









### Report on Engineering Skills Summit 2012

ECSA in partnership with the Department of Higher Education & Training, the merSETA, and SASEE.

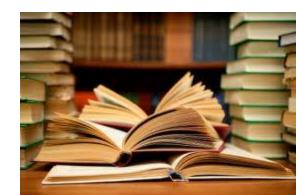


### **Engineering Education Summit**

 In 2011 ECSA conducted research into the barriers preventing engineering students from passing on the 4 year BSc Engineering progam.

What motivated the research?





### An analysis of the 2001 national intake cohort of engineering students at SA HEIs.

	Graduated within 5 years	Still registered after 5 years
4 year Bachelor's (Eng)	54%	19%
National Diploma (Eng)	17%	14%



Scott, I., Yeld, N., & Hendry, J. (2007). A case for improving teaching and learning in South African higher education. Pretoria: Council on Higher Education (CHE) and Higher Education Quality Committee (HEQC), http://www.che.ac.za/documents/d000155/index.php.

### % of Students who graduate from a 4 year BSc Eng programme within 5 yrs

	African	White
4 year Bachelor's (Eng)	32%	64%
National Diploma (Eng)	16%	28%



Scott, I., Yeld, N., & Hendry, J. (2007). A case for improving teaching and learning in South African higher education. Pretoria: Council on Higher Education (CHE) and Higher Education Quality Committee (HEQC), http://www.che.ac.za/documents/d000155/index.php.

### Research identified seven areas to be addressed

- 1. School system
- 2. Student selection
- 3. Engineering Curriculum
- 4. Teaching and learning
- 5. Student support
- 6. Staffing
- 7. Funding





#### Consultation between DHE&T & ECSA

Research findings presented to the Department of Higher Education & Training (DHET) (Dec 2011)

Two further areas to be addressed were identified

- Workplace Integrated Learning (WIL) ........ Nat. Diploma
- 9. Articulation between FET Colleges and Universities









# Engineering Skills Summit Conceptualised

 As consequence ECSA & DHET undertook to host the Engineering Skills Summit in partnership with the Department of Higher Education & Training (DHE&T) during 2012.

merSETA and SASEE



## Purpose of the Engineering Skills Summit 2012

National debate on barriers to student success

Share ECSA's 2011 research report:
 "Throughput study in the Engineering Bachelors Degree"

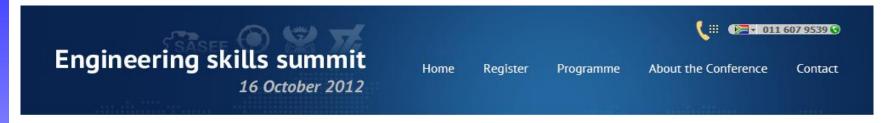
 Develop Recommendations & Resolutions to present to the Minister of Higher Education

Impact Policy & Practice i.r.o. Engineering Education



#### Engineering Skills Conference Website

http://ecsa.dhetconference.co.za/



Development of a national strategy to increase engineering graduate output









Who should attend?



The Venue



Conference Sponsorship & Collaboration





#### Summit Delegates

A total of 230 delegates attended the summit 16 Oct

- Conference Delegates included a wide range of stakeholders:
  - Higher Education Institutions,
  - Further Education and Training (FET) Colleges,
  - industry and commerce,
  - Government department at all three tiers .







#### Message from the Minister of HE&T.

 Dr Engela van Staden was speaking on behalf of Higher Education and Training Minister Blade Nzimande at the 2012 Engineering Skills Summit, in Kempton Park.

- DHET would heed the call to reconsider the funding model pertaining to engineering faculties
- South Africa lagged far behind in the number of engineers proportionate to population, compared with the UK, Australia Brazil, and India.







### Summit Themes and Discussion Groups

1. School system & Student Selection

Prof Almarie van Heerden

2. Curriculum aspects and interventions

**Prof Ian Scott** 

3. Teaching and learning

**Prof Jenni Case** 

4. Student support



Chantyl Mulder & Dr Dianne Grayson

### Summit Themes and Discussion Groups

5. Staffing Dr Allyson Lawless

6. Funding Prof Melck

7. WIL Prof Tshilidzi Marwala & Dr Raymond Patel

8. Articulation Dr Keith Jacobs



### Post Engineering Skills Summit

- Detailed report containing recommendations form each of the eight discussion groups have been received
- Consolidation of the sub report into a comprehensive Summit Report in currently underway.
- The final Summit Report containing recommendations for the Minister of Higher Education and Training Minister Blade Nzimande will be presented during the first week of December 2012.
- Recommendations will influence policy and practice of Engineering education which in turn will lead to increased engineering graduate output.





Thank you - Enkosi - Ha khensa - Re a leboga - Ro livhuwa - Siyabonga - Siyathokoza - Dankie

