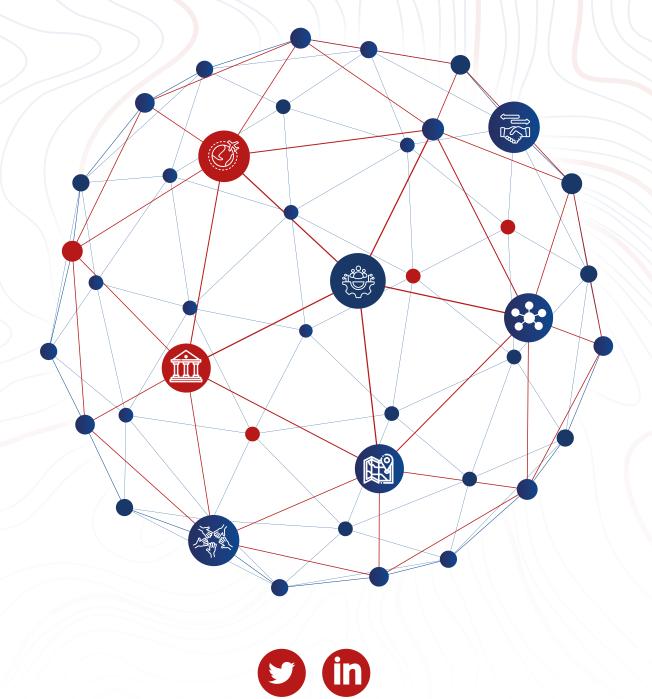


# **ANNUAL REPORT 2022**



www.WGICouncil.org

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# Let Us Work Towards Mapping Common Ground

I am delighted to once again congratulate the members of WGIC for all their work demonstrating the value of geospatial technologies for society and the global economy. This work, particularly in advancing climate action, is gaining considerable international recognition. WGIC receiving the 2022 Prince Talal International Prize for Human Development at COP27 is a testament to these efforts and our commitment to the planet's sustainability.

For us at Esri, climate change has been big on the agenda. At the Esri UC 2022,

I put forward the vision of Mapping Common Ground, which I believe is relevant for all of us. Mapping planet Earth is, of course, what Esri does and what many of you do. We have all been taking the geographic approach, providing a framework for understanding, applying our knowledge and working with stakeholders to conserve planet Earth. With each climate emergency and related issue, mapping this common ground is cardinal to our success.

Mapping is not just making maps but a tremendously strategic activity. What I mean by creating common ground is that we must work towards creating an



Jack Dangermond Chair – Patrons WGIC agreed-upon understanding of the Earth and its processes. This is familiar territory for many of us, primarily as we work in communities. We bring all stakeholders together, discuss common issues and create a foundation for positive action.

The world is changing rapidly, and human-induced climate change poses many challenges. A central challenge is increasing the understanding of how connected everything is -- the physical, social, economic, and cultural dimensions of living on our planet are inextricably linked. Geography can help demonstrate

these linkages, and we can make a difference with greater collaboration between public and private entities. WGIC is indeed making a difference, particularly in advocating for more robust publicprivate partnerships.

We contribute a lot as individuals and companies. Yet, there is a lot more we can achieve when we come together to find common ground. Finding and building this common ground is what WGIC will continue to do, and with your continued support, much progress can be made. Please join me in continuing to remain engaged in WGIC – we need it, and the Earth needs it.





# A Strong Year for WGIC

We have had quite a strong year – primarily due to the role you have played and continue to play in our important industry. It has been particularly rewarding to communicate the contributions of the commercial geospatial sector to the sustainability, security, and economic development of the world. WGIC has been relentlessly communicating the value of the commercial geospatial sector to society and the global economy – its first strategic goal. It has been advocating on several key policy matters – the second strategic goal – and has been creating several business opportunities for the industry through



Ken Mooyman President WGIC

important initiatives - the third strategic goal. I will touch on some of these key accomplishments in this note.

WGIC participated in over 40 global events, where we showcased the work of the committees and our members. These events include the launch of the Spatial Digital Twins Report by the Policy Committee in partnership with ConnectMii; the inaugural Diversity, Equity, and Inclusion (DEI) Trailblazer Awards by the DEI Committee at INTERGEO 2022; the adoption of geospatial capabilities for urban areas by the Partnerships and Industry Engagement (P&IE) Committee with the Global Covenant of Mayors for Climate and Energy (GCoM); integration of the findings of all WGIC reports to illustrate private-sector contributions in strengthening the global geospatial ecosystem as described by the UN Global Geographic Information Management (UN-GGIM) initiative; hosting an International Telecommunications Union (ITU) seminar series on AI/ ML along with Open Geospatial Consortium (OGC) and UN-GGIM Academic Network; and at the end of the year, an UN-GGIM meeting where Dr. Zaffar Sadig Mohammed-Ghouse was elected to lead its Private Sector Network (PSN).

WGIC's participation at INTERGEO 2022 highlights the return and importance of networking, something invaluable to WGIC and its members. Patron Board Member Dr Jurgen Dold of Hexagon provided the opening keynote for the INTERGEO 2022 conference.

#### WGIC Participates in COP27

WGIC participated in UNFCCC's Conference of Parties – 27 (COP27) at Sharm El Sheikh, Egypt, where it received the Prince Talal International Prize for Human Development. WGIC bagged this Prize for its work on greenhouse gas (GHG) monitoring from space, in partnership with former US Vice President Albert Gore's ClimateTRACE Initiative, their platform provider WattTime, and the intergovernmental Group on Earth Observations (GEO). One of WGIC's key partners, ConnectAID, secured WGIC's nomination for the Prize. This is the first time WGIC has received global recognition and a cash prize of \$200,000 for its contributions to advancing climate action on behalf of the commercial geospatial sector. To take this work further, each of your organizations will be contacted in early 2023 for case studies, information on data, products, services, and tools that pertain to climate action, with a geographic focus on Africa.

#### **Greater Relevance**

I would like to take a moment to appreciate our members' consistent engagement and contribution to the tremendous output of WGIC committees. The WGIC Policy Committee, which released the Spatial Digital Twins report in 2022, has been producing a policyrelevant report for the last three years! WGIC brings a professional approach to all the discussions with highly skilled subject matter experts, and each of these efforts brings more international recognition, credibility, and support to WGIC.

WGIC has registered substantial growth in membership in 2022, with Microsoft joining at the patron level. European Space Imaging has come on board at the corporate level, and Ceinsys, DeepSpatial, EKMGlobal, Picterra, SatelliteVu, and Scepter have joined at the associate member level. A hearty welcome to all the new member organizations. It is heartening to see all the new members reiterating the relevance of WGIC to the geospatial industry.

2023 will be the fifth year for WGIC. For a relatively young organization, WGIC is making a tremendous impact globally. This would not have been possible without our esteemed members. I extend my heartfelt appreciation to each of you. There are several challenges ahead of us, and the dynamics of our industry require constant effort and vigilance. Your continued participation and support are vital to overcoming these challenges and co-creating a successful future.

