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# **Better Foresters**

## **Stellenbosch & Forest Industry**

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Department of Forest and Wood Science

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Faculty of AgriSciences






# Introduction

- Universities more involved in society – scholarship of engagement (Boyer, 1996)
  - Teaching, research and community engagement
- Stellenbosch Univ. – community interaction
  - Community – also Forestry Industry
- Department of Forest and Wood Science (DFWS)
  - Enrich industry with scientific knowledge
  - Graduates – forest managers and scientists





# Role of universities

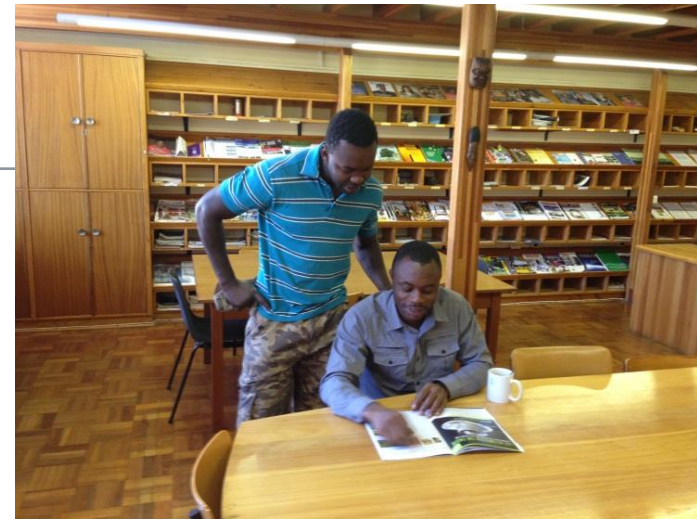
- Medieval Universities
  - Practical “mechanical” disciplines such as agriculture, healing and construction not welcome
- Modern Universities
  - Business of offering broad and critical education – student engage with “real” world
  - Prepare student for suitable career
  - Knowledge  Personal skills
  - Graduate attributes - engaged citizens, dynamic professionals and well-rounded individuals





## Role of universities (2)

- Focus on enhancement of:
  - Interdisciplinary thinking
  - Communication
  - Leadership and teamwork skills
  - Technical knowledge
- Help to clarify career expectations, set professional identity, create employment opportunities, create positive work values
- Important for forestry students – managers early in career

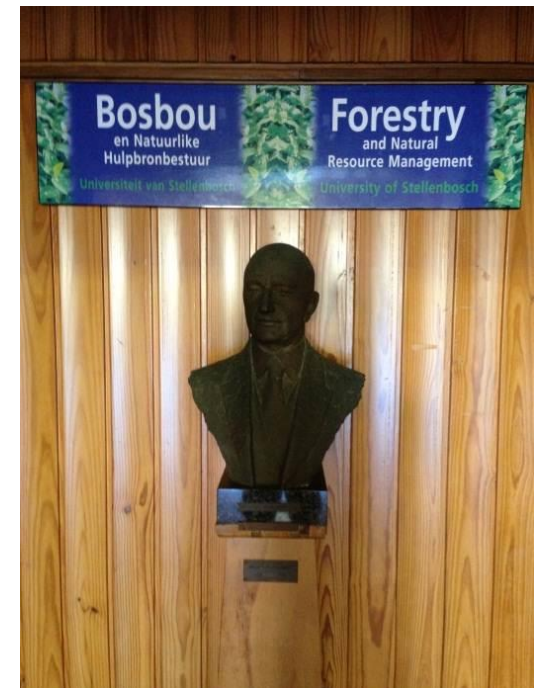




# Industry and Education partnership



- First professional foresters in SA – 1881
  - Trained at French School of Forestry – Nancy
- Tokai School of Forestry since 1906
  - In 1932 Saasveld School of Forestry
  - Nelson Mandela Metropolitan University (2006)
  - Focus on training foresters with practical work experience
  - 9 month Work Place Learning





## Industry and Education partnership (2)



- BSc Forestry degree at Stellenbosch 1931
  - Strong science focus – forestry and wood science
  - Train forest managers and scientists
  - Work integrated learning integrated since inception
    - 1934 – 8 weeks practical work, management plan, collect herbarium specimens of fungi, insect and trees







# Stellenbosch → Industry



- Annual advisory board meetings
  - Show, tell and ask
- Guest lectures from industry
- Lecturers engaged in industry
  - research, consultation
- Student engagement with industry – SFSA, IFSA
- Academic knowledge, technical application focussed on an industry
- Work integrated learning





