



Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Australia 6-10 April

Beyond Boundaries: A Case for Collaboration for Surveying Education in South Africa

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PLATINUM SPONSORS



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1. **Brief History & Background**
2. **Current Situation**
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4. **Conclusion**



1. Brief History

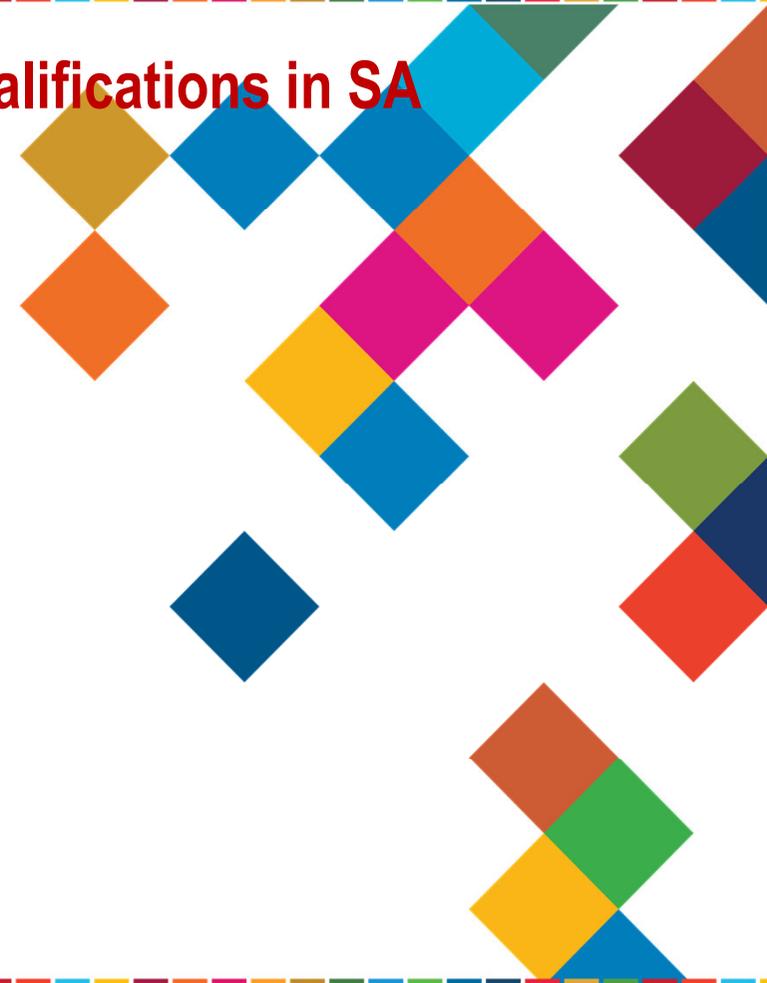
In 1834, the Cape Colony government decreed that land surveyors should only be allowed to practise after completing a qualifying examination set by the Surveyor- General

In that year, in the Cape, examinations were introduced for persons who wished to qualify for the right to practise as Land Surveyors

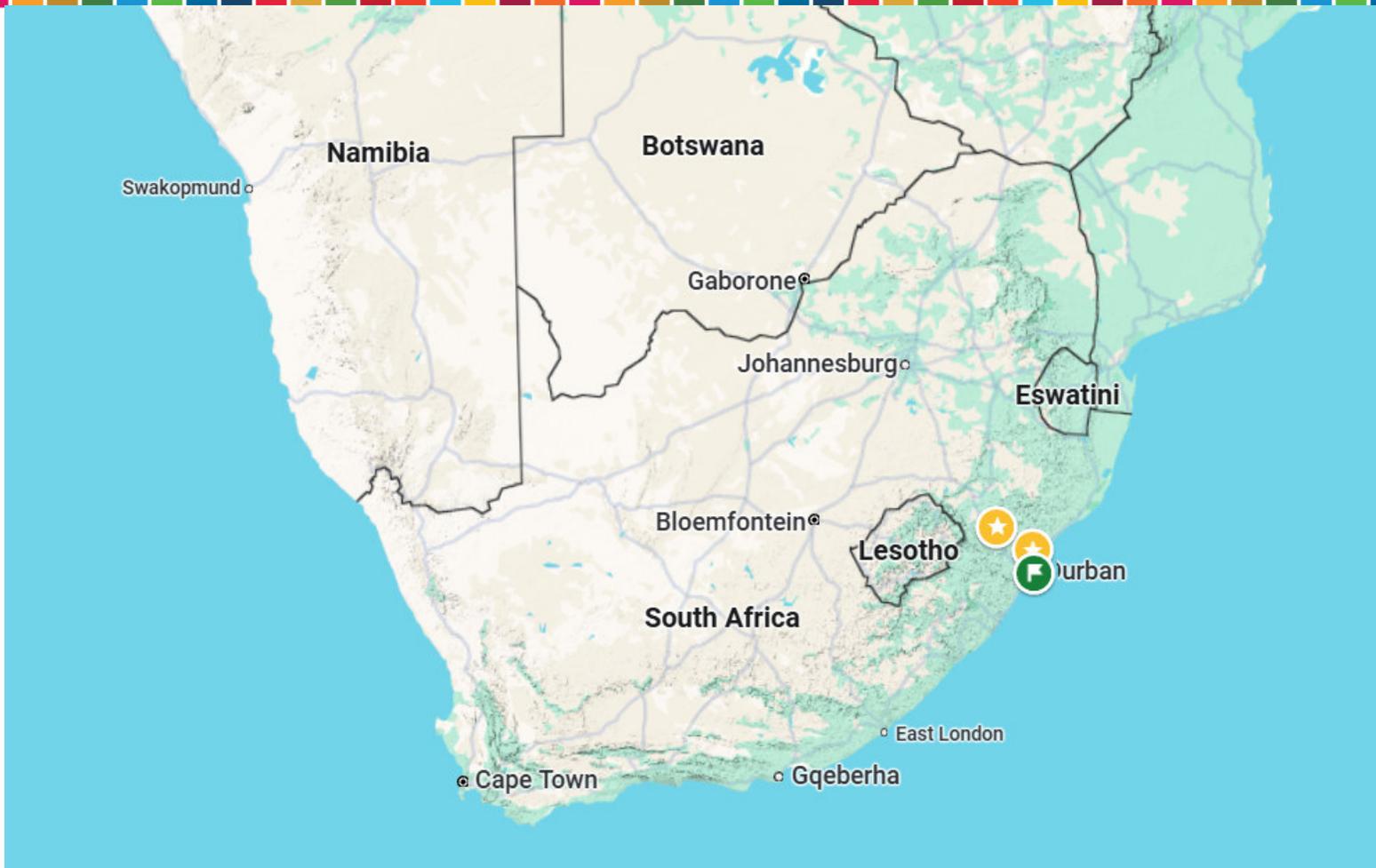
This was specifically *an assessment of competence* and not formal education.

