Geospatial Leadership Training & Global Forum

Next-Generation Sustainability: Advancing the Future with Geospatial Intelligence
Empowering Emerging Leaders to Drive the Sustainability Agenda through Geospatial Innovation

Hosted by UN-GGKIC in collaboration with the
University of Melbourne's Centre for Spatial Data Infrastructures and Land Administration (CSDILA)
Melbourne, Australia, 1-3 April 2025

Concept Note and Provisional Agenda

Preamble

The United Nations Integrated Geospatial Information Framework (UN-IGIF) serves as a strategic roadmap for strengthening geospatial information management to support national priorities and accelerate the implementation of the Sustainable Development Goals (SDGs). Developed by the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM), the framework provides a comprehensive approach that integrates governance, technology, and human capacity to bridge the geospatial divide and enhance decision-making for economic, social, and environmental development.

At its fourteenth session (7-9 August 2024), the Committee of Experts reiterated "the importance of strengthening and enhancing national geospatial information management arrangement, capacity, capability and leadership" and in recognizing the transformative role of geospatial information management in national development, the Committee urged "sustained investments in national geospatial programmes." The Committee of Experts noted the impact of emerging technologies and trends on geospatial information management and the need to ensure integrated, efficient, and future-ready geospatial ecosystems. These considerations align with the Global Digital Compact, adopted at the United Nations General Assembly on 22 September 2024, which emphasizes the importance of national digital public infrastructure, of which integrated geospatial information is a key component.

Against this backdrop, the Geospatial Leadership Training Program is designed to directly contribute to these global priorities by equipping geospatial professionals with the leadership skills and technical expertise necessary to drive sustainable development, enhance national geospatial programs, and strengthen digital public infrastructure. This program is an essential step in building the next generation of geospatial leaders who can effectively implement the principles of the UN-IGIF and respond to emerging global challenges.

The United Nations Global Geospatial Knowledge and Innovation Centre (UN-GGKIC) in collaboration with the Centre for Spatial Data Infrastructures and Land Administration (CSDILA) at the University of Melbourne, and CASM will host a Geospatial Leadership Training and Global Forum for Next Generation of Sustainability Agenda event at the University of Melbourne from 1-3 April 2025. This event is supported several international organisations, including FIG, UN-GGIM Academic Network, Private Sector Network, Geospatial Societies, ISPRS, Australian Research Council-RIIS Research Hub, and Geospatial Council of Australia. The event aims to empower emerging leaders to drive the sustainability agenda through geospatial innovation.

Background

In accordance with the Economic and Social Council (ECOSOC) resolution 2022/24 adopted on 22 July 2022 on 'Enhancing global geospatial information management arrangements,' the current priority of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) is to strengthen and enhance geospatial information management arrangements to address national economic, social and environmental priorities, the SDGs and bridge the 'geospatial divide.' In accordance with its Terms of Reference the Committee of Experts provides "the leadership to ensure that geospatial information and resources are coordinated, maintained, accessible and able to be leveraged by Member States and society to find sustainable solutions for social, economic and environmental development."

In August 2023, in making decision 13/101 at its thirteenth session, the UN-GGIM "noted the progress and efforts made to finalize the modalities for the establishment of the United Nations Global Geospatial Knowledge and Innovation Centre in Deqing" and it further noted that the Committee "looked forward to ongoing updates on the operations of the Centres at future sessions of the Committee of Experts." In August 2024, in making decision 14/101 at its fourteenth session, the Committee of Experts "welcomed the establishment of the United Nations Global Geospatial Knowledge and Innovation Centre in China" and further "endorsed the strategic plan of the Global Geospatial Knowledge and Innovation Centre." At the same session, in making decision 14/105, the Committee of Experts also "urged the United Nations Global Geospatial Knowledge and Innovation Centre to intensify its support to Member States to ensure the sustained adoption of geospatial information management capabilities and the operationalization of the Framework in accordance with national circumstances."

The overarching goal of the UN-GGKIC is to work towards the ambitions of implementation of the UN-IGIF set by Member States to develop capacity, promote and support the required innovation, leadership, coordination and standards to develop, strengthen, integrate and deliver national geospatial information policy, data, systems, tools, services and capabilities into their national government development policies, strategies and arrangements. In accordance with its Strategic plan one of the main goal of the Centre is to develop leadership and collaboration, and support countries in advancing, integrating, managing, and using geospatial information resources, leveraging the UN-IGIF for social, economic, and environmental benefits.

