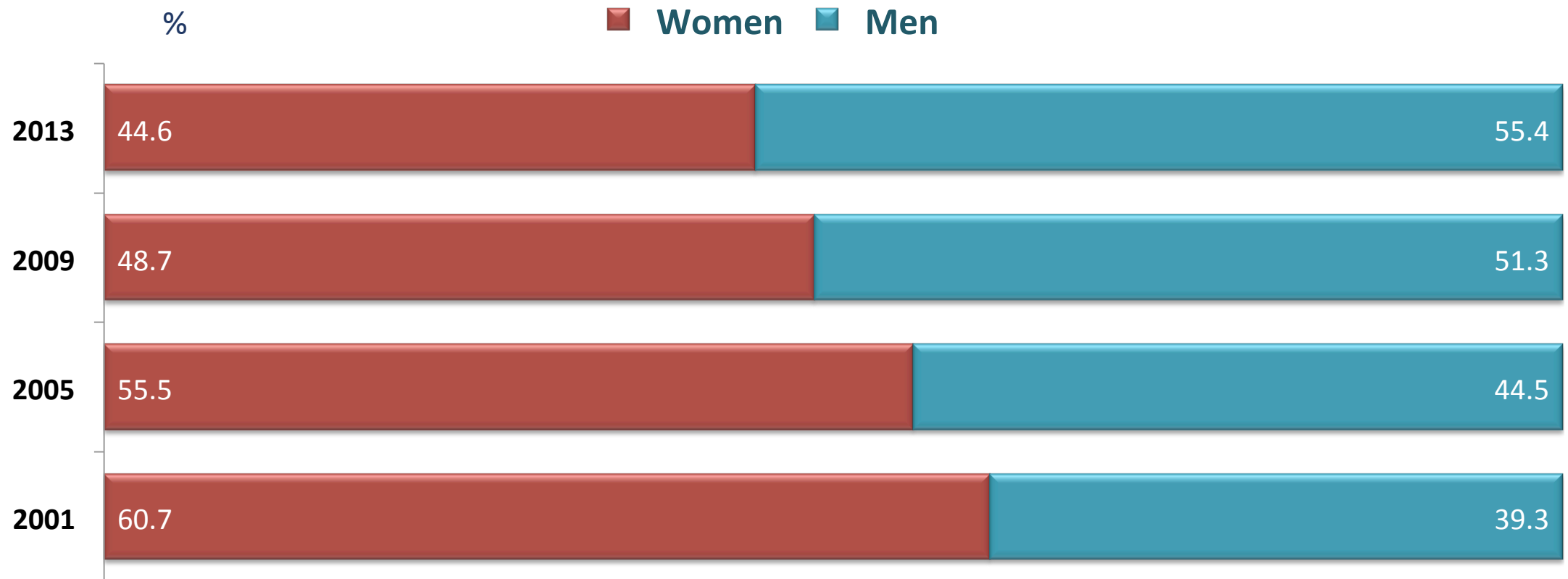


PARALLEL PANEL SESSION
TOPIC B: LEARNING FROM
AND OVERCOMING GENDER
DISPARITIES THROUGH
