

# UN-GGIM Academic Network

Tenth UN-GGIM: Europe Plenary - Session 8: Working in collaboration  
23 November 2023

Prof. Maria Antonia Brovelli  
Politecnico di Milano



UN-GGIM | ACADEMIC NETWORK

[unggim.academicnetwork.org](http://unggim.academicnetwork.org)

# UN-GGIM Academic Network

- Coalition of recognized universities, research and education centers or equivalent, involved in the research, development and training on geospatial and land information and related matters.
- Supporting UN-GGIM by:
  - facilitating access globally to research and education capabilities, and
  - respond to challenges and opportunities for UN-GGIM and related UN offices.



# UN-GGIM Academic Network

- 69 members
- 3 associate members
  
- 38 countries



Country	University	Primary PoC
Austria	<a href="#">University of Salzburg</a> , <a href="#">Vienna University of Technology (TU Wien)</a>	Josef Strobl, Georg Gartner
Belgium	<a href="#">Katholieke Universiteit Leuven (KU Leuven)</a>	Joep Crompvoets
Denmark	<a href="#">Aalborg University Copenhagen</a>	Jamal Jokar Arsanjani
Germany	<a href="#">University of Münster</a>	Christoph Brox
Greece	<a href="#">National Technical University of Athens</a>	Chryssy Potsiou & Charalabos Ioannidis
Italy	<a href="#">CNR IREA</a> , <a href="#">Roma Tre University</a> , <a href="#">Politecnico di Milano</a> , <a href="#">Sapienza University of Rome</a>	Paola Carrara, Roberto Bianchini, Maria Antonia Brovelli, Mattia Crespi
Kazakhstan	<a href="#">The Institute of Geography</a>	Dinara Abiyeva
Kyrgyzstan	<a href="#">Kyrgyz State University of Construction, Transport and Architecture</a>	Akylbek Chymyrov
The Netherlands	<a href="#">University of Twente</a>	Menno-Jan Kraak
Portugal	<a href="#">NOVA Information Management School</a>	Marco Painho
Russia	<a href="#">Moscow State Institute of International Relations</a>	Igor Okunev
Serbia	<a href="#">University of Novi Sad</a>	Miro Govedarica
Sweden	<a href="#">Lund University</a>	Ali Mansourian
Spain	<a href="#">Universitat Politècnica de València</a>	Carmen Femenia-Ribera & Gaspar Mora-Navarro
Turkey	<a href="#">Karabuk University</a>	Ismail Rakip Karas
UK	<a href="#">Taylor and Francis Group</a> *	Irma Britton
Ukraine	<a href="#">KNUBA – Kyiv National University</a>	Roman Shults

# Our Objectives

- Promote and **foster collaboration** between universities and research entities/groups to support the operation of UNGGIM-IGIF
- **Encouraging members** to undertake work that is able **to contribute to the UN-GGIM mission and UN-SDGs**.
- Forum of geospatial academics and researchers to **advance competencies and qualifications needed for the UN-GGIM** and supporting Member States;
- Capacity Building and developing an **inventory of international education programs open to and recommended for UN-GGIM** actors.