The **Geospatial Leadership Training Programme** organized by the UN-GGKIC and CSDILA, is a transformative initiative designed to bridge critical skills gaps in the geospatial sector, empowering professionals with the knowledge and leadership capabilities necessary to drive sustainable development worldwide. Geospatial information management plays a pivotal role in addressing global challenges and the Sustainable Development Goals (SDGs) such as climate, resilience, equitable land access, social inclusion, environmental protection or prosperity. Despite its importance, the sector faces a significant shortage of leaders and skilled professionals capable of leveraging emerging geospatial technologies and methodologies to tackle these pressing issues.

Objectives

This program aims to address these gaps by equipping 150 participants with cutting-edge technical skills, strategic foresight, and leadership insights. The training will adopt a hybrid format, with both in-person sessions and online participation to ensure accessibility and inclusivity, particularly for participants from underrepresented regions and sectors. The program will focus on critical themes, including geospatial trends like GeoAI, Digital Twins, and on-demand ecosystems; the role of geospatial data in advancing the SDGs and climate action; and the integration of ethical, innovative leadership practices within the geospatial domain.

The program provides to the wider geospatial community the opportunity to catalyze impactful capacity building in geospatial leadership, directly contributing to the development of resilient, inclusive societies and empowering professionals to implement sustainable, location-based solutions in their organizations and communities. The proposed training aligns with UN's mission to promote education, innovation, and global sustainable development, ensuring the geospatial sector is equipped to meet the challenges of the future.

Learning Outcomes of the Geospatial Leadership Training Program

By the end of the Geospatial Leadership Training Program, participants will:

- Develop Strategic Geospatial Leadership Skills – Gain the ability to lead geospatial initiatives within organisations, integrating innovation, policy, and governance.
- Understand Emerging Geospatial Trends – Build knowledge on GeoAI, Digital Twins, on-demand geospatial ecosystems, and machine-actionable data.
- Apply Geospatial Intelligence for Sustainable Development – Learn how geospatial data supports climate resilience, land access strategies, and the UN's SDGs.
- Enhance Decision-Making and Problem-Solving – Strengthen analytical skills to leverage geospatial insights in complex decision-making processes.
- Improve Ethical and Secure Data Management – Understand cybersecurity, ethics, and responsible geospatial data governance.
- Bridge the Geospatial Skills Gap – Learn how to apply technical and leadership skills to strengthen national geospatial programs and digital public infrastructure.
- Implement Practical Work-Based Projects – Develop and execute impactful projects that translate course learnings into real-world applications.

Suggested Topics for the Course include:

To further align with these learning outcomes and expand the program's impact, the following topics will be integrated into the sessional training modules:

- Geospatial Policy and Governance – Understanding regulatory frameworks, national geospatial strategies, and policy integration.
- AI-Driven Spatial Analytics – Advanced applications of artificial intelligence in geospatial data analysis and predictive modelling.
- Geospatial Data Interoperability and Standards – Ensuring seamless data integration across platforms and institutions.

- Smart Cities and Digital Twins – Practical applications of digital infrastructure in urban development and resilience planning.
- Remote Sensing for Environmental and Climate Monitoring – Advanced Earth observation techniques for sustainability.
- Geospatial Entrepreneurship and Business Models – Exploring commercial opportunities and innovation in the geospatial sector.
- Geospatial Capacity Building and Human Capital Development – Strategies for addressing workforce challenges and developing geospatial expertise.
- Risk Management and Disaster Resilience Using Geospatial Intelligence – Applications in emergency response, mitigation, and adaptation.
- Future of Positioning and Navigation Technologies – The evolution of GNSS, real-time kinematic (RTK) positioning, and alternative positioning methods.

These topics align with the Geospatial Leadership Training Program's core objectives, ensuring that participants gain a well-rounded, forward-looking education that prepares them for leadership roles in geospatial innovation and sustainable development.