Our accomplishments rest on the constant efforts of the secretariat. Under the excellent leadership of Barbara Ryan, Executive Director, the secretariat has grown in capability, competence and sophistication, acting as the backbone for WGIC and the committees.

This industry has all the essential solutions needed to make giant leaps to improve life on this planet. In 2023, let us expand the scale of this impact. It is our commitment to support exponential changes that our members and the planet will benefit from.

# **Geospatial Impact Beyond COP**

As I look back on 2022, I am particularly pleased with the progress we have collectively made in representing the geospatial sector at the 2022 United Nations Framework Convention on Climate Change (UN-FCCC) Conference of the Parties (COP27). This progress was only possible with the support of WGIC members, partners, and the secretariat, all working cohesively over the last two years.

As we enter 2023, the strategic focus for WGIC is threefold.

First, to advance our climate action efforts and deliver the AGFUND Project titled, Climate Action in Africa - Leveraging Capabilities from the CommercialGeospatial Sector. WGIC is undertaking this project with the money (\$200,000) received along with the 2022 Prince Talal International Prize for Human Development. We are keen on completing this project on time, and within budget, given that this is the first time WGIC has earned revenue above and beyond membership dues. Most importantly, this project will demonstrate the value of geospatial technologies from WGIC members to society and the global economy our first strategic goal. If successful, this project will also help us build a long-lasting partnership with AGFUND and other philanthropic organizations looking to understand the value and relevance of geospatial technologies to their development agendas.

Second, to dive deeper into the chosen focus area - spatial digital twins. Building on the work done in 2022, WGIC will look at the role of geospatial data and technologies in building the metaverse. The vision put forth in the 2022 paper was that all spatial digital twins, regardless of scale and location, should be able to be integrated so that modeling and assessing actions in a virtual environment can be used to ensure that appropriate decisions and actions can be taken at any scale – to build sites, cities, states, nations, or even globally. It is essential that the spatial data, tools, products, services, technologies, and expertise resident within our member organizations be used to create a metaverse that truly represents the physical universe we live in.



Barbara Ryan Executive Director WGIC Third, to strengthen our partnership with the Global Covenant of Mayors for Climate & Energy (GCoM). Cities, especially in the global south, are faced with significant challenges due to human-induced climate forces. These cities have issues related to building resiliency, improving energy efficiency, and reducing emissions - all areas where WGIC members have capabilities supporting climate mitigation and/or adaptation. We are pleased to have the support of GCoM in preparing a paper on the value of geospatial technologies for cities. GCoM, with its reach of nearly 11,500

signatories (cities and local governments), creates a unique opportunity for WGIC to progress on another of its strategic goals – creating business opportunities for the sector. Bringing the respective memberships of both organizations together in several regional fora will help ensure those with specific needs can meet those with specific solutions.

While trying to achieve these three key focus areas, we also want to ensure that WGIC aggressively represents our members at other global events beyond COP. GEO WEEK 2023, Devex World 2023, Climate Week NYC 2023, INTERGEO 2023, and the intergovernmental GEO Ministerial are key targets this year. At each of these events, building on the focus areas described above, we will showcase the work of WGIC members. Bringing specific examples and case studies of your capabilities to these user communities will increase our collective impact.

Commercial capabilities are often underutilized and underappreciated in many international and global governance mechanisms. Over the last couple of years, WGIC has provided a concerted and coherent voice to rectify that situation, though more awaits. I am optimistic that we will continue to build on the successes achieved to date; will add value to your strategic objectives and programs; will most certainly help demonstrate your capabilities; and help build strong relationships to expand your business. Thank you very much for your continued support and association with WGIC.

Commercial capabilities are often underutilized and underappreciated in many international and global governance mechanisms. Over the last couple of years, WGIC has provided a concerted and coherent voice to rectify that situation, though more awaits.





# DEMONSTRATING VALUE OF GEOSPATIAL TECHNOLOGIES IN GLOBAL CHALLENGES

Climate change was selected as the central topic towards which WGIC worked to demonstrate the value of geospatial technologies.

# ADVANCING POLICY MATTERS OF RELEVANCE TO THE GEOSPATIAL SECTOR

WGIC released two policy reports and commissioned one new policy study.

# ENABLING OUTREACH FOR WGIC AND ITS MEMBERS

WGIC continued its efforts to promote the role and significance of the geospatial industry and its contribution to the global economy and society.



Won the **US\$ 200,000** Prince Talal International Price for Human Development 2022, established by the **Arab Gulf Program for Development** (**AGFUND**). This prize recognizes the work of WGIC on climate, specifically on GHG monitoring from space.



Established partnership with the Global Covenant of Mayors for Climate & Energy (GCoM), a nonprofit of 11,500 member cities ready to partner with national and international institutions to tackle the climate crisis.



Represented WGIC Members and the sector at the **global climate conference - COP27** in Sharm El Sheikh, Egypt. WGIC conducted two side events – one with AGFUND and the other with GCoM and its partner ICLEI – Local Governments for Sustainability.



Identified Spatial Digital Twins as a topic of great interest and relevance to the geospatial sector. Released the report in April 2022.



Released a white paper demonstrating the value of WGIC policy work and its alignment with the UN-GGIM IGIF Strategic Pathways. This was released at the 2nd UN World Geospatial Information Congress in October 2022.



Commissioned the report - Africa Geospatial PPPs: How-to Guide & Best Practices. The report will research, analyze and map PPP business models in Africa



WGIC participated in **40+ global** events, more than **20 in-person** events, and **12 virtual events**. WGIC organized round tables, participated in panels, and made presentations based on its research and reports.



WGIC organized partner meetings and its Annual General Meeting at Amsterdam, The Netherlands on 9 May 2022 on the sidelines of Geospatial World Forum 2022.



At INTERGEO 2022, WGIC presented the inaugural DEI Trailblazer -Corporate Impact Award to Esri India and the DEI Trailblazer - Individual Champion Award to Clinton Johonson of GIS NorthStar.

# **Strategic Goals**



Strengthen the contributions of the geospatial industry to society, and the global economy

- Demonstrate the use and value of geospatial technologies
  Provide opportunities for members to opgage with relevant stakeh
- Provide opportunities for members to engage with relevant stakeholders

#### Thought leadership

Showcase the thought leadership of WGIC in global geospatial policy mattersEngage with relevant policymakers



- Create business opportunities for the geospatial industry
- Commission and leverage programs crucial for advancing the sector
- Provide opportunities for members to increase their visibility and aid in business development

# **Implementing Goals through Programs**



#### Climate as an overarching theme

• Focus on topics of disaster resilience, energy transition, and sustainable infrastructure

#### Policy advocacy

- Public-Private Partnerships (PPP)
- Spatial Digital Twins
- Geospatial Artificial Intelligence/ Machine Learning (GeoAl)



#### **Cross-cutting Efforts**

- Diversity, Equity and Inclusion (DEI)
- Industry-Academia Collaboration
- Collaboration with regional/local geospatial associations



# **WGIC Members**



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# **Member Representatives**

#### **Patrons**



Jack Dangermond Esri Founder &

President



Alain De Taeye TomTom

Member Of Management Board



Colby Manwaring Autodesk Vice President Innovyze



Rajesh Alla IIC Technologies Ltd Chairman & Managing Director



James Van Rens RIEGL Senior Vice President



Robert Mankowski Bentley Systems Sr. VP Digital Cities



Daniel Jablonsky Maxar Technologies President



**KK Singh Rolta** Founder & CEO



**B.V.R. Mohan Reddy** Cyient Ltd Founder Chairman & Board Member



**Dr. Siva Ravada Oracle Corporation** Vice President of Development



Steven Berglund Trimble Executive Chairman, Board of Directors



Juergen Dold Hexagon AB Former President GSI



Robbie Schingler Planet Labs Inc.

