

## **UNITED NATIONS**

# United Nations Resolution on a Global Geodetic Reference Frame for Sustainable Development



General Assembly, 26 February 2015

Photo: Kyoung-Soo Eom

ggim.un.org

"We fully realize the importance of critical geospatial infrastructure and information in helping countries and decision-makers make more informed, evidence-based decisions on mitigation and preparedness."

Ambassador Peter Thomson, Fiji's Permanent Representative to the United Nations



# What's the Global Geodetic Reference Frame?

 The GGRF includes, but is not limited to, products that provide realisations of the celestial and terrestrial reference frames. It also includes the component technique observing systems, data centers, analysis centers, and combination and product centers. The GGRF also includes gravimetric products nd physical height systems.

#### Once upon a time...

- Around 2010 there was a great concern in the geodetic community
- The global geodesy network had degraded and suffered set backs. In late 1990 more than 20 core stations existed. In 2009 only 9 permanent stations with GNSS, SLR and VLBI observation
- Initiative from UN Regional Cartographic Conference Asia Pacific (UNRCC-AP)
- UNRCC-AP made the connection with United Nations Initiative on Global Geospatial Information Management (UN-GGIM)
- UN-GGIM realized the importance regarding the improved sustainability and development of global geodesy and the associated infrastructure.
- The Global Geodetic Reference Frame entered the top of UN-GGIM agenda



## **UN-GGIM**

UNITED NATIONS

**COMMITTEE OF EXPERTS ON** 

**GLOBAL GEOSPATIAL** 

INFORMATION MANAGEMENT



#### UN-GGIM, Aims and Objectives

 The United Nations initiative on Global Geospatial Information Management (UN-GGIM) aims at playing a leading role in setting the agenda for the development of global geospatial information and to promote its use to address key global challenges. It provides a forum to liaise and coordinate among Member States, and between Member States and international organizations.



## The GGRF Working Group

- Established late 2013
- Norway/Australia co-chairs
- Members:
  - July 2014: 22 MS + IAG
  - Aug 2016: 31 MS + IAG&WHO
- First task:
   formulate a UN
   resolution



Co-Chairs

A. Chairs





1. Mr. Gary Johnston - Australia Email: Gary Johnston@ga.gov.au Tel: 3 +61 2 6249 9049

2. Ms. Laila Loevhoeiden - Norway Email: laila.lovhoiden@kartverket.no Tel: +47 909 16 928

Positioning geospatial information to address global challenges

#### Emphasis on communication work





#### **#GGRF**

#### @unggrf

## unggrf.org







Just watched a great video on @UNGGRF global geodetic reference frame @UNGGIM #gistribe #LandConf2016

Vis oversettelse



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Positioning geospatial information to address global challenges

http://ggim.un.org/UN\_GGIM\_wg1.html

#### Key objectives of the resolution

- Develop a global geodetic roadmap for the GGRF
- Global cooperation in providing technical assistance in geodesy for those countries in need to ensure the development, sustainability and advancement of a GGRF
- Implement open geodetic data sharing
- Improve and maintain national geodetic infrastructure
- Enhanced multilateral cooperation that addresses infrastructure gaps and duplications globally
- Improved Outreach to make the GGRF more visible and understandable to society



#### Developing the road map

- Main audience is Member States of UN-GGIM
- Geodetic community important stakeholder
- Broad consultation
- Adopted inclusive interpretation of GGRF
- 5 key categories of issue:
  - 1. infrastructure
  - 2. policy, standards and conventions
  - 3. education, training and capacity building
  - 4. communication and outreach and
  - 5. governance



#### The road map highlights

- Actions must be taken to maintain and upgrade current national infrastructure and secure all Member States accurate access to the GGRF;
- Member States are urged to support efforts towards geodetic standards and more openly share their data, standard operating procedures, expertise and technology;
- Actions must be taken to raise geodetic competence and skills, as a lack
  of geodetic capability currently blocks utilization of the GGRF in many
  countries, and hinders their achievement of the sustainable development
  goals. It also threatens the development and sustainability of the GGRF;
- Actions must be taken to raise the general awareness around the value proposition of the GGRF, as this is necessary for its sustainability;
- Actions must be taken to improve the GGRF governance mechanism as this
  is needed to ensure the sustainability and improvement of the GGRF.