Agenda

The Program will run over three days and includes:

- **April 1-2: Geospatial Leadership Training (Tuesday and Wednesday)**
  - A certified course in geospatial knowledge and innovation led by experts from CSDILA and UN-GGKIC. This first-of-its-kind training empowers participants to become leaders in the fields of geospatial and land administration.
- **April 3: Global Forum (Thursday)**
  - Next-Generation Sustainability: Advancing the Future with Geospatial Intelligence
  - A global gathering of thought leaders from government, academia, and industry. Explore innovative solutions to challenges such as land access for climate action and the advancement of the SDGs. Engage in high-level discussions and share strategies for harnessing geospatial intelligence to build resilient, inclusive societies.

Provisional Agenda

1 week prior arrival	Pre-arrival activity
Pre-arrival activity	What does the future look like? Market trends
	What do you hope to get from the training?
	Work-based project planning: Define "Gaps and Opportunities" in your business context

1 April 2025	Day 1
Opening Remarks	Stefan Schweinfest, Director UN-GGIM Secretariat Statistics Division Pengde Li, Head United Nations Global Geospatial Knowledge and Innovation Centre (UN-GGKIC) Statistics Division
Session 1	Introduction to Geospatial Leadership Training programme • Urgency, skills requirements, multidisciplinary

	Global context • Exploring the Geospatial Revolution: Global Trends and Opportunities Geospatial Knowledge and Innovation • Harnessing Innovation to Shape the Future of Geospatial Intelligence Introduction to Geospatial Ecosystems • Unpacking the Frameworks Driving a Connected Geospatial World
Session 2	Open-source solutions and current technology market • Unpacking the Frameworks Driving a Connected Geospatial World Bridging the divide and next generation geospatial intelligence • Building a Future Where Geospatial Insights Connect People and Progress
Session 3	Future Cities • Designing Resilient, Intelligent, and Sustainable Urban Communities

2 April 2025	**Day 2**

Session 1 and 2	Facilitated work-based project activity
	• Introduction to the activity
	• Successful geospatial project examples
	• Work-based project selection (per table activity)
	  ○ Develop 1-page project plan
	  ○ Panel review and feedback

Session 3	On-demand Geospatial ecosystem • Revolutionizing Access: Scalable, Real-Time Geospatial Solutions Land, climate change and the SDGs • Leveraging Geospatial Data for Sustainability and Climate Action Summary, close and next steps • Reflect, Recharge, and Forge Ahead on Your Geospatial Journey

POST TRAINING: ONLINE REFLECTION: how geospatial innovation will address challenges and create opportunities your business context for selected participants.

POST-TRAINING: COACHING FOR SUPPORT IN EMBEDDING WORK BASED PROJECTS: 2-3 x 1-hour meetings for selected participants.

Participants

- **Participation:** Senior Executives and Managers including: Urban Planners; Environmental Scientists and Climate Change Analysts; Policy Makers and Government Officials; Technology and Innovation Managers; Business Strategists and Consultants; Emergency Response and Disaster Management Officials and Non-Governmental Organizations (NGOs):

- **Focus Areas:** Emerging geospatial trends, leadership in innovation, and practical application
- **Impact:** Strengthening geospatial capacity globally, with a focus on sustainable development and climate resilience.
- **Accessibility and outreach:** Hybrid format for inclusivity, engaging participants from diverse regions, communities and professional backgrounds.

The UUN-GGKIC and the CSDILA seeks UN's support to make this vision a reality, delivering long-lasting impact through education, collaboration, and leadership development in the geospatial sector.

Network and Collaborators

This event is supported by a global network of collaborators and thought leaders in geospatial and land management and intelligence.

Logo	Organization
UN-GGIM ACADEMIC NETWORK	UN-GGIM Academic Network
UN-GGIM PRIVATE SECTOR NETWORK	UN-GGIM Private Sector Network
UN-GGIM GEOSPATIAL SOCIETIES	UN-GGIM Geospatial Societies
Geospatial Council of Australia	Geospatial Council of Australia
THE UNIVERSITY OF MELBOURNE	The University of Melbourne, and Centre for SDIs and Land Administration (CSDILA)
FIG	International Federation of Surveyors
CASM	The Chinese Academy of Surveying and Mapping
RIIS	Resilient and intelligent infrastructure systems (RIIS Hub)
isprs	International Society for Photogrammetry and Remote Sensing

Language

The event will be conducted in English.

Dates

1-3 April 2025

Points of Contact

For local arrangements:

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For meeting arrangements:

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