# Current organization (2023-2024)

## Executive Committee



Chair

**Maria Antonia Brovelli**  
Politecnico di Milano  
(Italy)



Deputy Chair

**Songnian Li**  
Toronto Metropolitan University  
(Canada)



Secretary

**Ivana Ivánová**  
Curtin University  
(Australia)

## Advisory Board



**Abbas Rajabifard**  
University of Melbourne  
(Australia)



**Christy Claudill**  
Carleton University  
(Canada)



**Georg Gartner**  
Vienna University of Technology (TU  
Wien)  
(Austria)



**Saeid Pirasteh**  
Shaoxing University  
(China)

## Regional Representatives



Africa

**Serena Coetzee**  
University of Pretoria  
(South Africa)



Americas

**Rosario Casanova**  
Universidad de la República  
(Uruguay)



Asia-Pacific

**Huayi Wu**  
Wuhan University  
(China)



Europe

**Joep Crompvoets**  
Katholieke Universiteit Leuven  
(Belgium)



**Chryssy Potssiou**  
National Technical University of  
Athens  
(Greece)

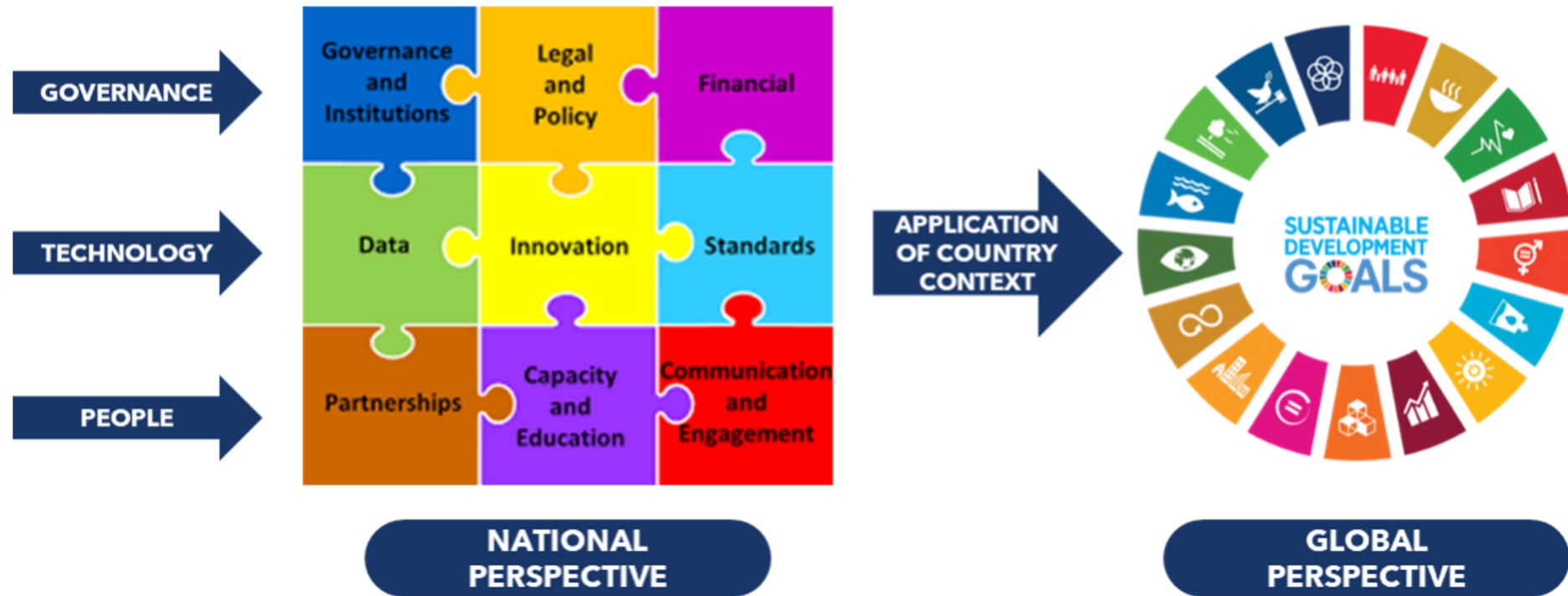


**Michael Starek**  
Texas A&M University-Corpus  
Christi  
(USA)



# Strategic Activities

- Academic Network Contributes across all UN-GGIM IGIF Strategic Priorities and Components



# Strategic Activities

isprs International Journal of  
*Geo-Information*

Submit to Special Issue

Special Issue "Trustful and Ethical Use of Geospatial Data"

- Collaboration and joint activities with other UN-GGIM groups
- Annual UN-GGIM Side-events and Regional events:
  - 12th UN-GGIM Session 2022 "Trustful and Ethical Use of Geospatial Data: the Role of Academics"
  - 2nd WGGIC in Hyderabad, India 2022, "Bridging Academia and Industry in Geospatial Research, Education and Training" (jointly with PSN-GGIM Private Sector Network)
  - 13th UN-GGIM Session 2023, "**GeoAI- Opportunities and Challenges**", jointly with PSN-Private Sector Network,
  - **GeoAI for Good Series**
- ITU's GeoAI for Good series: e.g. Webinar on GeoAI Education, 14th June 2023
- Publications:
  - Book on 'SDGs Connectivity Dilemma', (Open Access), Lunched at UN-GGIM 2019
  - Book on 'Mapping for a Sustainable World' is applicable to IGIF
  - IJGI Special Issue: Trustful and Ethical Use of Geospatial Data (deadline: 31 December 2023)

