Background

The United Nations Global Geospatial Information Management (UN-GGIM) at its meeting convened in New York 7-9 December 2015, the Bureau discussed the merits and establishment of an Academic Network under the auspices of UN-GGIM as a means to capture and include the role and contributions of academia in global geospatial information management. It was agreed that the chairs of the Regional Committees would submit an initial list of three to five leading Universities offering geo-informatics programs in their country, and the Secretariat would augment this with a number of leading global University’s with geospatial programs, particularly those that have been strong supporters of UN-GGIM over the past five years.

As a result of the above, an exploratory UN-GGIM Academic Network meeting was convened as a Side Event to the Fourth High Level Forum on UN-GGIM, which was being convened in the UNECA Conference Center in Addis Ababa, Ethiopia, 18-22 April 2016, and was took place from 3:00-5:00pm on Tuesday 19 April. The meeting was co-chaired by UN-GGIM own inaugural Chair of the UN-GGIM Committee of Experts, Dr. Vanessa Lawrence CB, and Mr Greg Scott, the UN-GGIM Inter-Regional Advisor. In this respect it was anticipated that the Academic Network operates along the same lines as the Joint Board of Geospatial Information Societies (JB-GIS) and is able to "self organise" and contributes to the activities of UN-GGIM in a similar and productive manner. During this first Academic Network meeting, its objectives, terms of references and strategic advisory role in the global community were explored.

While originally an exploratory process to gauge interest in the concept of a UN-GGIM Academic Network, the large number of responses and support for the Network thus far has been very encouraging.

Acknowledging the discussion at the first Academic Network Meeting, and referring to the Addis Ababa Declaration at the conclusion of the Fourth High Level Forum, which endorsed UN-GGIM facilitating the establishment of an Academic Network as a strategic knowledge, research and training arm to assist its activities and objectives, UN-GGIM has now formed an Academic Network Task Team, with members from different regions, to assist with the following initial tasks:

1) Draft "ToRs" for the UN-GGIM Academic Network.
2) Suggest a process for membership in the Network.
3) Draft potential roles and responsibilities for members to be an effective and active Network.
4) Prepare an initial workplan and a timeframe for the Academic Network's activities.
5) Prepare and present a report and draft materials of the above tasks at the upcoming sixth session of the UN-GGIM Committee of Experts Meeting in NY in August 2016 for consideration.

Academic Network Task Team

In order to proceed with the formation of the Academic Network Task Team in earnest, the UN-GGIM Secretariat has appointed Professor Abbas Rajabifard, from the University of Melbourne to Chair the Task
Team to start the process and consultation. As a result of this, the Academic Network Task Team has been formed with the following members:

- Prof Abbas Rajabifard, The University of Melbourne, Australia (Chair)
- Prof Huayi Wu, Wuhan University, China
- Prof Joep Crompvoets, KU Leuven, Belgium
- Prof David Coleman, University of New Brunswick, Canada
- Prof Harlan Onsrud, University of Maine, USA
- Prof Menno-Jan Kraak, University of Twente, Netherlands
- Prof Josef Strobl, University of Salzburg, Austria
- Prof Maria Antonia Brovelli, Politecnico di Milano, Italy
- Prof Daniel Páez, University of Los Andes, Colombia
- Prof Jide Kufoniyi, Obafemi Awolowo University, Nigeria

Mandate

Acknowledging the discussion at the first Academic Network Meeting in Addis Ababa in April 2016, and referring to the Addis Ababa Declaration at the conclusion of the Fourth High Level Forum, which endorsed UN-GGIM facilitating the establishment of an Academic Network as a strategic knowledge, research and training arm to assist its activities and objectives, UN-GGIM has now formed an Academic Network Task Team, with members from different regions, to assist with the following initial tasks:

Terms of Reference (ToR)

Objectives

The main objective of the UN-GGIM Academic Network is a platform for the academic community to provide input and to support UN-GGIM in achieving its vision and goals by generating a platform for academic community to input to the UN-GGIM process. This input is to be in the form of strategic knowledge, research, education and training input and be a strategic arm to empower UN-GGIM to achieve their vision and goals.

The network will provide both research and education capabilities for UN-GGIM and affiliated members to identify and respond to challenges and opportunities in which UN-GGIM and related UN offices can achieve their visions. The UN-GGIM Academic Network will be a 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.

Functions

The functions of the Academic Network will be to:

(a) Provide strategic knowledge, research, education and training input and be a strategic arm to empower UN-GGIM and its related organizations and affiliated members to achieve their visions and goals;

(b) Provide a forum for coordination and dialogue among academics and researchers from the geospatial information management community with a view to advance activities related to the administration, management, and use of geospatial information, and to identify and respond to challenges and opportunities in which UN-GGIM and related members can achieve their visions;
(c) To advise and support geospatial information and land administration teaching and capacity building programs of the UN-GGIM;

(d) To offer advise based on UN-GGIM questions or on Academic Network initiatives when we see a gap and inform UN-GGIM of that gap/problem;

(e) Bring to the attention of UN-GGIM and its regional organizations state-of-the-art research and academic trends on global geospatial information, or write white papers on any of related topics, and also offer training/education in those fields;

(f) Create a platform for member countries to bring to the attention of the Academic Network key problems and areas of research that are of high interest to local, national and regional organizations;

(g) Address governance, data management, institutional, technology adoption and sustainability issues related to the management of geographic information;

(h) Undertake work that is able to contribute to the Sustainable Development Goals of the UN and other areas as appropriate including, access to land, property rights, ownership, land degradation, rapid urbanization, and climate change, in coordination with other expert entities;

(i) Undertake activities that foster collaboration between universities and research groups at an international level, including to identify and address common research topics and overarching trends;

(j) Promote and encourage close collaboration between Universities and their national geospatial counterparts; and

(k) Encourage the development and sharing of geospatial analytics.

