

Katowice Declaration

Collaboration to support international Group on Earth Observation (GEO¹) efforts

Version 0.5, 10th June 2022



And



And



Herein referred to individually as a “**Partner**”, collectively the “**Parties**”:

¹ Group on Earth Observations, <https://earthobservations.org/index.php>

ASREN

The Arab states Research and Education Network is a not-for-profit organization with the fundamental objective to implement, manage and extend sustainable Pan-Arab e-Infrastructures dedicated for the Research and Education communities and to boost scientific research and cooperation in member countries through the provision of world-class e-Infrastructures and e-services. ASREN is working heavily on supporting and enabling “Science Cooperation” through engagement with Science Communities, Open Science, Open Access and Science Clouds and Platforms.

GÉANT

GÉANT is a fundamental element of Europe’s e-infrastructure, delivering the pan-European GÉANT network for scientific excellence, research, education and innovation. Through its integrated catalogue of connectivity, collaboration and identity services, GÉANT provides users with highly reliable, unconstrained access to computing, analysis, storage, applications and other resources, to ensure that Europe remains at the forefront of research.

RedCLARA

RedCLARA (Latin American Cooperation of Advanced Networks) is a not-for-profit organization with the aim to foster collaboration between the different countries in the Latin America Region by providing research networking infrastructure for the use of researchers, educators, students and innovators making it possible for them to connect to each other and with their peers in the other regions of the world, and extending the scope to repository of open access publications, to blockchain infrastructure designed for enabling inclusive and scalable projects and solutions for education and research, or to shared HPC computing facilities.

Recitals

WHEREAS the Parties desire to participate in a collaborative endeavour (as herein described) to support international Group on Earth Observation (hereon referred to as GEO) efforts, for the purpose of advancing society and creating a better world, through research and innovation.

DESIRING to work towards a common vision in a manner which is collaborative and aims to share knowledge to enable Regional Education Networks to improve their performance, both individually and collectively, for the benefit of researchers and educators utilising GEO data.

AFFIRMING the ambition for the Parties respective communities to address and anticipate the needs of the research and education community by offering sustainable, open, innovative, and trusted infrastructures and services.

ACKNOWLEDGING the common challenges faced by the Parties when attempting to effectively integrate scientific collaboration across continents.

RESOLVING to find a collaborative, pragmatic and practical approach to delivering services that deliver GEO data in an efficient and timely manner.

HAVE agreed as follows:

Part I.
Introduction
Article 1
BACKGROUND

- (A) The Parties met at the Internet Governance Forum, both physically in Katowice, Poland, and in a virtual setting, on the 8th of December 2021. This was under the auspices of the Town Hall session ‘Exchanging research data responsible to save the planet.’ The following context was provided for the session.
- (B) Global research and education networks support the advancement in global scientific knowledge related to climate change. The observation data, analysis and education materials, which are an essential foundation for addressing matters under the UNFCCC² are transported to and from researchers using the national and regional research and education networks (NRENS/RRENS). For some NRENS, compute and storage services are also provided to researchers in support of climate change research. The global research and education networks facilitate the cooperation between researchers across borders and continents. Our work contributes towards UNFCCC Articles 4.1(g and h) and Article 5.
- (C) To meet the UN sustainable development goals, tackle climate change and to prepare for and respond to disasters (man-made or otherwise) requires data. This data is increasingly being centralised into large data sets from a variety of different sources and at varying volumes. As the pace of technology advances, the number of data sources and the volumes of data acquired continues to grow exponentially. While challenges exist in acquiring, transporting, storing, processing, analysing and then finally re-transmitting a subset of that data for the benefit of citizens and national governments, there also exists a growing divergence in the capabilities of a number of nations and citizens from global south countries to partake in this field at scale (in comparison to countries from the global north).
- (D) The GEO communities focus on the transmission and exchange of data which is utilised in the realm of geospatial research. Geospatial research is the investigation into the various aspects of earth science, but with a focus on particular locations, and this relies upon a number of communication layers and distribution systems. These layers and systems, controlled by a number of different actors, when inter-mixed form a transparent underlying service, otherwise known as the internet. In some respects, these layers are operated by a number Private (commercial), Non-Profit, Governmental and Nongovernmental Organisations (NGOs) to form a communications commons which the GEO community relies upon for its systems and services to work.
- (E) GÉANT, the convener and coordinator of the session, is a fundamental element of Europe’s e-infrastructure, delivering the pan-European GÉANT network for scientific excellence, research, education and innovation. GÉANT is also a participating member of GEO, representing the interests of its National Research and Education Network (NREN) members, promoting their work, and trying to find opportunities to collaborate with other GEO members to help support science and researchers needs.
- (F) The one-hour roundtable focused on how GEO communities, supported by the Parties and their respective NRENS, are responsible for the type of exchange of research data, explained above, that

² United Nations Framework Convention on Climate Change

plays a role in saving the planet. This was in order to find a broad agreement that research and education networks can act as interlocutors for different GEO communities, with a statement endorsing as such.

- (G) The agreed, recorded conclusions from the session, listed in Part II, constitute the body of this declaration.

Part II.
Declaration
Article 2
CONCLUSIONS

- I. A rapid and fluid exchange of data, information and knowledge among researchers worldwide is an important facilitator of scientific progress.
- II. It is noted that technical challenges exist regarding the synchronisation of platforms that support GEO-data transfer within and between continents, which requires further work to resolve. This includes the need to increase technical capacity.
- III. Human capacity building within and between NRENs and RENs on this subject should be supported.
- IV. The Parties recognise the need for increased engagement with end-user communities that produce and digest GEO-data. It is recognised that a proportion of GEO-data end-user communities are unaware of the technology that can be provided by NRENs and RENs for their research and education needs.
- V. Open access policies need to be formed and adopted in line with the UNESCO Recommendation on Open Science.³
- VI. The Parties recognise the diversity of research priorities for end-researcher communities. This requires a better effort from RENs and NRENs to understand research priorities for each continent and identify areas of overlap in order for more effective collaboration.
- VII. RENs and NRENs have a role to increase digital literacy where this subject allows, especially when increasing the level of digital literacy for women active in the GEO ecosystem.
- VIII. RENs and NRENs should also be involved in governance efforts in areas where GEO communities are also active. Cooperation between RENs has already begun in this area.
- IX. A global research and education network (GREN) is something that would greatly enable both the technical and human capacity building noted in points II. and III.
- X. Enhancing the effectiveness of research along the GEO ‘chain’ will be essential in order to fully exploit the value of geospatial data. This can be done by regularly upgrading infrastructure and technology to meet the present-day requirements of end-user communities.

³ <https://unesdoc.unesco.org/ark:/48223/pf0000379949.locale=en>

- XI.** RENs and NRENs provide the mechanisms that enable the realisation of many of the United Nations' Sustainable Development Goals. Collaboration with GEO-communities will be a vital example (and potential metric) to measure REN and NREN contributions here.
- XII.** REN and NRENs should baseline where they already are regarding the Sustainable Development Goals. This includes the need to understand the level of open science usage in different world regions.