

THE GEOSS PORTFOLIO FOR SCIENCE AND TECHNOLOGY

GEOSS and Science and Technology

GEOSS has a bidirectional relation to science and technology (S&T). On the one hand, GEOSS depends on input from S&T communities and can not evolve to meet rapidly expanding user needs without this input. On the other hand, GEOSS is a unique source of Earth observation data and related products essential for research in all nine of the Societal Benefit Areas (SBAs) of Earth observations. Moreover, the technological challenges posed by the implementation of GEOSS stimulates technology development in many technology communities. GEOSS therefore needs to nurture links to relevant S&T communities, both by promote the use GEOSS in these communities and by encouraging contributions from these communities to GEOSS.

Engaging Science and Technology Communities in GEO

The Road Map of the GEO Science and Technology Committee (STC) includes a number of activity focused on engaging relevant S&T communities in GEOSS. One of these activities aims to promote awareness and benefits of GEOSS in S&T communities with the goal to achieve breakthroughs in the understanding of the Earth's changing environment and the global integrated Earth system. One goal is to encourage the scientific community to collaborate within GEO to address interactions between the components of the global integrated Earth system, and to connect natural and socioeconomic sciences.

A Portfolio Showing GEOSS at Work for Science and Technology

In order to stimulate broader involvement of S&T communities in GEOSS, both as users and contributors, the GEO Task ST-09-02 is compiling a portfolio with examples showing how GEOSS serves S&T communities in their work. This GEOSS portfolio intends to illustrate the broad range of benefits S&T communities might have by relating to GEOSS, be it as credited and valued contributors, users who benefit from the data sharing, or individuals and groups benefiting from stronger links to end users.

Outstanding Projects Illustrating GEOSS' Service for Science and Technology

Suitable examples have been identified in cooperation with GEO Tasks and the provision of the examples through the tasks has been promoted. After careful search through available reports and documentations, more than thirty invitations were extended for the submission of proposals. The proposals received so far have been reviewed by the ST-09-02 Task team based on a pre-defined review form and a quantitative rating system. So far, eight proposals have been selected for inclusion in the portfolio. These examples demonstrate the benefit of GEOSS for S&T communities. GEOSS provides access to many services, data sets and products of value for scientists, researchers and developers. In many cases, new research is enabled and would not be possible without access to the Earth observation products accessible through the GEO portal. The examples show how the products accessible through the GEOSS Common Infrastructure (GCI) work for S&T communities.

A living portfolio of GEOSS

The selected examples constitute the basis of an impressive portfolio demonstrating the benefits of GEOSS for S&T communities. As GEOSS is evolving, this portfolio will change and expand, and so will the individual pieces in the portfolio. Publication of the portfolio therefore needs to be adjustable and to a large extent living. Web presentation is ideal for this purpose. Therefore, at the core of the publication concept for the GEOSS portfolio for S&T is a web page giving access to the portfolio. The Entry page provides information on the motivation and goals of the portfolio, and a separate page provides more background on the relevance of a well-developed relation between GEOSS and S&T communities. For each SBA as well as cross-cutting themes, an overview is given on the available examples in the portfolio, and links to the external pages maintained by the teams behind the examples are provided. Once the portfolio has reached a representative coverage, it is planned to complement this living portfolio with a snapshot in form of a book. Videos and slide shows for the individual

examples will also be added and made available through the web site.

Examples currently in the GEOSS Portfolio for Science and Technology.

SBA	Title	Contact
Water	Pilot Projects for Improved Water Discovery and Quality Assessments	Russel Lefevre
Climate	Capacity building of operational oceanography and climate adaptation	Jun She
Climate	Year of Tropical Convection (YOTC)	Mitchell W. Moncrieff
Ecosystems	enviroGRIDS Building Capacity for a Black Sea Catchment Observation and Assessment System supporting Sustainable Development	Anthony Lehmann
Biodiversity	Protected Areas Monitoring Pilot	Eamonn O Tuama
Agriculture	The Harmonized World Soil Database (HWSD) as a first step towards a Global Soil Information System	Luca Montanarella
Health	Using Earth Observations to Benefit Health	Pai-Yei Whung
Cross-cutting	European Observatory Network	Maureen Pagnani

Initial home page of the GEOSS Portfolio for Science and Technology

The screenshot shows the initial home page of the GEOSS Portfolio for Science and Technology. The browser window title is "GEOSS Portfolio for S+T - SeaMonkey". The address bar shows the URL "http://www.geo-tasks.org/geoss_portfolio/". The page features the GEOSS logo and navigation tabs for various SBA categories: Disasters, Climate, Weather, Water, Health, Agriculture, Biodiversity, Ecosystems, Energy, and Cross-Cutting. The main content area is titled "The GEOSS Portfolio for Science and Technology" and contains a detailed description of the portfolio's purpose and the benefits it provides to science and technology communities. A sidebar on the left lists the current examples in the portfolio, and a "News" section is visible on the right.

Your Contribution Could Make the Portfolio More Representative

The GEOSS portfolio is open for additional examples complementing the currently available examples. Proposals for new examples are invited and will be reviewed by the ST-09-02 Task team on a continuous basis. A template for the submission of proposals is available at <http://www.geo-tasks.org/st0902/> and there under the link 'Status Activities'.

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