



3rd GEOSS  
Science and Technology Workshops  
March 23-25, 2015  
Norfolk, VA, USA

# Navigating Sustainability on a Changing Planet

## Informing Sustainability

2015 is a year of important decisions preparing humanity's Road to Dignity. Our leaders need comprehensive information about the state and trends of the planet, including our global society, to make progress on this road to sustainability and dignity. The workshop will link societal goals to essential variables needed to measure progress towards these goals and discuss research innovations in support of sustainable development.

4th GEOSS  
Science and Technology Workshops  
March 24-26, 2015  
Norfolk, VA, USA

# CONCEPTS TECHNOLOGIES SYSTEMS AND USERS OF THE NEXT GEOSS

## Serving Users with Enhanced Knowledge

A rapidly changing global society increasingly demands knowledge sharing by utilizing innovative services to generate knowledge from existing information. Technological and information revolutions provide a rapidly evolving foundation for satisfying these needs. The workshop aims to link users' information and knowledge needs with emerging technologies introducing novel concepts and workflows for data and model integration and knowledge generation.

## Scope of the Workshops

With this in mind, the 3rd GEOSS S&T Stakeholder Workshop will focus on the knowledge needs of the global and national decision makers to enable progress towards global sustainability on a changing planet. The workshop will use the priorities of the discussion on the SGDs, the preliminary indicators, the grand challenges, and the global boundaries of the SOSH as a starting point in the discussion of the science of sustainability indicators with the goal to derive a comprehensive sustainability metrics. The workshop will address to what extent the current and planned Earth observation systems would allow a quantification of the indicators comprising this metrics.

The 4th GEOSS S&T Stakeholder Workshop will focus on the concepts and technologies that can support a future-oriented system of systems providing observations and practice-relevant knowledge to a wide range of users. Information and knowledge systems are challenged by rapidly developing knowledge needs on the one side and an equally rapid development in data availability not only from traditional sensors but also from a variety of human sensors, the developing Internets of Things and Everything, and the output of increasingly more advanced models.

## Expected Outcomes

Outcomes of the 3rd workshop will include a refined set of global sustainability indicators, the essential variables required to quantify these indicators, and an assessment of the capability of current and future Earth observation systems to provide observations of these essential variable with sufficient spatial and temporal resolution, accuracy, and latency.

Outcomes of the 4th workshop will include position papers on various aspects of the future GEOSS, including the integration of different sensor networks and the handling of the emerging “data super nova.”

## Preparing the Next 10 Years

The Implementation Plan Working Group (IPWG) initiated during the Ministerial Summit in 2014 with the mandate to draft the next 10 Year Implementation Plan for GEOSS has summarized the first “reflective phase” of the IPWG and laid out the scheme for the further development of GEOSS. Both workshops will build on this report and discuss the science and metric needed to achieve the goals indicated in this report.

## Who Should Participate

Scientists and researchers engaged in environmental research supporting the current MDGs and the future SDGs and addressing the grand challenges are key stakeholders of GEOSS. Aligning the governing strategy for the implementation of GEOSS to the needs of these stakeholders has a high priority for GEO. The 3rd workshop will review the support of GEOSS for research on global sustainability and give guidance on how to improve this support.

Participants in the 4th workshop will include technology developers; experts in data management, integration, and analysis; developers of knowledge systems and concepts for the linkage between decision making and knowledge; and user representatives.

## DEADLINES

- Abstracts submission: March 15th, 2015
- Hotel booking at group rate: January 31, 2015
- Pre-registration: March 10th, 2015

## Logistics

The Workshop will take place at the Sheraton Norfolk Waterside Hotel in Norfolk, VA, USA. For more information, visit [http://www.gstss.org/2015\\_Norfolk\\_3rd](http://www.gstss.org/2015_Norfolk_3rd)  
[http://www.gstss.org/2015\\_Norfolk\\_4th](http://www.gstss.org/2015_Norfolk_4th).

