Update: ups and downs of a RISE network

L.A. Cornish (Director)
So what has AMSEN achieved since 2009?
Students

7 MScs level and 6 PhDs awarded
Graduates back working in their institutes
8 PhDs in progress; 3 MSc levels in progress
More identified
Students

And......

We have our 5th female student on board!
Students

All AMSEN graduates still in Africa, apart from OJ Dada who is undertaking his PhD in Hong Kong!

7 MScs level and 6 PhDs awarded
8 PhDs in progress; 3 MScs in progress

More identified
Students

1 PhD Researcher
7 MScs awarded
8 PhDs in progress
3 MScs still working on corrections
8 PhDs in progress
1 PhD awarded
4 students did not complete:
Won a prestigious scholarship but not awarded
Absconded
Failed proposal
Failed courses after not being accepted

7 MScs level and 6 PhDs in progress; 3 MSc levels in progress
Graduates back working in their institutes

8 PhDs in progress

More identified on to the research programme

Students
Reasons?

• Huge variability in student ability

• Huge variability in the expected work requirements
Personnel....

1 mini post-doc (non AMSEN funds)
Access to equipment

Access has worked quite well (difficulties in “long access” now at Wits)

U. Botswana (SEM), Wits (TEM, XRD, DTA)
Tshwane University of Technology (TUT) (Dr Peter Olubambi)
Nelson Mandela Metropolitan University (NMMU) and
National Metrology Institute of South Africa (NMISA)

have provided facilities to non Node students.
Access to equipment

Huge problems with electron and occasional difficulties in long-term use of working SEMs. Wits has had no working SEMs for 6 years. TEMs at the University of South Africa (NMISA) and Dr Peter Olubambili have provided facilities to non-NXRD since January 2013.

Access has worked very well at Drs D. Drasbum and Kolbe's U. Botswana now have working SEMs (von microscA) through TEMsil (von microscA) and the University of Tshwane (TUT). Nelson Mandela University of Tshwane, the Metropolitan Institute of Tshwane, and the University of Pretoria (UNISA) are enjoying very good usage of equipment.
Access to equipment

Another company helping U. Botswana

Wits now has more X-Ray diffractometers!

Wits “New” SEMs now working, but restricted to unmounted samples

Electron back-scatter detector mounted on an 2\textsuperscript{nd} hand SEM

Wits getting an electron micro-probe analyser (EPMA) – May 2014

Wits Engineering now has its own SEM – pay a small amount

U. Botswana now has 15 electron microscopes!
Publications... at least

16 journals, 33 conferences, 4 conference presentations, 1 provisional patent
Publications... at least

1 journal paper rejected; 1 conference nearly rejected; provisional patent "let go"

16 journals, 33 conferences, 4 conference presentations, 1 provisional patent "let go"
Staff development

Several academic promotions, no one leaving?

Good recognition: awards, fellowships
Staff development

1 academic did not come? 1 moved to South Africa but is still “flying the flag”

Several academic promotions, no one leaving

Good recognition: award, fellowships
Legacy so far.....

• Students trained and back in their home institutions (1 in Hong Kong)
• New research
• Network built up → lives on in the students
• Networks larger than 5 original Nodes:
  + 1 in Kenya; + 1 in Nigeria; + 1 in South Africa
• Recognition! But disappointment when cannot allow other institutions to join
Bad - tensions

Two extremes:
Wits:
• Pays bursaries
• Pays fees (more expensive)
• Accepted students from 3 other Nodes

Some of the other Nodes accept their staff:
• No bursaries
• No / small fees

Location of the Secretariat
Sustainability issues...

• Concern regarding funding across boarders...
• Each country favours its own...
  – CoE-SM criticised for using AMSEN funds for non-SA students
• South Africa becoming more favorable to funding cross boundaries?
• South Africa expects saleable products more quickly! → ....IP issues....
Thank you!

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