RESEARCH

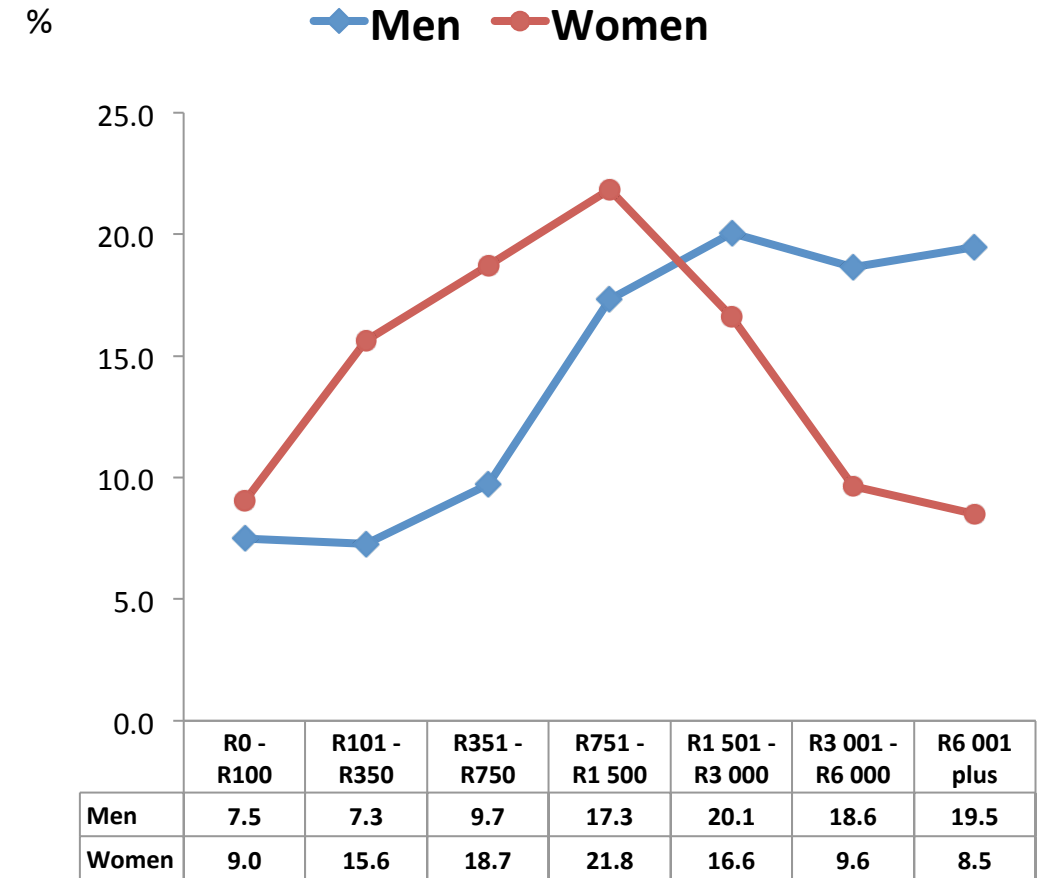
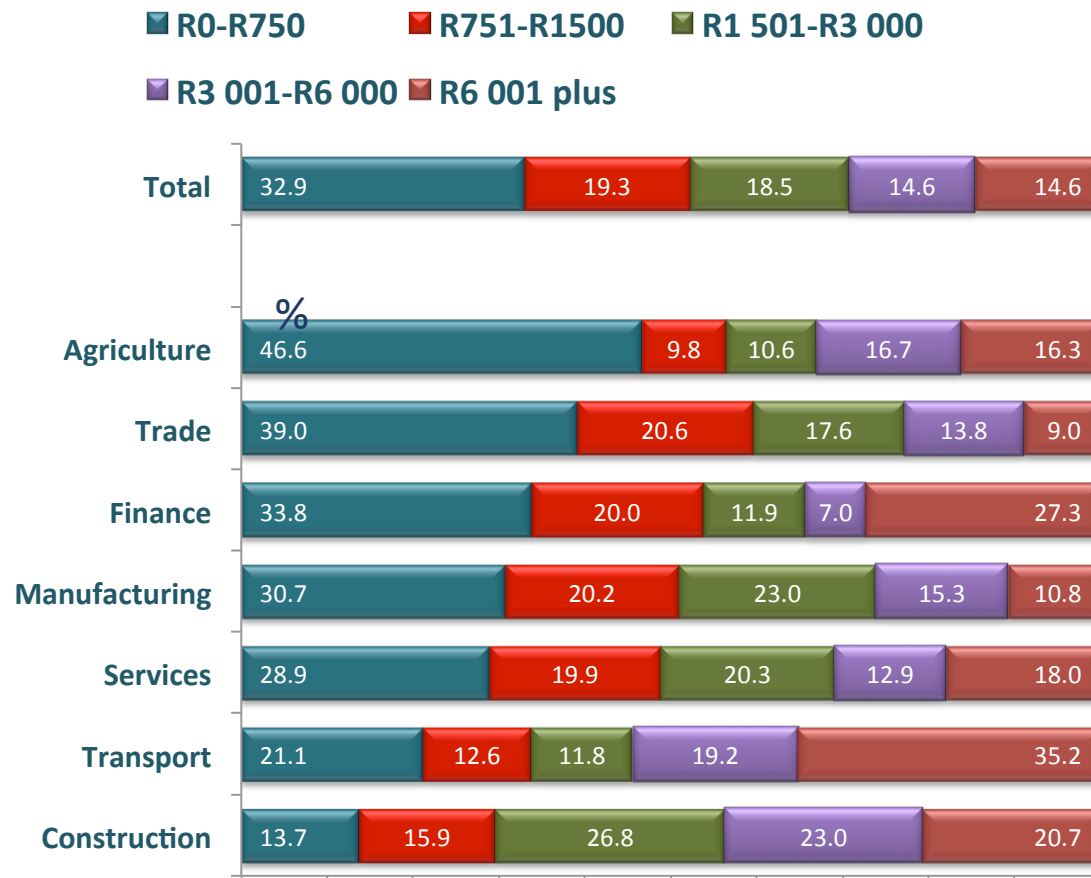
Engineering the physical to power relations

