronger player in building integrated global observing systems, in line with GEO's objectives up to 2015 and beyond.
- ❖ The Research community fully acknowledges the plethora of existing research projects and initiatives, all generating different data streams directly contributing to the GEO long-term targets.



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- ❖ A recommendation was put forward to the GEO Secretariat to promote, with the support of interested organizations, a **Blueprint of the essential data streams**, with associated cost/benefits.
- ❖ To this end, the recent edition of “*Critical Earth Observation Priorities*” issued by GEO in March 2012 and the recent “*C/B Analysis for GMES*” funded by the EC need to be fully considered along with other relevant studies.
- ❖ The “newcomers” to the GEO Community in the splinter session were encouraged to connect with the GEO Secretariat and with the Task Leads and Contact Points of the relevant tasks of the GEO WP 2012-2015.