Co-Founder & Chief Strategy Officer

•



#### WGIC Board: 2021-2023



**Brian Nicholls** AAM PTY Ltd Managing Director



Theo **Agelopoulos Autodesk** 

Senior Director Infrastructure Business Strategy & Marketing



John Renard Cyient President - Europe



**Dean Angelides** Esri

Corporate Director, International Operations



**Adina Gillespie** GHGSat

Director of European Business Development



Sanjay Kumar **Geospatial World** CEO



**Ken Mooyman** Hexagon Geosystems Former Executive



Vice President



Steven Sawdon **IIC Technologies** 

Managing & **Operations Director** 



Andrea Bersan **Maxar Technologies** 

Former VP Global Industry Business Development



Harsh Govind **Microsoft** 

Principal Product Manager



**Jayant Sharma** Oracle

Sr. Director, Product Management



Agnieszka Lukaszczyk Planet Labs Inc. Senior Director -**European Affairs** 



**James Van Rens** RIEGL

Senior Vice President



**KK Singh** Rolta Founder & CEO



Willy Govender **Terra Analytics** CEO



**Arnout Desmet** Tomtom

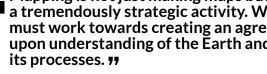
Former Vice President



**Ronald Bisio** Trimble Senior Vice President

Mapping is not just making maps but a tremendously strategic activity. We must work towards creating an agreedupon understanding of the Earth and its processes. **11** 

**Jack Dangermond** Chair - Patrons, WGIC



# Committees

Diversity, Equity and Inclusion (DEI)

Chair Albert H. Anoubon Momo Trimble

Members Iulia Maier Cyient Ltd

Valrie Grant GeoTechVision

Eva Carranza Hexagon Geosystems

Kristi Erickson Planet

Finance, Audit and Risk

Chair James Van Rens RIEGL

Members Brian Nicholls AAM Pty Ltd

Zaffar Sadiq Mohamed-Ghouse AAM Pty Ltd

Industry-Academia

Chair Dr. Siva Ravada Oracle Corporation

Members Zaffar Sadiq Mohamed-Ghouse AAM Pty Ltd

Dean Angelides Esri

Ken Mooyman Hexagon Geosystems

Kumar Navulur Maxar Technologies

Partnerships and Industry Engagement (P&IE)

Chair Robert Hoddenbach Fugro Members Michael De Lacy AAM Pty Ltd Eric DesRoche

Autodesk Inc.

Marta Bouchard Autodesk Inc. Louis-Martin Losier

Bentley Systems

Charles Yu Cyient Elena Francioni

e-GEOS

Fabio Volpe e-GEOS

Pooja Mahapatra Fugro

Josiah Burkett GeoTechVision

Valrie Grant GeoTechVision

Adina Gillespie GHGSat

Andy Waddington Christian Luttenberger Hexagon Geosystems

Guillermo Gutierrez IIC Technologies

Athiye Jawad Planet Labs

Brittany Zajic Planet Labs

**Alex Gow** Satellite Vu

Manuel Sanabria Soto Satellite Vu

Eldrige de Melo Satellogic

Thomas VanMatre Satellogic

Rhiannan Mundana Spatial Vision

Hervé Clauss TomTom

Jackie Ferreira Topcon

Brian L. Soliday Voxelmaps Policy Development and Advocacy

Chair Jayant Sharma Oracle

Members Zaffar Sadiq Mohamed-Ghouse AAM Pty Ltd

Kumar Navulur Maxar Technologies

James Van Rens RIEGL

Irene Benito Planet

Marius Swanepoel TomTom

Public-Private Partnerships (PPP)

Chair Willy Govender Terra Analytics

Members Brian Nicholls AAM Pty Ltd

Simon Musaeus Hexagon Geosystems

**Irene Benito** Planet

Albert H. Anoubon Momo Trimble

**Senior Advisors** 

UN and

Related Entities Zaffar Sadiq Mohamed-Ghouse AAM Pty Ltd

Memberships Dean Angelides Esri

Marketing Pier Francesco Cardillo e-GEOS



# **OUTREACH 2022**

WGIC continued its efforts to promote the role and significance of the geospatial industry and its contribution to the global economy and society. WGIC used every opportunity of participation in geospatial and other industry events to engage with policymakers, business leaders, the industry at large, and user communities to connect the stakeholders, facilitate partnerships and highlight the benefits of geospatial adoption to drive positive change.

# **Glimpses of WGIC Outreach Activities in 2022**

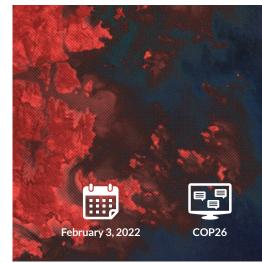
#### GeoAI: What will it take AI to work with geospatial data?





WGIC partnered with ITU AI for Good, OGC, and the UN-GGIM Academia Network to launch the GeoAI Discovery Series on the applications of geospatial artificial intelligence (GeoAI) and the relevance of GeoAI to the UN Sustainable Development Goals (UN-SDGs). Topics such as digital twins, agriculture, and climate change were discussed during the series.





#### A voyage to net zero: How space-based technologies deliver the Glasgow Climate Pact

WGIC's **Barbara Ryan** was among the speakers on a panel hosted by Devex in partnership with the Satellite Applications Catapult titled "A voyage to net zero: How space-based technologies can deliver the Glasgow Climate Pact." The discussion revolved around the role of the space sector and its capabilities to drive forward the key action areas identified at COP26 and accelerate the introduction of new solutions to the impending climate crisis.

#### Geo Week 2022





WGIC supported Geo Week 2022, the leading event for geospatial, 3D, and built world sectors. Speaking at the Geospatial/LiDAR keynote: Emerging environmental applications across the earth and beyond, WGIC's Barbara Ryan presented the outcomes of the report <u>GHG</u> <u>Monitoring from Space: A mapping of capabilities</u> <u>across public, private and hybrid satellite missions</u>, developed in collaboration with the Group on Earth Observations (GEO) and Climate TRACE.





#### GeoAl Discovery Series – Where ethics and geospatial Al meet





The AI for Good panel discussion explored the capabilities of the geospatial industry as a leading force in the discussions on ethics and AI. Building norms for the ethical use of AI is an emerging and important topic that was largely covered in *the WGIC Policy and Trends report on GeoAI*, where a range of GeoAI experts presented their views on the need for ethical governance around geospatial data. This series provided a forum for leading voices in the fields of geospatial and AI across various sectors to describe the latest research and real-world applications of GeoAI to meet the UNSDGs.