Formal education of surveyors in South Africa dates back to 1878 at the Diocesan College, Cape Town, which formally became *University of Cape Town* in 1918

2. Higher Education Institutions Offering Geomatics Qualifications in SA



WHERE



3 Higher Education Institutions in Durban



3 Higher Education Institutions in Durban



Cadastral Surveying
Engineering Surveying
Photogrammetric Surveying



Engineering Surveying



Engineering Surveying



3. Challenges

Limited resources for equipment purchase

Wide number of subject areas to cover for each qualification

Require a wide range of equipment

Challenging to acquire all the equipment required for practical exercises

ALL working independent of each other!

3. Challenges

Need a Model / Framework which will address:

- i. Legal and Ethical Aspects**
- ii. Inter-Institutional Agreements**
- iii. Training and Support**
- iv. Sustainability**
- v. Stakeholder Involvement**



3. Challenges

Need a Model / Framework which will address:

- i. Legal and Ethical Aspects** clear guidelines for equipment access, usage, and data sharing, ensuring compliance with legal and ethical standards
- ii. Inter-Institutional Agreements** Establish agreements outlining responsibilities, funding mechanisms, and dispute resolution processes
- iii. Training and Support** Provide training for users on how to use the shared equipment and offer technical support to ensure smooth operations
- iv. Sustainability** Develop a long-term plan for funding, maintenance, and upgrades to ensure the platform's sustainability
- v. Stakeholder Involvement** Engage with researchers, university administrators, and funding agencies to ensure buy-in and support for the initiative

4. CONCLUSION

This is an on-going study

Equipment Sharing for training can be a cost-effective and efficient way to enhance skills and knowledge

- but it requires careful planning and organization

4. CONCLUSION

Not about solutions but a challenge to re-look at *the way training equipment is acquired and used in an increasingly cost-sensitive environment*

It impacts on the skills development of training future Geomatics specialists

The most relevant SDGs related to the presentation and theme of this session

1st relevant SDG



4 QUALITY EDUCATION

Icon: An open book and a pencil.

2nd relevant SDG



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Icon: Three interlocking cubes.

3rd relevant SDG



10 REDUCED INEQUALITIES

Icon: A scale of justice.

SUSTAINABLE DEVELOPMENT GOALS

International Federation of Surveyors supports the Sustainable Development Goals

References

Shi, G., Liu, L and Chen, F. 2020. "The Practical Application of IoT for Large-scale Instruments and Equipment Sharing Management Platform," 2020 IEEE 39th International Performance Computing and Communications Conference (IPCCC), Austin, TX, USA, pp. 1-5, doi: 10.1109/IPCCC50635.2020.9391543.

Yao, S, Li, Z., Liu, W. and Cao, Y., 2021. "Functions and practice of instrument & equipment sharing platform for talent training in higher education", Computational Social Science CRC Press, pp. 525-530

Zhu, Y., 2022. "Design and Implementation of the Large-scale Instruments and Equipment Sharing System," 14th International Conference on Computer Research and Development (ICCRD), Shenzhen, China, 2022, pp. 334-339, doi: 10.1109/ICCRD54409.2022.9730176.

THANK YOU

Any questions?



WORKING WEEK 2025

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STEP 1: SELECT HERE THE THREE MOST RELEVANT SDGs
STEP 2: COPY THE SDG INTO PREVIOUS SLIDE

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 	7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	