FIG Africa Regional Network
- an academic network for Africa

Jennifer WHITTAL
Africa Regional Network
Top-down approach through existing networks ...

- **In Africa**
  - ARUA: African Research Universities Alliance - arua.org.za
  - AAU: Association of African Universities
    www.aau.org – high level collaboration
  - PANGeA: Partnership for Africa’s Next Generation of Academics

- **Collaboration ‘Out-of-Africa’ with Africa**
  - AGNESS: African-German Network of Excellence in Science
  - AAUN: Australia-Africa Universities Network

- **Political:** African Union (AU) - New Partnership for Africa's Development (NEPAD)

Or ....
Bottom-up approach through member (professional and academic) associations ...

- Identify domain-specific champions
- Link individuals – determine short term collaboration goals e.g. prepare papers for FIG WW Ghana 2021 and FIG Congress Cape Town 2022
- Report on goal achievement
- Extend network

Or ....

Hybrid ...

- Link the champions NOW, collaborate in the short term
- Identify support through the existing networks MEDIUM TERM
What are the needs – results of a poll in Botswana:

**Academics**

<table>
<thead>
<tr>
<th>Curriculum review and standardisation</th>
<th>Exchange</th>
<th>Industry and academia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update content; modernize equipment; standardize curriculum across Africa; more practicals</td>
<td>Staff and student exchange programmes</td>
<td>Industry and academia</td>
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**Industry and academia**

<table>
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<tr>
<th>Networking</th>
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<td>Transitioning: into prof practice and from employee to business partner – planning for partnership</td>
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**Academics**

| Knowledge development...
<table>
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<th>Tech theory and skills</th>
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<td>Funding</td>
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<td>Commissions</td>
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<tr>
<td>Communications...internal to geomatics</td>
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<tr>
<td>Marketing and awareness</td>
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<td>Mentoring</td>
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A vision for an academic African FIG-affiliate community

• Database of African academics in FIG member institutions
• Under the ARN banner
• Teaching
  – Identify common teaching areas to facilitate sharing
    • Notes, slides, workshop material etc.
    • Other resources such as curricula
• Research
  – Identify common domains of interest from online research profiles
  – Identify one paper to collaborate on and present paper at an FIG conference

FIG ARAN:
FIG Africa Regional Academic Network?
(aka FIG YSAN)
Domain-specific champions:

- Specific technology e.g. drone surveying?
- Land administration, cadastral systems, land development, and delivery of secure land tenure?
- Reference systems and CORS networks – AFREF?
- Offshore and coastal environments?
  - LWM and HWM determination
  - Height datum determination on (geoids) and offshore (hydroids of LAT)
  - Hydrographic surveying
- Other?
Challenges

• **Expense** of academic membership – € 500 for 4 years
  – Roughly a 1/10 of the per capita salary in sub-Saharan Africa*
  – Roughly a 1/52 of the per capita salary in Europe & Central Asia**
  Much more costly for departments in Africa compared to other real costs – we cannot use the academic membership as a selection criterion

• Low and insecure salaries mean many academics also **practice** as land professionals – little time for research


Challenges

- **Internet connectivity** is poor and hinders
  - cloud computing, cloud storage and sharing of data
  - online meetings e.g. skype
  - access to data, papers, information
  - academics rely on private cell phone data bundles - expensive

- **Behind in the digital age**
  - much information is not digital – e.g. cadastral data
  - data is not current or complete hindering research

* https://data.worldbank.org/region/sub-saharan-africa-excluding-high-income?view=chart

Challenges

• Languages
  – Many local languages
  – National languages:
    • French
    • English
    • Portuguese
    • Arabic
Proposals

1. FIG RNA proposed 3 workshop thrusts for this term – one is on an FIG ARN Academic Network in conjunction with Comm 2; lead by J Whittal
   - Hybrid approach
     • Use the data we have available and contact individuals
     • Identify champions and collaboration domains & aim for achievable short-term outcomes
     • Seek support through international academic networks
     • Work incrementally towards the long term vision: lecturer swaps, student exchanges etc.
Proposals

2. Differentiated fees for academic membership of FIG:

- The fee currently payable by academic members is **500 € per four years**. If a member prefers to pay annually, the fee is **250 € per year**. Academic members from countries listed by the World Bank as upper-middle-income economies shall pay **310 € per four years**. If such a member prefers to pay annually, the fee is **160 € per year**. Academic members from countries listed by the World Bank as low-income economies or lower-middle-income economies shall pay **125 € per four years**. If such a member prefers to pay annually, the fee is **65 € per year**.

- Submit a **formal proposal to FIG** ahead of budget cycle 2020
Proposals

3. ARN Working Group on Geodetic Networks for Africa
   – will provide an opportunity for overlap with the ARN Academic Network in the production of collaborative pan-African papers for FIG2021-FIG2022
   – partner with UNGGIM and Positioning and Measurement: Commission 5
   – lead – Stephen Djaba with Eldar Rubinov and others