#### 2nd Geospatial Knowledge Infrastructure Summit

WGIC's Barbara Ryan participated in the 2nd Geospatial Knowledge Infrastructure Summit, organized by the UN Statistics Division and Geospatial World. The summit refined the Geospatial Knowledge Infrastructure (GKI) concept, demonstrated geospatial adoption in defined sectors, projected the value proposition of geospatial knowledge in those sectors, and appraised the readiness for transition to GKI. On the summit's first day, Barbara talked about the fourth industrial revolution and the knowledge economy.



#### World Engineering Day 2022





WGIC joined the 24 HRS LIVE Program of the World Engineering Day 2022 celebrations in partnership with the World Federation of Engineering Organizations (WFEO). During the event, WGIC talked about geospatial technologies, the engineering field's demonstrative value for climate action, and measuring the progress towards UN-SDGs.





World Engineering Day 2022 24hrs LIVE celebrations will promote the value of geospatial technologies in addressing climate change and measuring our progress towards the UN Sustainable Development Goals (SDGs).

The world is coming together to celebrate this important day, but it's not just about celebrating; we need you all! Join us and our partners World Federation of Engineering Organizations (WFEO), in this effort.



#### Inter Astra 2022



During Inter Astra 2022, a three-day leadership symposium for the emerging space economy, Barbara Ryan represented WGIC. Using the leadership symposium, Inter Astra worked to lay the foundation for principled and powerful leadership as humanity approaches new horizons.



#### WSIS TalkX: International Women's Day





International Women's Day 2022 was celebrated under the theme "gender equality today for a sustainable tomorrow." The session was organized in the framework of WSIS TalkX and aligned with WSIS Action Lines and the UN-SDGs. WGIC presented its ideas on the topic during the session, which featured an interactive panel of high-level stakeholders to highlight the role of women in ensuring a sustainable tomorrow.





# Earth observation applications for climate change mitigation and adaptation

WGIC organized a workshop on **"earth** observation applications for climate change mitigation and adaptation" at Geolgnite 2022 along with its members. The workshop demonstrated the value of earth observation data, analytics, and insights to provide meaningful and effective solutions for climate action. WGIC members GHGSat, Maxar Technologies, Planet, SatelliteVu, and Satellogic joined the workshop.





March 10, 2022

Virtual

# Spatial Digital Twins: Trends, Opportunities and Way Forward





WGIC launched its Spatial Digital Twins report through a virtual event. It was supported by partner organizations buildingSMART, Open Geospatial Consortium (OGC), and World Federation of Engineering Organizations (WFEO). The Association of Geospatial Industries (AGI), a regional geospatial association of private sector companies, supported the event.



#### **BRICS Forum on Big Data for Sustainable Development**



April 26-27, 2022

Virtual

The BRICS Big Data Forum was held in a hybrid format. WGIC's Barbara Ryan was invited as a guest speaker to the opening ceremony. At this forum, Barbara spoke about valuable big data solutions from the commercial sector. She highlighted their relevance in areas such as GeoAI and Spatial Digital Twins and demonstrated how they can assist in solving global challenges such as climate change and monitoring the UN-SDGs.



#### WGIC at Geospatial World Forum 2022





#### Future Geospatial People: Knowledge, Skills and Attitudes

May 11



WGIC organized a series of roundtables at GWF 2022

Hosting a roundtable, WGIC presented its views about the **knowledge**, **skills**, **and attitudes of the future geospatial workforce**, how the range of institutions of higher learning meet the needs of industry, and the ways industry can contribute to meeting those needs. WGIC has a specific interest in supporting the industry to take advantage of all opportunities from the 4IR technologies and the growing demand for geospatial knowledge. As such, the WGIC Committee on Industry and Academia Collaboration has embarked on a process with representatives from academia to address the needs of future geospatial professionals.

#### DEI Roundtable May 11

In 2022, WGIC's **Diversity**, **Equity**, **and Inclusion (DEI) Committee** sought to assist the geospatial community by delving deep into the dynamics of DEI in the workplace and identifying concrete measures they could take to accelerate desired success in their DEI efforts.



#### **Climate Roundtable**

**May 11** 



WGIC organized a climate roundtable with partner organization, the European Union Agency for the Space Programme (EUSPA). The roundtable was supported by the European Association of Remote Sensing Companies (EARSC). The program's title was "Climate Change and Innovative Geospatial & Space-based Solutions Roundtable." The discussions revolved around the opportunities for the sector in the European Green Deal - a package of policy initiatives that aim to set the EU on the path to a green transition, with the ultimate goal of reaching climate neutrality by 2050.



#### **UCGIS Symposium 2022**



Executive Director Barbara Ryan gave a keynote address at the **UCGIS Symposium 2022**. The symposium's focus was looking forward to what's next for the geospatial community as society continues to grapple with urgent social and environmental challenges, including the COVID-19 pandemic, climate change, environmental sustainability, and inclusion and diversity.



# UNGGIM UNG

#### **UN-GGIM-** Twelfth Session





WGIC participated in **UN-GGIM's Twelfth Session** in August 2022. WGIC organized a side event and a networking reception for delegates and partners. During the side event, the findings from WGIC's report on Spatial Digital Twins were presented, including case studies, best practices, and recommendations to both governments and industry.

#### The 9th Digital Earth Summit by ISDE



thennai, India

With the support of the Association of Geospatial Industries (AGI India), WGIC hosted a plenary panel at the International Society for Digital Earth (ISDE) 9th Digital Earth Summit 2022. The discussion title was "Geospatial Community in India – Catching up with global trends on Digital Earth." The discussions revolved around the challenges ahead of the Indian geospatial community to meet the needs of government and non-government geospatial organizations, including their human resource needs.



#### World Satellite Business Week





WGIC attended the World Satellite Business Week, an augmented edition providing in-person and online access to the summit. In 2022, senior executives, investors, and state government officials from the connectivity and remote sensing value chain exchanged on such topics as financing, manufacturing, launching, in-space logistics, 5G & cloud, the rise of GSaaS as well as big data, AI, and digitalization, etc. The conference provided a brilliant opportunity for WGIC to network with industry players and communicate findings from its reports.



#### **UN World Geospatial Information Congress 2022**





October 10-14, 2022 Hyd

WGIC participated in the Second United Nations World Geospatial Information Congress (UNWGIC) and launched the report titled "Enabling the Geospatial Ecosystem -Policy Considerations for Governments and Industry." The report shows the alignment of WGIC's policy advocacy work with the UNGGIM IGIF strategic pathways on policy and legal, innovation, and financial aspects. WGIC also participated in panels on future geospatial information ecosystem and DEI.





