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Special-Event:

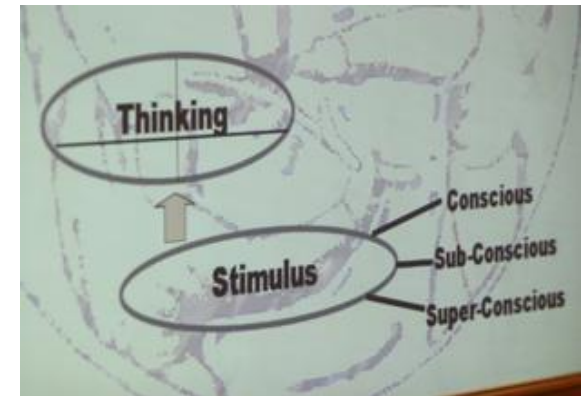
Promoting Doctoral Education in South Africa

*EUA-CDE Annual Meeting
Brescia, 12 June 2019*



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An overview of doctoral studies in South Africa



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1.South Africa – overview of doctoral studies

2.Research relevance and mobility

3.Building capacity

4.Discussions

1. **26** public universities with three different typologies
2. In 2017: publications: **18 872** credit units
3. Health professions, clinical sciences and engineering **25%** of total output.
4. Permanently appointed academic staff: **19 545**
5. Master's as highest qualification: **7049 (36%)**
6. Doctoral as highest qualification: **9032 (46%)**
7. Master's awarded: **8011**
8. Doctoral degrees awarded: **3040**

1. National priorities: **equity & quality**
2. Academy of Science of SA study on the PHD (2010): **recommendations**
3. National Development Plan (2030): **5000+ PhDs by 2030**
4. National Research Foundation's PhD as a Driver: **growing the doctorate**
5. National Qualification Level 10: **skills and competencies**
6. Entrepreneurship / self-employment: **doctorate to prosper economy**
7. Challenges experienced by students: **enrolment, finance, family**
8. Mobility of students: **national and international**
9. Council on Higher Education: **quality review of doctoral standards**
10. Association for African Universities (AAU) – 2063. **The Africa we want**



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GET READY...
GET SET...
GO!

Preparing for your doctoral studies
and doctoral education

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Research landscape in South Africa

- ❑ 26 public universities – all have research intentions and particular research foci/expertise
- ❑ Government subsidies to universities based on research outputs (publications and postgraduate students)
- ❑ Academic staff at SA universities as priority group i.t.o. attaining PhD degrees – low national average of doctorate staff; need improved doctoral supervisory capacity.
- ❑ Emergence of graduate schools for doctoral training (social sciences and humanities); and changing models e.g. PhD by publication and PhD training that includes coursework (non credit bearing)
- ❑ Major research funding instruments: Centres of Excellence, South African Research Chairs Initiative (SARChI); National Equipment Programme (NEP) – Department of Science and Technology (DST)/National Research Foundation (NRF); Department of Higher Education and Training (DHET) grants support research development.
- ❑ Strong focus on the promotion of innovation (for socio-economic benefit)

Unique laboratory in our backyard



- Rocks
- Plants
- Oceans
- *Southern skies*



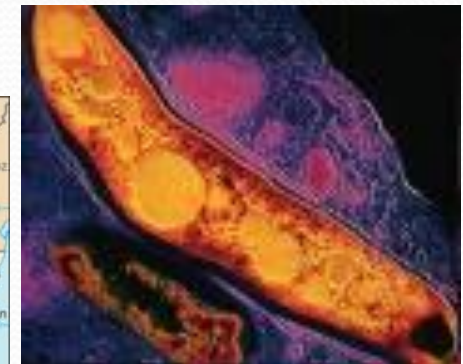
- Diversity & transformation
 - Communities
 - Languages
 - Economies



- Epidemiology



- East-West and North-South axis
- *Data science & 4th Industrial revolution*



Research responsive to national (and international) societal priorities and goals








- National priorities (as expressed in the NDP, the Ten-Year Innovation Plan and other national policy documents) and international priorities (as encapsulated in the SDGs)

“Traditional ways of producing knowledge within single disciplines and institutions are being supplemented by knowledge generated within various applied contexts. ...knowledge that is collaboratively created within multidisciplinary and transdisciplinary research programmes directed to specific problems identified within social and economic systems.”

White Paper on Science and Technology (DACST 1996: 6)

- Similar language, stronger coordination emphasised in the newly adopted White Paper on Science, Technology and Innovation (DST 2019: 21)

TABLE 4.2: STRATEGIC RESEARCH AREAS MAPPED TO SDGS AND NDP THEMES

Research area	SDG	NDP Theme
Agriculture and food security	 <p>2 ZERO HUNGER</p>	An inclusive and integrated rural economy
Climate and the environment	 <p>13 CLIMATE ACTION</p>  <p>15 LIFE ON LAND</p>	Environmental stability
Education	 <p>4 QUALITY EDUCATION</p>	Improving the quality of education, training and innovation
Energy	 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	Transition to a low carbon economy
Health	 <p>3 GOOD HEALTH AND WELL-BEING</p>	Quality health care for all
Water	 <p>6 CLEAN WATER AND SANITATION</p>	

*CREST,
Stellenbosch
University (2019)*

Opportunities for SA-EU collaboration - Cotutelles de thèse

- Draft Policy Framework for Internationalisation of Higher Education in South Africa – yet to be gazetted
- Makes provision for South African universities and international partner institutions to enter into agreements to offer joint degrees
 - typically at PhD level
 - ideally, not once-off arrangements (sustainability of the collaborative relationship as guiding principle)
 - guidance of a supervisor from each of the partner institutions
 - joint thesis examination and defence (award is a joint decision) and
 - award of a joint doctoral degree certificate (or two certificates should one or both of the national systems require this – in EU, this is often understood as a double degree)

Models of current opportunities

- Bilateral agreements between National Research Foundation (NRF) and agencies in Europe, e.g. NUFFIC – NRF split-site awards
- French Embassy support for PhD students to study in France (on a *Cotutelle* agreement with a French partner)
- Department of Higher Education (DHET) staff training agreements (United States of America, United Kingdom) for capacity development in South African Universities – beneficiaries are defined

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Supervisory capacity

- PhDs to train PhDs
- low percentages of academic staff with doctoral qualifications at the various institutions,
- the lack of transformation, and
- the aging cohort of supervisors



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**Universities with more than 50% of their permanent academic staff with
Doctorates (DHET)**

South African University	% staff with Doctorates
University of Cape Town	64
University of Stellenbosch	56.2
Rhodes University	53.1
University of the Western Cape	56.8
North West University	52.4
University of Pretoria	65.5
University of KwaZulu-Natal	50.6
University of Witwatersrand	65

PhD mobility

- Brain drain vs Brain circulation (international and national)
 - requires student & academic staff mobility
 - joint supervision & co-badging of degrees
 - cooperative research projects – international vs the problem at home



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SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



<https://www.un.org/sustainabledevelopment/blog/2015/12/sustainable-development-goals-kick-off-with-start-of-new-year/>

Family/Social/Financial

- First generation university students
- What does this mean for SA PhD targets, especially in terms of equity and diversity?
- What does this mean for international exchange?
- Historical Student Debt
 - Hinderance in the Pipeline of PhD production
- Financially needy vs Excellence funding
- Funding for female academics, PhDs



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Discussions & questions?

Find out more at:

<https://yebo.cut.ac.za>



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