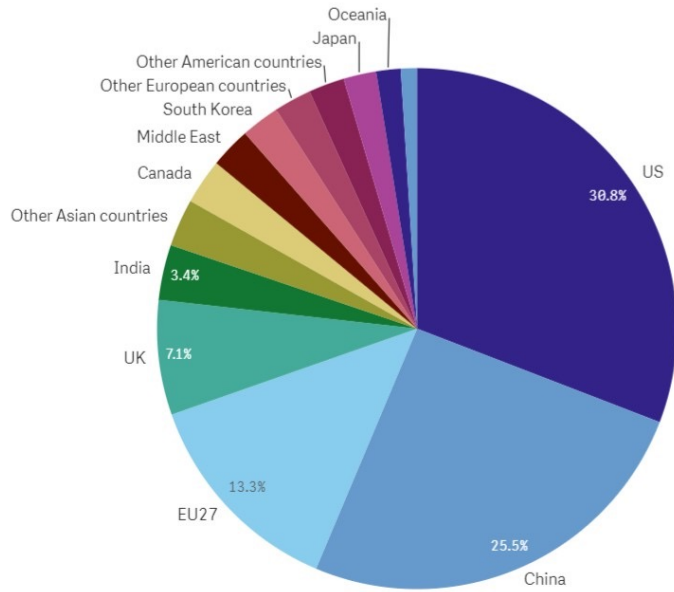




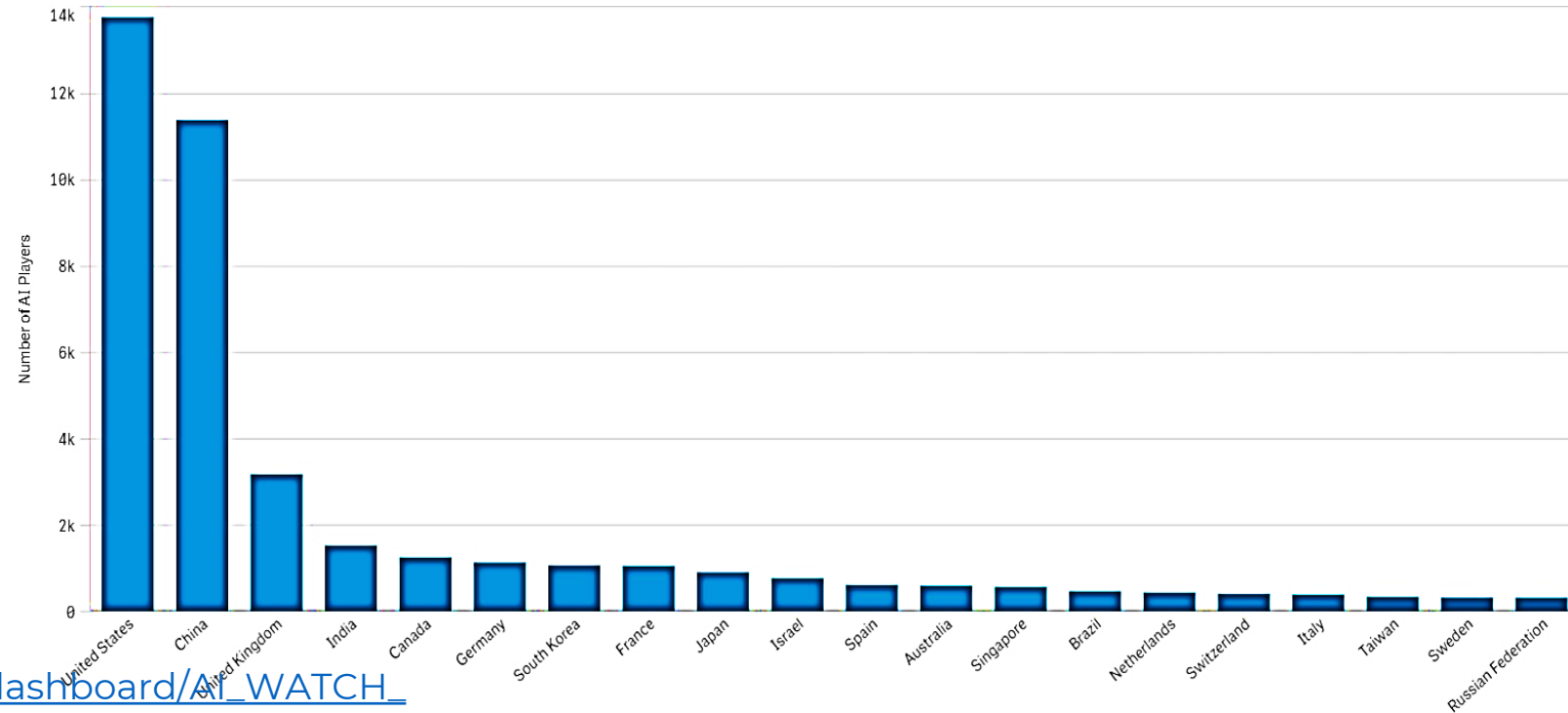
# GEOAI

- Geomatics And Earth Observation Artificial Intelligence

AI Players in the AI landscaper by Country (top 20)