#### **INTERGEO 2022**

WGIC participated as a strategic partner in INTERGEO 2022, held in Essen, Germany. WGIC brought its extensive knowledge from its programs on geospatial policies, climate change, diversity, equity, and inclusion (DEI), and industry-academia collaboration to the event. Further, WGIC organized partner meetings and networking receptions to facilitate the collaboration of WGIC members and partners with the diverse geospatial industry at INTERGEO. On this occasion, WGIC presented the inaugural DEI Trailblazers Awards to Esri India (DEI Corporate Impact) and Clinton Johnson of GIS NorthStar (DEI Individual Champion).



#### **UNFCC Conference of Parties (COP27)**

WGIC participated in the UNFCCC Conference of Parties (COP27) held at Sharm El Sheikh, Egypt. During its outreach activities at COP27, WGIC impressed upon the stakeholders that the time for climate action is now. The private sector in the geospatial industry has the capability to provide effective solutions for climate action. Implementing policies enabling easier access to data, tools, and technologies from the private sector is important. WGIC believes that only organizations like the UNFCCC and all the participating parties can bring that kind of change. Here are some highlights of WGIC's activities at COP27.



Sharm El Sheikh, Egypt

#### WGIC receives The Prince Talal Prize



WGIC received the Prince Talal International Prize for Human Development 2021, focused on SDG 13 Climate Action. The WGIC project nomination that won this award is - <u>Leveraging</u> <u>Commercial Capabilities for</u> <u>Climate Action on the SDGs</u> <u>through Mapping and Earth</u> <u>Observation.</u>

#### The role of private sector and social enterprises in climate change

AGFUND and WGIC hosted an event at COP27 on the role of the commercial geospatial sector in climate action in Africa and other developing countries. Robert Hoddenbach from Fugro, Stephane Germain from GHGSAT, and Athiye Jawad from Planet Labs joined the discussion.



#### Delivering net-zero resilient cities through research & innovation



WGIC and The Global Covenant of Mayors (GCoM) hosted an event on building resilient cities through research and innovation. In collaboration with GCoM, WGIC prepared a discussion paper that was shared during the side event. The title of the paper is "Connecting the Dots: Leveraging Geospatial Technologies to Accelerate City Climate Action."

# COMMITTEE ACTIVITIES

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# Diversity, Equity and Inclusion (DEI)

WGIC constituted the Diversity, Equity and Inclusion (DEI) Committee in 2021 to facilitate the foundational awareness and understanding of the benefits of a diverse workforce and the importance of equity and inclusion in creating better workplaces within the geospatial industry. The Committee desires to design and recommend DEI strategies and evolve methods to monitor DEI progress.

In 2022, the Committee continued its advocacy, emphasizing the advantages of diversity, prejudices that inhibit inclusion, and approaches to becoming more inclusive. Further, the Committee focused on investigating available methods for taking action and expediting desired success in DEI efforts.

Albert Momo (Trimble) chairs the DEI Committee. It is ably supported by Valerie Grant (GeoTechVision), Iulia Maier (Cyient Ltd), and new members who joined in 2022 - Eva Carranza (Hexagon Geosystems) and Kristi Erickson (Planet) and Kuhelee Chandel from the WGIC Secretariat.

#### **Awareness Creation**

There has been a considerable surge in DEI initiatives in recent years to create a more tolerant and inclusive work environment for people of all backgrounds. Previously, DEI was viewed as a method to ensure government compliance or as a feel-good program by private companies. The geospatial sector now understands the need for DEI and how a broad spectrum of people from different backgrounds and cultures provides the required heterogeneity of opinions and balance of voices.

In a first for the geospatial industry, WGIC took up DEI as a prominent theme pertinent to the industry's maturity and organized a DEI workshop at Geospatial World Forum 2021 to improve awareness about DEI. Building on the success of this workshop, WGIC organized a similar workshop at Geospatial World Forum 2022, emphasizing the shift from awareness to action.

The workshop witnessed a diverse representation of WGIC member companies. The discussion focused on three themes. The first was "Starting Your DEI Journey." The panel covered DEI program expectations, flaws, areas of improvement, policies, and procedures for optimal and consistent results. The second theme was "Barriers to Action." Participants, who champion DEI efforts in their respective organizations, offered suggestions for avoiding and clearing the roadblocks to DEI implementation. The concluding theme, "Call to Action," motivated the participants to put together the insights, ideas, and best practices offered through the conversations into actions to progress DEI within their enterprises and the larger geospatial community.

# Celebrating Diversity in Geospatial Information

WGIC continued its efforts to raise DEI awareness in the geospatial domain by participating in the "Celebrating Diversity in Geospatial Information" session during the Second United Nations World Geospatial Information Congress (UN-WGIC 2022) in October 2022 in Hyderabad, India. Albert Momo, WGIC DEI Committee Chairperson, spoke on the measures taken by WGIC and its members to improve the DEI landscape in the sector.



WGIC organized a DEI workshop at Geospatial World Forum 2022



WGIC participates in the UN World Geospatial Information Congress (UN-WGIC) 2022



#### WGIC DEI TRAILBLAZER AWARDS 2022

Taking its commitment to DEI further, WGIC instituted the WGIC DEI Trailblazer 2022 Awards, another first for the global geospatial industry. In October 2022, WGIC presented the first edition of the DEI Trailblazer 2022 Awards on the main stage of INTERGEO 2022 in Essen, Germany.

Esri India bagged the inaugural WGIC DEI Trailblazer - Corporate Impact Award. Clinton Johnson, Racial Equity and Social Justice Solutions Lead, Esri, received the WGIC DEI Trailblazer -Individual Champion Award. The jury, chaired by the DEI Committee, unanimously selected the above for the awards among many outstanding nominations.



# $\star\star\star\star\star\star$

#### Diversity in Leadership: A Geospatial Industry Perspective

In Q4 of 2022, the DEI Committee launched an effort titled "**Diversity in Leadership: A Geospatial Industry Perspective.**" The Committee seeks to investigate gender, racial, ethnic/cultural, and geographical diversity in leadership in geospatial businesses through this research and expects to release a white paper in 2023.



# Finance, Audit and Risk

WGIC constituted the Finance, Audit & Risk Committee (FARC) in 2021 to assist the organization in governance - to ensure effectiveness, efficiency, ethical behavior, and legal compliance. The Committee aims to maintain strong and streamlined financial operations, audits, and risk management practices at WGIC. To achieve this, the Committee set up standards for reporting and monitoring. The Committee examines financial reporting quality, compliance with regulatory requirements, control management, financial and audit risks, timely reporting to the board of directors, effective management of finances, investments, accounting, audits, and banking relations, and the effectiveness of policies and procedures.

James Van Rens of RIEGL International chairs the FARC Committee with the support of members Brian Nicholls and Zaffar Sadiq Mohamed – Ghouse of AAM, a Woolpert company.

#### 2022 Activities

The FARC Committee decided that WGIC should start collecting membership dues in January every year to ensure a stable financial standing for the organization throughout the year. WGIC put this resolution into swift action, which brought financial stability to the organization during the year.

The Committee decided to move WGIC headquarters from Amsterdam to The Hague. The secretariat and the officers worked closely with the legal consultants to amend the articles of association, replace the Chamber of Commerce document (KVK Document) with the KVK Authority document, change the UBO document to the current KVK document, and change the address to the Hague. The incorporation and banking processes are work-in-progress.

