

9° SESSION UN-GGIM: Americas

UN Subcommittee on Geodesy (SCoG) Update

Dr. Daniel Roman, Chair, WG ETCB

Session 9: Geodetic Reference Framework for the Americas Working Group



Report filed at UN GGIM 12th Session

- Commended work of SCoG
 - Broad stakeholder engagement
 - Foster greater planning and international coordination
 - Two position papers
 - Sustaining the GGRF
 - Establish need for GGCE
- Global Geodetic Centre of Excellence (GGCE)
 - Facilitate discussions between Germany and UN at Bonn campus
 - Foster international support

United Nations



Economic and Social Council

E/C.20/2022/10/Add.1

Committee of Experts on Global Geospatial Information Management

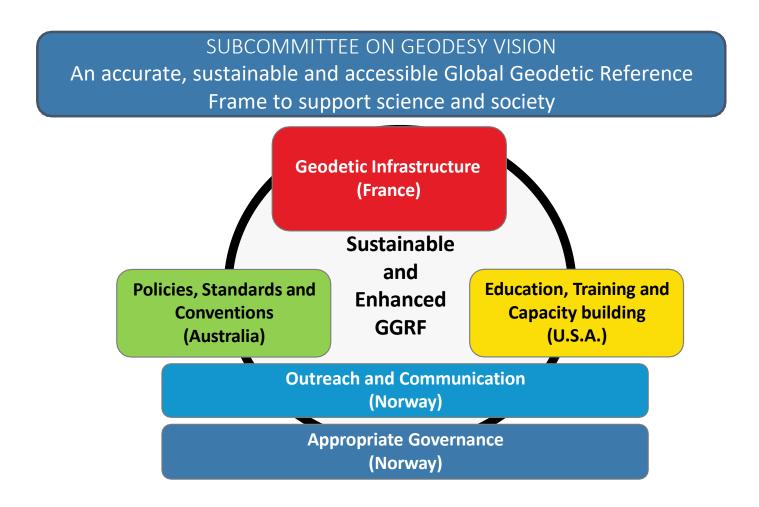
Twelfth session

New York, 3-5 August 2022 Item 8 of the provisional agenda* Global geodetic reference frame

Global geodetic reference frame

18 July 2022

The UN SCoG and the GGRF

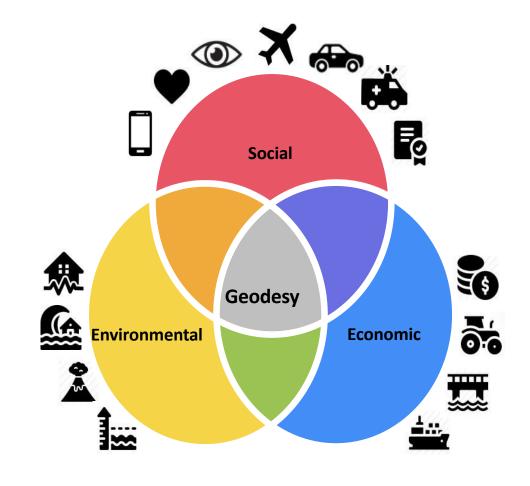


What is the GGRF? Many things ...

- ITRF authoritative model of the Earth
- ICRF to orient the Earth in the universe
- GI VLBI, SLR, DORIS, GNSS
- Gravity and vertical control for physical heights
- Laws, international agreements and norms for Nations
- Standards, techniques & policies for clear guidance
- Equipment, tools and educated people to make it work
- More than just a reference frame a lot more

What does it support?

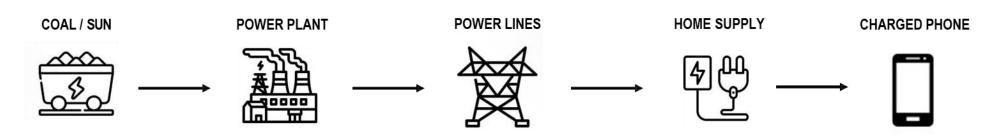
- Evidenced based policies
 - Environmental
 - Social
 - Economic
- Accurate positioning data
- In an accessible framework
- With consistent standards
- Synergy from interoperability

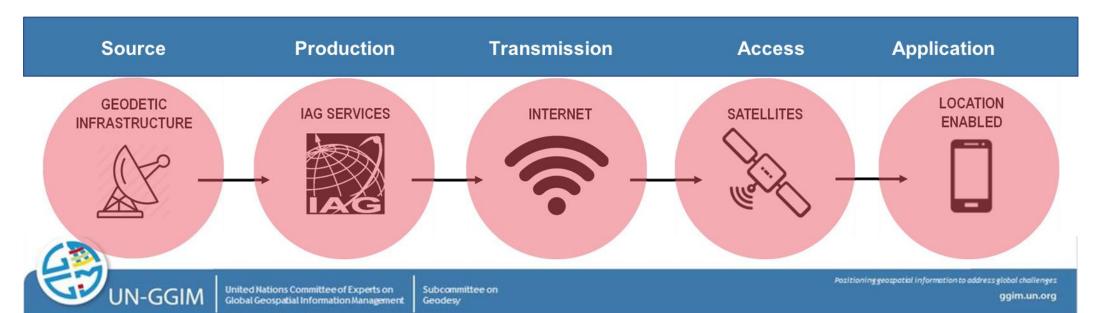


 But the geodesy at the core is often overlooked, unseen and under-appreciated

It is all connected ...

