

Enhancing Global Geodetic Observations for Sustainable Development

Anna Riddell (Australia), Laura Sanchez, Detlef Angermann (Germany), Jose Rodriguez (Spain), Martin Sehnal (Austria) and Richard Gross, Allison Craddock (USA), Jose Ferrandiz, Claudia Tocho (Spain), Miyahara Basara (Japan), Georgios Vergos (Greece);

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SUMMARY

The Global Geodetic Observing System (GGOS) represents the international geodetic community's response to the critical need for continuous monitoring of changes in the Earth system. Organized under the umbrella of the International Association of Geodesy (IAG), GGOS plays a vital role in Earth observation by providing the reference frames essential for all position-dependent observations. These reference frames form the foundation for most Earth observations and are crucial for measuring changes in the Earth's shape, size, gravity field, and rotation over time and space. □ GGOS is built upon the Scientific Services of the IAG and their products, which are derived from the operational monitoring of the Earth using both space- and ground-based geodetic techniques. A key objective of GGOS is to create an integrated framework that transitions from providing technique-specific products to delivering combined, integrated products. This approach ensures consistent modelling and interpretation of Earth system processes and interactions, contributing significantly to a coherent Earth observation system. □ This system is essential for enhancing our understanding of global change and its impacts on the environment and society. Achieving this goal requires strong international and multidisciplinary cooperation, focusing on generating and sharing standardized and consistent geodetic data and products. GGOS also aims to identify emerging scientific and societal needs that can be addressed by new geodetic services and products. Additionally, GGOS strives to enhance the visibility of geodesy by improving the accessibility of geodetic observations, information, and products to a wide range of users. □ This presentation will provide an overview of the latest achievements of GGOS, highlight ongoing initiatives, and discuss future directions for enhancing global geodetic observations. By leveraging the power of geodesy, GGOS aims to contribute to a more resilient and sustainable world. □ □

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