The risk management and mitigation processes the Committee intends to evolve for the organization include checks and balances on the following aspects: compliance with the laws, finance and audits, litigation and claims, fraud and theft, information technology, and security and governance. The Committee created the initial version of the WGIC Primary Risk Register and, at the time of writing this annual report, is undergoing the risk description build-out.



# Industry-Academia Collaboration

The Industry-Academia Collaboration Committee is a relatively young entity within WGIC with the vision to foster collaboration between the geospatial industry and academia and deliver outcomes that benefit both parties. To further this vision during this reporting period, the Committee focused on convening and engaging with the academic sector to establish symbiotic relationships. In September, **Siva Ravada**, **Vice President, Oracle, became the Chair of the Committee, while Aaron Addison from the WGIC Secretariat began supporting the Committee.** 



#### **2022 Activities**

To prepare for a white paper on education and training in the geospatial sector, a virtual session was held in February 2022 to discuss the gaps between industry skill needs/expectations for a job-ready workforce. The session, which saw the participation of several thought leaders from industry and academia, also brought to the fore the challenges experienced by academia in designing curricula to meet industry needs.

The session highlighted the necessity for industry and academia to engage in closer collaboration with a long-term perspective to address the problems experienced in sustaining the geospatial industry.

This session was followed by an in-person roundtable discussion during the Geospatial World Forum

2022, discussing the following topics:

- What are the knowledge, skills, and culture of the future geospatial workforce required by the geospatial industry at various levels?
- What are the opportunities available for higher learning institutions to meet industry needs?





# Partnership and Industry Engagement (P&IE)

The Partnership and Industry Engagement Committee (P&IE Committee) reduced the number of its sub-committees in 2021 from six to three. These three sub-committees took up **Disaster Resilience** (chaired by Pooja Mahapatra, Fugro), **Energy Transition** (chaired by Robert Hoddenbach, Fugro), and **Sustainable Infrastructure** (chaired by Arnout Desmet, TomTom) as their focus areas. However, 2022 brought additional changes to the structure and work of the Committee.

During July 2022, the P&IE Committee reached a consensus that it should restructure again to enable a sharper focus on critical areas and utilize its members' limited time and resources more efficiently. The three sub-committees were folded back into the main committee, even as the sub-committees wrapped up their work in their respective areas. The WGIC's strategic goal to 'strengthen contributions of the geospatial industry to society and the global economy with climate change as the overarching theme' will continue in the respective working group domains, but now as one concerted effort by the P&IE Committee. A new Terms of Reference was created for the Committee, which lists its main objectives as:

- Produce and promote a thematic report every year
- Solicit, select and review WGIC member initiatives
- Proactively pursue partnerships with other associations and groups to fulfil the mission of the Committee

#### **2022 Activities**

As part of its advocacy activities, WGIC led its member Fugro to produce a paper titled "**Geo-data for Risk Management in a Changing Arctic: If we don't measure, we don't know**" with the support of e-Geos, another WGIC member. Further, WGIC and Fugro participated in the bi-annual Arctic Observing Summit (AOS) in Tromso, Norway, in March 2022 and socialized the paper. Additionally, Fugro presented the paper at the December Geological Remote Sensing Group annual conference in the Netherlands.



In August, the P&IE Committee participated in the renewed inperson UN-GGIM meetings in New York, organizing a side event based on digital twins. As part of its mandate to build relationships and partnerships, the Energy group Transition deepened its association with the World Enterprise Council (WEC) and the International Energy Agency (IEA) in 2022. The Committee supported the IEA by providing a geospatial review of their paper, "Improving Electricity Access Data in Sub-Saharan Africa."

The Sustainable Infrastructure Group within P&IE Committee continued its partnership efforts with the International Road Federation (IRF) to raise awareness of geospatial value and contributions to the IRF membership. It focused its discussions on spatial digital twin applications in sustainable mobility and road access for all.

The P&IE Committee enthusiastically endorsed a new partnership with the Global Covenant of Mayors for Climate and Energy (GCoM). GCoM is the largest global alliance for city climate leadership, built upon the commitment of about 11,500 cities and local governments from six continents and 142 countries, representing more than a billion people. The Committee and the partnerhips are supported by Jill Jones from the WGIC secretariat.

In November, WGIC Executive Director Barbara Ryan and P&IE Committee Chair Robert Hoddenbach participated in a roundtable discussion with GCoM at the UN Conference of the Parties (COP27) in Egypt. The P&IE Committee prepared a white paper before the event titled "Connecting the Dots: Leveraging Geospatial Technologies to Accelerate City Climate Action."



# **Policy Development and Advocacy**

The WGIC Policy Committee was ably chaired throughout the year by Arnout Desmet (TomTom), with the active engagement of Kumar Navulur (Maxar), Jayant Sharma (Oracle), Irene Benito (Planet), Jim Van Rens (RIEGL, International), and Zaffar Mohamed Ghouse (Spatial Vision and AAM). At the end of the year, upon the retirement of Arnout from TomTom, Jayant Sharma willingly assumed the role of Policy Committee Chair, and Marius Swanepoel from TomTom joined the Committee. Barbara Ryan provides secretarial support to the Committee.

Building on the 2021 WGIC report titled "Geospatial AI/ML Applications and Policies: A Global Perspective," WGIC co-hosted the International Telecommunications Union (ITU) Seminar Series on Artificial Intelligence (AI) for Good in partnership with the Open Geospatial Consortium (OGC), the Chair of the United Nations Global Geographic Information Management (UN-GGIM) Academic Network. Twelve seminars, spanning over twelve months, focused on the applications of AI in agriculture, climate action, digital twins, forestry, and healthcare.

More than 21,000 participants worldwide joined these online sessions live and on-demand. The seminar series received highly positive feedback, and WGIC's participation helped ensure the work of the Policy Committee reached a larger audience.

As indicated in the 2021 Annual Report, the Policy Committee selected Spatial Digital Twins as its next focus. The research was initiated at the end of 2021. The report, "Spatial Diaital Twins -Status, Opportunities, and Way Forward," was released in an online webinar in April 2022 in partnership with ConnectMii. Participants from academia, local, and national governments and industry from around the world joined the online event.

The report characterized the topic as **"Digital Twins: Moving from the Factory to the Street"** and presented the business case by reporting that in 2021 there was \$ 12.7 bn revenue associated with digital twins, with an estimated \$8 bn for the geospatial industry, and that it was expected to rise to \$45 bn by 2026, with an estimated \$25 bn for the geospatial industry.

Legislation and regulations pertaining to digital twins and use cases from around the world were summarized, and a vision was put forth that all digital twins, regardless of scale, should be interoperable and capable of being linked. While there are certainly challenges to be overcome, as articulated in the report, the opportunities for visualizing, and most importantly, modeling changes in the environment can be accelerated with spatial digital twins. The report had a valuable appendix (a best practice for future reports) highlighting WGIC members' work in spatial digital twins.