AI Players in the AI landscape by Country (top 20)



[https://web.jrc.ec.europa.eu/dashboard/AI\\_WATCH\\_LANDSCAPE/index.html?bookmark=overview](https://web.jrc.ec.europa.eu/dashboard/AI_WATCH_LANDSCAPE/index.html?bookmark=overview)



# GEOAI



A webinar with panel discussion on [GeoAI Education](#)

Workshop on '[Building a foundation for geospatial AI: defining a syllabus and body of knowledge](#)'

A survey into the importance of GEOAI curriculum conducted in 2023  
Participants: 70 Universities + 169 UN-GGIM Member States

GEOAI Syllabus for Developers

GEOAI Syllabus for Appliers

GEOAI Syllabus for Policy-makers

GEO Body of Knowledge

→ **Side event: 29 May 2023**



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## AI for Good Global Summit

Accelerating the United Nations  
Sustainable Development Goals

Geneva, Switzerland, CICG

30-31 May 2024

REGISTER NOW

# Strategic Activities



## Invitation

### UN MAPPERS MAPATHON IN 2022

The UN GGIM Academic Network and the UN Geospatial Network invite you to participate in a UN Mappers mapathon. A mapathon (literally "map marathon") is a collaborative effort to improve OpenStreetMap data, very often for humanitarian purposes, in places where OpenStreetMap data is scarce or non-existent. During the mapathon, volunteers from various backgrounds get together to remotely map a specific area using satellite imagery or aerial photographs. Anyone can participate in a mapathon, no prerequisite geography or geomatics knowledge is required.

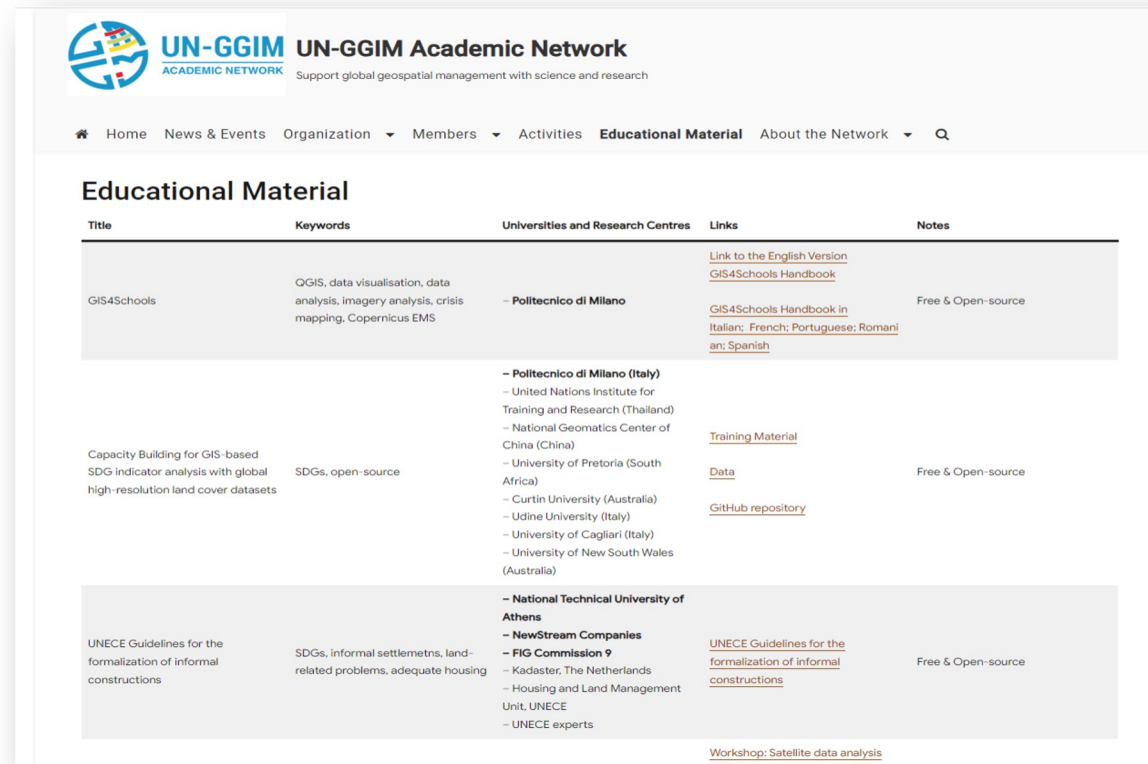
The aim of this mapathon is to raise awareness of UN missions and how they use open data sources for them, and to inspire students to contribute to these efforts. In this UN Mappers activation we are going to map building footprints, supporting UNSMIL to ensure peace in Lybia. The data will be used to deliver a 3D digital replica of the city of Tripoli to allow peacekeepers to remotely visualize and analyze inaccessible locations on the ground, experience different kind of scenarios beforehand, and perform operational planning around a shared simulated sandbox.