Sustain the entire value chain





The Two Position Papers

FINAL DRAFT FOR ENDORSEMENT

UNITED NATIONS COMMITTEE OF EXPERTS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT

Subcommittee on Geodesy

Version: 29 July 2021 E/C.20/2021/7/Add.2

Position Paper on Sustaining the Global Geodetic Reference Frame

A plan to help achieve the long-term accuracy and accessibility of the Global Geodetic Reference Frame

Strategy and Action Plan to sustain all elements of the geodesy value chain

FINAL DRAFT FOR ENDORSEMENT

UNITED NATIONS COMMITTEE OF EXPERTS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT

Subcommittee on Geodesy

Version: 29 July 2021 E/C.20/2021/7/Add.3

Concept Paper on Establishing a Global Geodetic Centre of Excellence

Dedicated people focused on improving collaboration and coordination amongst the global geodetic community

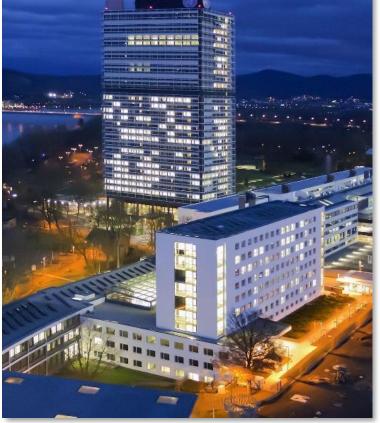
Establishment of the GGCE in Germany

Offer of the German Federal Government was accepted and supported on 11.09.2020 at the 10th UN-GGIM Committee of Experts

The GGCE in Germany

- located at the UN Campus Bonn
- financed and supported by BKG
- supported with virtual secondment by Norway
- Steering Committee (UN DESA + Germany)
- Technical Advisory Committee (SCoG, IAG, FIG, Space Agencies, ...)





UN Campus Bonn

Source: Press office of the city of Bonn

Courtesy Johannes Bouman

Global cooperation and coordination

Economic benefits from investment in geodesy



















Global Outreach – All in NYC

- Held a side event in addition to the UN **SCoG** meeting
- Outreach & Communication to global leaders
- Can't just talk with ourselves
- Need to expand to decision makers and leaders
- Help society to understand the power of where



UN-GGIM - Subcommittee on Geodesv

Learn how geodesy is fundamental for Earth science missions and climate adaptation:

United Nations Forum on a Global Geodetic Reference Frame (GGRF) for Sustainable Development

UN-GGIM 12th Session Side Event - 2 August 2022 at 1:30 pm Conference Room 2 - UN Headquarters - New York

FUNDAMENTAL FOR EARTH SCIENCE AND CLIMATE ADAPTATION

Forum to discuss the Critical Role of Global Geodesy

Did you know that the measurements that we make from sate life systems help to inform decisions around the world, including measurements of sea level rise? Learn more at a forum discussing how the Global Geodetic. Reference Frame (GCRF) informs decision-making, taking place as a UN-GGIM 12th Session Side Event on the GGRF for Sustainable Development and new it is fundament at for Earth science missions and clinicite adaption.



"These measurements depend on having a very well understood reference point: a global geodetic reference frame"

Keynote presentation by Dr. Karen St. Germain For hi Science Division Director NASA Science Mission Directorate



Co-char of the UN-GS M Subsommittee on Occorry Director of National Geodesy

Understanding the consequences of sea level rise in the South Pacific Ms. Meizvanne Hicks Director of Geospetial Information Fig. Ministry of Lands and Wineral Resources

Geodesy as a fundamental component of climate adaptation and sea level monitoring Dr. Matthew Simpson Research Geophysicist Norwegian Mapping Authority



If we want precise positioning and accurate sea level measurements, we need to continue to observe and produce the very best of geodetic products"

Opening remarks by H E Ambassador Peter Thoms



Establishing a United Nations Global Geodetic Centre of Excellence



a sustain the GGR", the Supportmittee on Septiesy proposed. establishing a United Nations Global Geodetic Centra of Excellence. in 2019. This was followed in 2000 by an other by the Rederal. Repurpic of Sermeny to host the Centre, a proposal that was supported by the UN GGIM Committee of Expensi.

Johannes Bouman, head of the geodesy department at the Reportal Agency for Cartegraphy and Geodesy in Germany will present on the progress made by the Government of Cennary and the United Nations to hose and establish a Slobal Sendetic Centre. or Excellence at the United Nations campus in Bone, Germany



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Global Geospatial Information Managemen

aginoun.org

UN SCoG Representatives from the Americas:

Argentina: Federico Arpe

Canada: Calvin Klatt

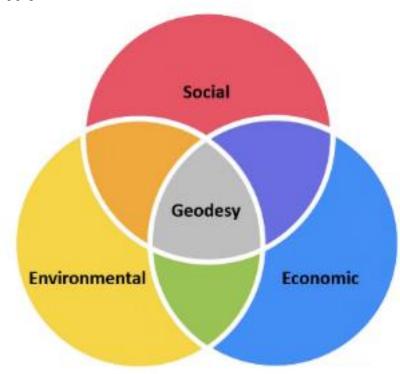
Costa Rica: Álvaro Álvarez

Jamaica: Nolan Aikens

Mexico: Francisco Medina

United States: Daniel Roman

Uruguay: Juan Croquis



Thank you for your attention