WGIC socialized the report and facilitated additional marketing for WGIC members' work in this area at INTERGEO 2022 in Essen, Germany, in September. A WGIC side-event showcased the work of WGIC Patron Members Autodesk, Bentley, Esri, Hexagon, and Topcon.

Building on this report, WGIC partnered again with ConnectMii stress the importance of to underground mapping and spatial digital twins' role in that arena. Talks from the City of New York, Singapore Land Authority, and the UK Geospatial Commission described the government's needs and actions in underground mapping, with the commercial sector presenting tools and other capabilities for better mapping and modeling of the assets. The online



event also acknowledged Geoff Zeiss' career-spanning work on this important topic. Geoff, who passed away in September 2022, was one of Canada's geospatial trailblazers. WGIC fondly remembers Geoff for his vision, leadership, passion, and humaneness.

Lastly, at the end of 2022, the WGIC Policy Committee deliberated and selected its next topic for research as the metaverse. A Terms of Reference titled **"Advancing Geospatial Data and Technologies in the Metaverse"** is up for approval and funding in early 2023, with an expected delivery date of September 2023.

In 2021 there was \$12.7 bn revenue associated with digital twins, with an estimated \$8 bn for the geospatial industry. It is expected to rise to \$45 bn by 2026, with an estimated \$25 bn for the geospatial industry.



# Public-Private Partnerships (PPP)

The Public-Private Partnerships (PPP) Committee, since its inception, has been actively advocating the significance and benefits of executing geospatial projects in PPP mode. Further, in a 2021 report titled *Public-Private Geospatial Collaborations: Exploring Potential partnerships Models*, the Committee examined the forces paving the way for the increased openness and adoption of PPPs in the geospatial industry. These include (but not limited to) accelerated digital adoption, forces of de-globalization, improved private sector capabilities, the need for preparedness for effective response in times of crises, budgetary constraints and mounting debt levels of countries, rising costs, and falling venture capital.

Over the past thirty years, the legislative and regulatory environments of developed nations have adapted to the new realities and embraced the idea that the private sector is better able to adopt and implement rapidly changing technologies and business approaches. But now, the report establishes that, in the backdrop of a rapidly evolving business environment, governments, especially in the developing world, are also opening up to the potential of PPP business models to deliver public services.

The findings and the subsequent socialization of this report led to the PPP Committee members, which included Willy Govender (Terra Group & Committee Chair), Albert Momo (Trimble), Simon Musaeus (Hexagon), Irene Benito (Planet), and Brian Nicholls (AAM Group) come up with a strong recommendation to the Board in December 2021 that the Committee should focus on the opportunities in developing regions.

Subsequent to Bhanu Rekha assuming the role of advisor to the PPP Committee in May 2022, the Committee's activities gained momentum. The Committee, which reconvened after a pause, had members fine-tune the scope of the next phase of activities to produce beneficial outcomes for WGIC members and the global geospatial industry.

The Committee came to a consensus to narrow the focus of PPP Committee's activity for 2022-23 to developing countries such as Africa, South East Asia, South America, and South Asia, and explore the opportunities in sectors such as geospatial infrastructure and land administration. As a first step, the Committee decided to focus on Africa and launched the project titled Africa Geospatial PPPs: How-to Guide & Best



WGIC PPP Committee meets at UN World Geospatial Information Congress in October 2022, Hyderabad, India. In the picture: (From Left to the right) Albert Momo of Trimble, Simon Musaeus of Hexagon, Barbara Ryan, Bhanu Rekha, Harsha Madiraju of WGIC, Willy Govender of Terra Group.

**Practices.** The project envisages research to analyze and map PPP business models in Africa with an emphasis on financing, engagement and delivery, provision of equipment, licenses and services, risk management, and best practices. Further, the report will bring out the readiness of African nations to embrace geospatial PPPs and create a how-to guide/toolkit for successful geospatial PPPs in Africa. The Committee launched the preliminary survey for the report at the **2nd United National Geospatial Information Congress (UN-WGIC)** held October 10-14 in Hyderabad, India. The PPP Committee had an inperson meeting on the sidelines of the event and reiterated that there are "strong needs and compelling stories" for the development and support of geospatial infrastructure and earth observation sectors with PPPs in Africa. To pursue the quantitative data collection and indepth interviews of African geospatial stakeholders, WGIC participated virtually and in-person at several events in quick succession. These include the 8<sup>th</sup> Session of the UN Global Geospatial Information Management for Africa in Addis Ababa, Ethiopia, Pecora 2022 Conference, Denver, United States, GEO Week 2022, Accra Ghana, and Super Computer 2022 – Earth Science Impacting Africa Conference.

Delivering a keynote at GEO Week 2022, the theme of which is Public-Private Partnerships: A catalyst for local action, WGIC PPP Committee Chair Willy Govender reiterated that it's time for big bets on PPP in the geospatial industry, which finds its utility in a number of sectors including geospatial infrastructure, land administration, urban planning, and property taxation, to name a few. However, PPPs in Africa will need to consider the ability to capacitate African companies in delivery, and the PPP business models need to consider the cultural nuances within the African business ecosystem.

Irene Benito, WGIC public-private partnership (PPP) committee member and Senior Manager for European Affairs, Planet, moderated an engaging panel discussion at GEO Week 2022. The theme of the industry track is "Public-Private Partnerships: A Catalyst for Local Action."

Discussing the challenges that PPPs face in geospatial and the way forward, the panel was unanimous about the criticality of PPPs for future economic growth and opined that events such as GEO Week 2022 act as catalysts, creating awareness, communicating and showcasing the right solutions. The panel reasoned that the government's job is to provide public good. To do so, they need to leverage other actors that are driving technological advancements and can provide the public good on the government's behalf.



Irene Benito, WGIC public-private partnership (PPP) committee member and Senior Manager for European Affairs, Planet moderates a panel discussion at GEO Week 2022.

It's time for big bets on PPP in the geospatial industry, which finds its utility in a number of sectors including geospatial infrastructure, land administration, urban planning, and property taxation to name a few. However, PPPs in Africa will need to consider the ability to capacitate African companies in delivery, and the PPP business models need to consider the cultural nuances within the African business ecosystem.

Willy Govender CEO, Terra Analytics & Chair, WGIC PPP Committee



# **UN and Related Entities**

WGIC has had a partnership with the UN Statistics Division (UNSD) since its inception, having been established at the UN Headquarters in 2018. Since that time, WGIC, on behalf of its members, has been participating in UN-GGIM proceedings and actively associating with other UN entities, such as the International Telecommunication Union (ITU). WGIC also continued to provide the secretariat for the UN-GGIM: Private Sector Network (UN-GGIM: PSN) until mid-2022.

Based on the importance of the relationship between WGIC and the UNSD, UN-GGIM and other UN entities, it was decided in August 2022 to create a more formal structure within WGIC called the UN and Related Entities. Dr. Zaffar Mohamed Ghouse, Director - Advisory & Innovation at AAM, was selected as the chairperson, while Derek Clarke acts as an advisor to the Committee.