Membership, Composition and Terms of Office

(a) This Network will be comprised of relevant universities, academic institutions or research centres (as members) where geographic information, and or land administration research and/or education are carried out. To be qualified for membership, each institution member must have an established track record.

(b) Members may be involved in matters relating to surveying, photogrammetry, remote sensing, mapping, cartography, computing, geospatial analysis, web geo-services, socio-economic and environmental modelling, as well as application areas such as infrastructure design and development, water, agriculture, forestry, geology, hydrology, land administration, market research, urban planning, transport, and research on the legal and institutional issues associated with the management of geographic information as well as the use of relevant technologies. In order to become a member, an Expression of Interest (EoI) with a statement on the capabilities and availability to respond to UN-GGIM academic and research support needs should be submitted to the Academic Network Secretariat. The EoI for membership shall be under the signature of the institutional applicant’s chief administrator (or person holding a similar title), and shall include a description of the applicant’s present programs and future plans in education and research related to geographic information science. The application must describe how the institution will contribute to the objectives of UN-GGIM and should include descriptions of any relevant academic programs, courses, research, and public service activities contributing to the advancement of geographic information science at the institution.

(c) A country could have more than one institution accepted as members in the network. However, each University or research institution would nominate one lead academic delegate and up to 2
total delegates to the network. ((NOTE: OR is this meant to be “up to 2 further delegates to the network”)) The lead academic would coordinate interaction between the network and other academic and research staff within its institution.

(d) The membership is free of charge.

(e) The Academic Network will elect a Chair and a co-Chair and a secretariat for the operation and coordination of the Academic Network. The Chair, co-Chair and secretariat should represent a different UN-GGIM region. Each will serve for a two-year period, renewable once for an additional one year. The Chair and the co-chair will meet at least once a year.

(f) The Chair and the co-chair make executive decisions regarding network management, coordination and memberships and shall review applications for individual institution memberships.

(g) A member may withdraw from the Academic Network upon informing the Chair or Secretariat with a thirty days’ written notice. Such notice will be delivered electronically.

(h) The Academic Network will meet regularly at the UN-GGIM Committee of Experts, High Level Forum, and any formal meetings. If considered appropriate, the Academic Network will establish sub-regional groups in line with UN-GGIM regional committees and or task teams to focus on particular aspects of the programs under its oversight. The Network may meet at any UN-GGIM regional groups meetings. The Academic network should have one committee for each UN-GGIM Expert Groups and Working Groups. The chairs of these committees would be elected by the network members with one vote per member cast typically by the lead delegate. As part of the responsibilities of the memberships, each network member should register and be part of at least one committee.

(i) The Academic Network will liaise as required with other international (academia) groups and non-government organizations that may have an interest in the management of geospatial information to support the implementation of the Sustainable Development Goals.

(j) The Academic Network will review, and if appropriate, revise its Terms of Reference every two years, and in conjunction with a change in Chair and co-chair.

Specific activities

To achieve these objectives, the Academic Network’s initial workplan will focus on the following

(a) Inventory of current capabilities, training programs, MOOCs, facilities, current projects, ... relevant to UNGGIM activities

(b) Training and research registry

(c) Review of the current UNGGIM WGs’ workplan to identify the areas for support and input

Reporting procedure

The Academic Network will report to the UN-GGIM Committee of Experts and High Level Forum.

Frequency of Meetings

(a) The Academic Network will normally operate virtually and will meet in concurrence with related geospatial meetings, and also officially meet during each UN-GGIM Committee of Experts and High Level Forums.
The UN-GGIM website, Skype, WebEx, Google Drive and DropBox, in addition to other relevant telecommunication tools will be used by the Academic Network for communication, collaboration, knowledge management and information sharing and dissemination.

1. **Secretariat (TBD)**

   1.1. In support of the activities of Academic Network a Secretariat will be appointed and in cooperation with the co-Chairs, the Secretariat will coordinate, facilitate and monitor and report on the activities of the Academic Network and its sub-groups, coordinate and prepare the agenda for the Academic Network meetings, and issue notices from the Academic Network and any other support activities deemed necessary.

   1.2. The Secretariat will receive support from UN-GGIM Secretariat for the operation of website and other related processes.

2. **Other items:**

   **Initial Workplan**

   (a) Prepare an "Expression of Interest" form and initiate a campaign to widely inform and engage relevant academia institutions to apply to become a member of the UN-GGIM Academic Network (December 2016).

   (b) Create and update a calendar of training offers or capacity building from network members (March 2017).

   (c) Create a repository of current projects, trends and research ideas, including who is working on what (December 2016).

   (d) Create an online questionnaire for the Inventory of current capabilities, training programs, MOOCs, facilities, current projects, ... relevant to UNGGIM activities (March 2017).

   (e) Create a list of Universities/Research Center to advertise the questionnaire (March 2017).

   (f) First report of the State of Capability related to UN-GGIM and creation of the registry (May 2017).

   (g) Final report of UN-GGIM State of Capability to be presented in NY (July 2017).

**Indicators for success**

- Number of Universities/Research Centers answering the questionnaire
- Number of members involved in the Network