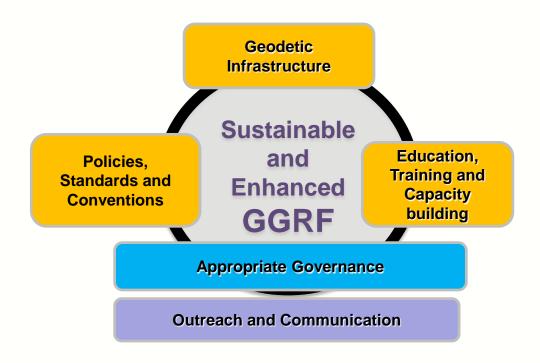


#### Status and future work

- August 5<sup>th</sup>:
  - The road map endorsed
  - The GGRF working group elevated to a permanent UN-GGIM sub-committee
- Determine modalities and methods of work for the new sub-committee
- Develop a position paper to define appropriate governance arrangements for the GGRF
- Develop implementation plan for the road map



#### Image of the GGRF vision



An accurate, sustainable and accessible Global Geodetic Reference Frame to support science and society



## What's in it for you?





#### An enhanced governance mechanism



#### UN-GGIM - Global Geodetic Reference Frame Work

#### **UN RESOLUTION**

In February 2015 the UN General Assembly adopted the resolution "A Geodetic Reference Frame for Sustainable Development" - the first re recognizing the importance of a globally-coordinated approach to ge

The GGRF Working Group is working on the development of a roadm will describe how governments can contribute to the sustainability an enhancement of the Global Geodetic Reference Frame.

#### ficant benefits to the study ir changing planet

neral Assembly resolution "A Global Geodetic Reference Frame for e development" adopted in February 2015 has been an eye-opener for society erstanding of the importance of global geodesy.

oorly understood by the is fundamental to sustainment. In this newsletter, earchers, experts and plain how the UN resoluligeodesy and what it o will benefit their work y of our changing planet.

#### t open latasharing

etic data access from countries helps in modletter gravity field, as well as the development of I projects towards capacity



"Geodesy contributions are today based on best effort. The UN resolution and actions following that, will help to secure the future of geodetic networks and research.

In Finland we already achieved one milestone; a new VGOS radio telescope in Metsähovi. When reasoning for this, the UN resolution had a central role."

Prof. Markku Poutanen,

Finnish Geospatial Research Institute

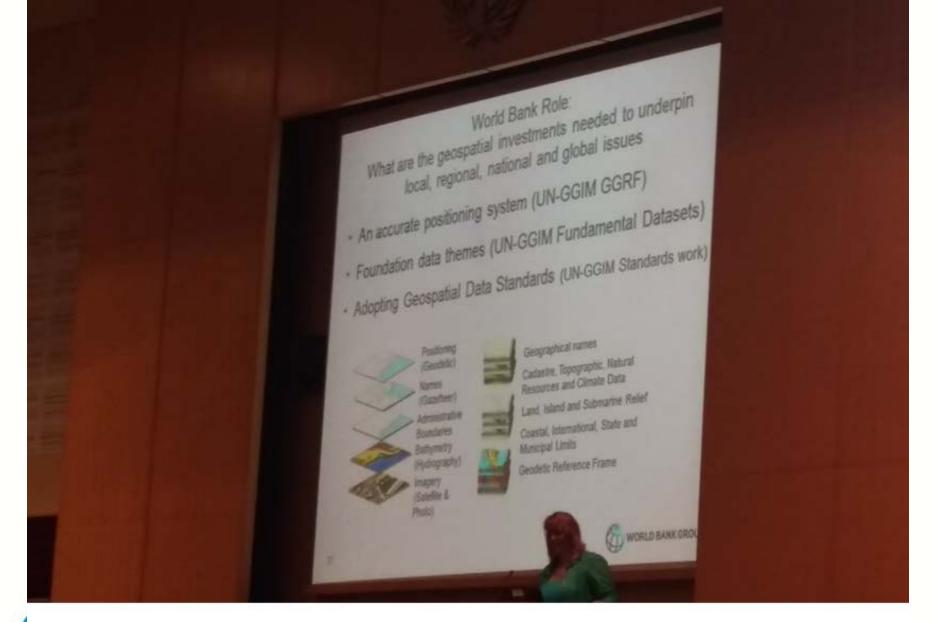
Positioning geospatial information to address global challenges



# World Bank investigates possible line of lending











Great presentation of the Geospatial activities in the #WorldBank by #KathrineKelm @WorldBank #HLF4 @UNGGIM









#### Possible benefits

- Easier to maintain and improve infrastructure
- Maintain priority for our (geodetic) needs
- Easier to attract students
- More data/better quality data
- Improved data sharing
- Improved multilateral cooperation
- Improved education
- More nations/institutions contributing
- Higher work recognition