WGIC participated in the UN-GGIM Twelfth Session held in August 2022 in New York. WGIC organized a side event on 'Digital Twins: Best Practices and Recommendations to Governments and Industry' at this event. The side event was highly successful, with over 100 participants. This was followed by a networking reception hosted by WGIC, OGC, and UN-GGIM: PSN. Since the UN-GGIM 12 session, WGIC has taken the lead role in discussions on the 'future geospatial ecosystem' initiated by the UN-GGIM Secretariat and others.

WGIC was well-represented at the Second UN World Geospatial Information Congress (UN-WGIC 2022), held in October in Hyderabad, India. At this Congress, WGIC organized a side-event on policy considerations and presented the paper, Enabling the Geospatial Ecosystem – Policy Considerations for Governments and Industry. WGIC also presented a paper on DEI at the event.

Further, in October, WGIC participated in the 8th Session of the UN-GGIM: Africa, held in Addis Ababa. November 2022 saw WGIC participate in the 27th Conference of the Parties (COP27) organized by the United Nations Framework Convention on Climate Change (UNFCC) in Sharm El-Sheikh, Egypt.

WGIC will continue to represent the interests of its members in the United Nations in 2023. Further,



working alongside UNSD, WGIC will provide leadership on all 'future geospatial ecosystem' discussions. WGIC will continue to advance its mission to enhance the role of the geospatial industry and strengthen its contribution to the global economy and society by engaging with partners such as the UN and other UN entities.

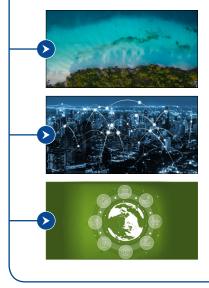


# WAY FORWARD IN 2023

# WGIC IN 2023



2023, will be a pivotal year as WGIC looks forward to delivering a report and a white paper on climate change and strengthen its presence at global climate dialogues.



#### Arab Gulf Program for Development (AGFUND)

Deliver the report "**Climate Action in Africa – Leveraging capabilities** from the commercial geospatial sector" at COP28.

#### Global Covenant of Mayors for Climate & Energy (GCoM)

Create a white paper on geospatial solutions for climate change action at the city level

#### **Global Climate Events**

- May: The Global Conference on Climate Change (GLOC 2023)
- Sep: Climate Week NYC 2023
- Nov: GEO Ministerial
- Dec: UNFCCC COP28

## Advancing global policy matters of relevance

WGIC will work on policy topics such as Metaverse, Spatial Digital Twins and Public-Private Partnerships (PPPs)

#### **Metaverse Report**

WGIC will commission a study on the topic of metaverse to assess how geospatial technologies enable the vision of an open metaverse. The report is expected to be release in fourth quarter of 2023.

#### Africa Geospatial PPPs Report

The Public-Private Parentships (PPPs) Committee is working toward a research report assessing the status and opportunities for PPPs in Africa. The report will be released during second quarter of 2023.

#### Policy engagements and outreach activities

- May: Geospatial World Forum 2023
- Aug: UN-GGIM 13 & UN-GGIM: Africa
- Nov: GEO Ministerial Summit



# **Planned Event Outreach**

WGIC will participate in the following events during 2023

January 8 – 12 January 2023 American Meteorological Society: 103<sup>rd</sup> AMS Annual Meeting Denver, CO, USA

31 January – 2 February 2023 Subsurface Utility Engineering (SUE) Association: Winter Forum Palm Harbor, FL, USA

#### February

**13 – 15 February 2023 Geo Week 2023** Denver, CO, USA

March 6 – 8 March 2023 GeoBuiz Summit 2023 Monterey Bay, CA, USA

#### 13 – 17 March 2023 World Summit on the Information Society Forum 2023

ITU Headquarters, Geneva, Switzerland

23 March 2023 Digital Twins 2023 Virtual Event

May 1 May 2023 WGIC: Member and Partner Retreat/ AGM

Hague Humanity Hub, Hague The Netherlands

2 – 5 May 2023 Geospatial World Forum 2023 Rotterdam, The Netherlands 10 – 12 May 2023 Locate Conference SA, Australia

16 – 17 May 2023 D&I Leaders Global Forum 2023

Park Plaza Victoria London London, UK

21 – 24 May 2023 GEOINT 2023: USGIF St. Louis, MO, USA

#### 23 – 25 May 2023 The Global Conference on Climate Change (GLOC 2023)

Radisson Blu Scandinavia Hotel, Oslo, Norway

#### June

1 – 2 June 2023 Devex World 2023 Washington DC, USA

6 – 9 June 2023 UCGIS Symposium USA

#### July

5 – 7 July 2023 ITU AI for Good Global Summit ITU Headquarters, Geneva, Switzerland

#### August

2 - 4 August 2023 UN-GGIM 13 New York, USA

13 – 18 August 2023 International Cartographic Conference 2023 Cape Town, South Africa 15 August 2023 UN-GGIM: Africa Cape Town, South Africa

#### September

11 – 15 September 2023 World Satellite Business Week Paris, France

18 – 24 September 2023 Climate Week NYC 2023 New York, USA

#### October

10 - 12 October 2023 INTERGEO 2023 Berlin, Germany

#### November

**31 October – 3 November 2023 Global Inclusion 2023** Cape Town, South Africa

30 November – 12 December 2023 UNFCCC COP 28

Dubai, United Arab Emirates

**6 – 10 November 2023 GEO Ministerial Summit** Cape Town, South Africa

#### Member Meetings

14 Feb 2022 Quarterly Meeting Followed by Reception Denver, CO, USA

1 May 2022 Annual General Meeting Followed by Reception The Hague, The Netherlands

October 2023\* Quarterly Meeting Followed by Member Reception Berlin, Germany \* Date to be announced



# **Committees Plans**

# Diversity, Equity and Inclusion (DEI)

- A white paper titled "Diversity in Leadership: Geospatial Industry Perspective" shall be published.
- The second edition of the WGIC DEI Trailblazer Awards will be unveiled in 2023. A new category of award - the DEI Hall of Fame - will be announced.

# Policy Advocacy

- Undertake research on the topic Advancing the role of geospatial data and technologies in metaverse
- This work will build on the spatial digital twins research and report done in 2022.

## Industry-Academia Collaboration

- Explore collaborative opportunities between the geospatial industry and academia, including establishing a repository of academic institutions in the geospatial sector.
- Build a living (online) registry for WGIC members' geospatial offerings (software, hardware, sensors, services, training, etc.) to engage the academia.

## Partnerships & Industry Engagement

- WGIC will collaborate with GCoM for a white paper on geospatial solutions for climate change action at city level.
- Joint events/roundtables to present the white paper and encourage ongoing engagement between WGIC member companies and GCoM-affiliated cities.

## Public-Private Partnerships (PPP)

- Release the Africa Geospatial PPPs report by May 2023.
- Socialize the report to build awareness around developing PPPs in Africa at global conferences including the 31st International Cartographic Conference, UN-GGIM Africa, and INTERGEO 2023.

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ANNUAL REPORT 2022



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