Apart from learning how to contribute to data for UN missions, participating in the UN-GGIM Academic Network Mapathon will also give you insight into OpenStreetMap data and for which purposes it could be useful.



# Strategic Activities

- <http://unggim.academicnetwork.org/educational-material/>
- Facilitate access to education via curated collection of resource contributed by UN-GGIM AN's members:



Title	Keywords	Universities and Research Centres	Links	Notes
GIS4Schools	QGIS, data visualisation, data analysis, imagery analysis, crisis mapping, Copernicus EMS	- <b>Politecnico di Milano</b>	<a href="#">Link to the English Version GIS4Schools Handbook</a> <a href="#">GIS4Schools Handbook in Italian; French; Portuguese; Romanian; Spanish</a>	Free & Open-source
Capacity Building for GIS-based SDG indicator analysis with global high-resolution land cover datasets	SDGs, open-source	- <b>Politecnico di Milano (Italy)</b> - United Nations Institute for Training and Research (Thailand) - National Geomatics Center of China (China) - University of Pretoria (South Africa) - Curtin University (Australia) - Udine University (Italy) - University of Cagliari (Italy) - University of New South Wales (Australia)	<a href="#">Training Material</a> <a href="#">Data</a> <a href="#">GitHub repository</a>	Free & Open-source
UNECE Guidelines for the formalization of informal constructions	SDGs, informal settlements, land-related problems, adequate housing	- <b>National Technical University of Athens</b> - <b>NewStream Companies</b> - <b>FIG Commission 9</b> - Kadaster, The Netherlands - Housing and Land Management Unit, UNECE - UNECE experts	<a href="#">UNECE Guidelines for the formalization of informal constructions</a>	Free & Open-source

[Workshop: Satellite data analysis](#)



# Strategic Activities

Capacity Building for GIS-based  
SDG indicator analysis with  
global high-resolution land cover  
datasets

SDGs, open-source

- **Politecnico di Milano (Italy)**
- United Nations Institute for  
Training and Research (Thailand)
- National Geomatics Center of  
China (China)
- University of Pretoria (South  
Africa)
- Curtin University (Australia)
- Udine University (Italy)
- University of Cagliari (Italy)
- University of New South Wales  
(Australia)

[Training Material](#)

[Data](#)

[GitHub repository](#)

Free & Open-source



# UN-GGIM Academic Network – Europe Branch

Tenth UN-GGIM: Europe Plenary - Session 8: Working in collaboration

Prof. Joep Crompvoets

Katholieke Universiteit Leuven (KU Leuven)



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# UN-GGIM Academic Network – Europe branch

- To support the aims and objectives of UN-GGIM (Europe) by facilitating access to European research and education capabilities
- Strong collaboration links with other regions (Americas & Africa, Australia)
- Strong links with EuroSDR, AGILE, EuroGeographics
- Attending annual session of United Nations Committee on GGIM
- Attending annual plenary of UN-GGIM Europe



# UN-GGIM Academic Network Europe – Activities

Recent/Future research related to the following topics:

- Authoritative data
- Geo-ethics
- IGIF – Integrated Geospatial Information Framework
- FELA – Framework for Effective Land Administration
- Data Ecosystems and Spatial Data Infrastructure
- Support EuroSDR EduServ courses

Findings transferred to UN-GGIM Working/Expert Groups





**Thank You!**



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