Year	Module	Activities
I - 4	All modules	Practical and tutorials, case studies, field visits in the surrounding forest areas and guest lectures by industry experts
I	Forest Science 171 (Introduction to forestry)	“One week of practical work in September is to be completed satisfactorily.”
3	Forest Science 354 (Forest growth and yield science)	“One week of practical work in June to be completed satisfactorily.”
3	Forest Science 364 (Timber harvesting)	“One week of practical work (power-saw course) in September of the second year to be completed satisfactorily.”
4	Forest Science 442 (Forestry practical work)	“Three weeks of practical forestry work during the four years of study. Three-week study tour during the winter recess of the fourth year.”
4	*Forest Science 468 (Management plan)	“A study of the total industry or of a chosen or allocated management unit in the industry. A visit of approximately three weeks to the management unit is essential.”
4	*Wood Science 468 (Research project)	“Independent execution of a theoretical and/or practical investigation in any wood science related field, and the submission of a comprehensive research report.”







# Industry → Stellenbosch



- Bursaries
  - Company as well as SETA
- Sponsorships of events
- Recruitment at Stellenbosch
- Assist with practical work
- Research requests
- Willingness to engage
- Induction programmes





# Stellenbosch ↔ Industry



- Positive

- Low number of students
- Quality of students
- Career in forestry
- International networks
- Further studies
- Other careers



- Negative

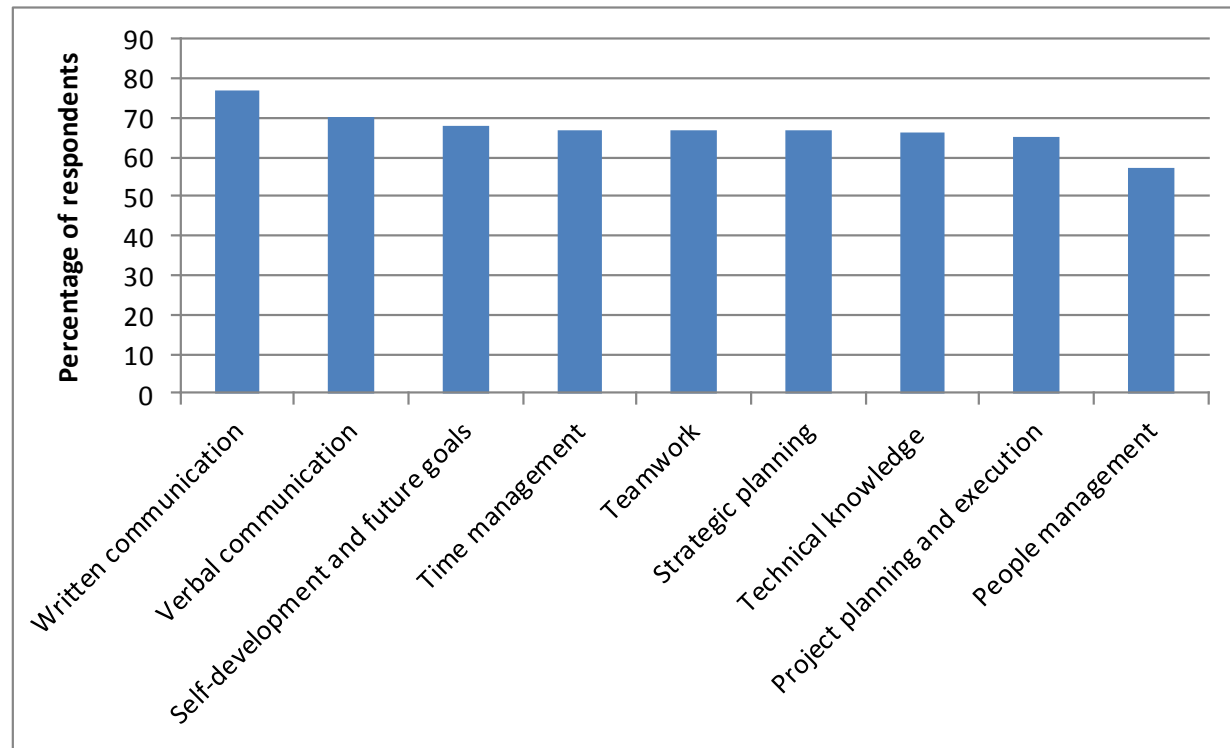
- Quality of scholars
- Practical work placement
  - Drivers licenses
  - Accommodation
  - SHE vetting
- Drop-out rate
- Career development



## Graduate survey – 2010 - 2012



- 67% agreed that BSc Forestry prepared them well for work





# Conclusion



- Forestry business environment becoming increasingly complex
  - Technical skills often second place to qualities such as being able to work well with other foresters and with public stakeholders (Jacobson *et al.* 2008)
- Industry & Education partnership
  - Focus on creating a graduate who can adapt to the complexities of the forestry environment

“ Do you allow innovation and critical thinking”