Pali Lehohla
Statistician-General South Africa

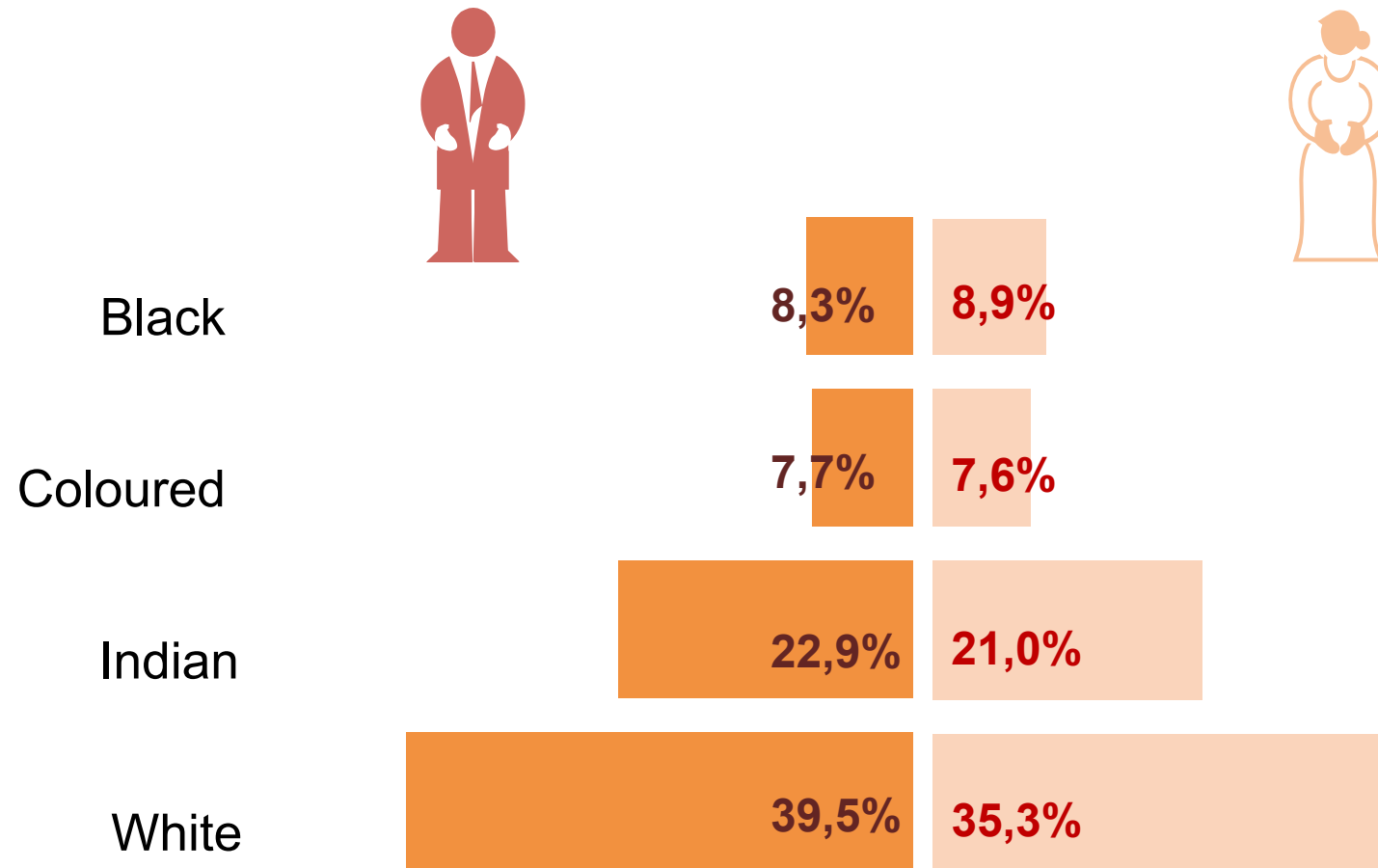
Non-VAT registered businesses



Non-VAT registered businesses. Turnover in the past month, 2013



Gender gap in tertiary attainment most pronounced among the white population group



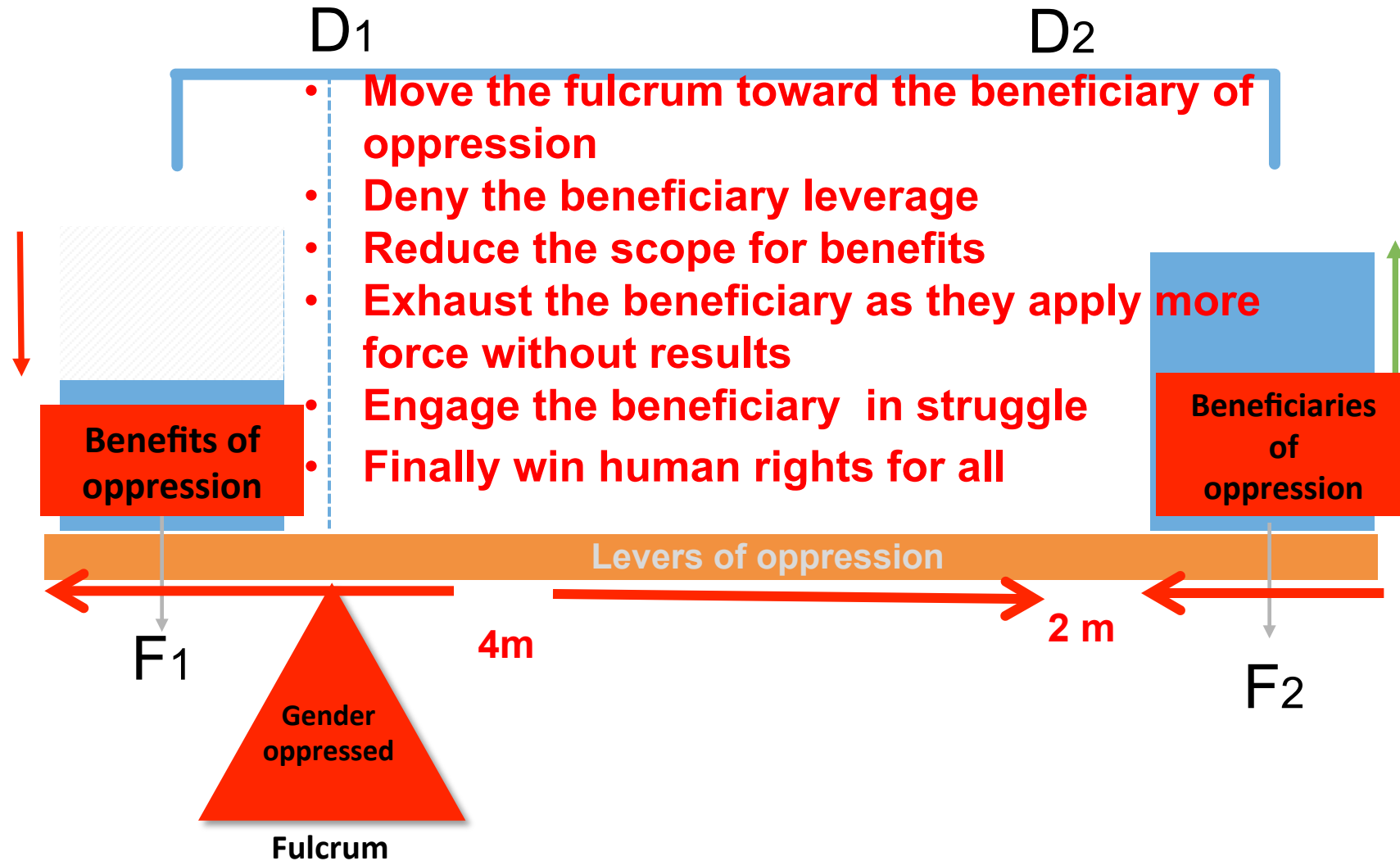
Gender Statistics innovations in South Africa

- Statistics South Africa has extended its gender programme to align with the regional integration agenda and is in discussion as regards the African Gender Development Index (AGDI) through the Evidence and Data for Gender Equality (EDGE).
- Aside from gender indicators, consideration is also given to the methodologies that should be followed in order to ensure optimal conditions during data collection where women feel safe with the data collector and are free to provide honest responses.

The outcomes of EDGE

- Accelerate existing efforts to develop internationally comparable gender indicators on;
 - Health
 - Education
 - Employment
 - Entrepreneurship, and
 - Asset ownership

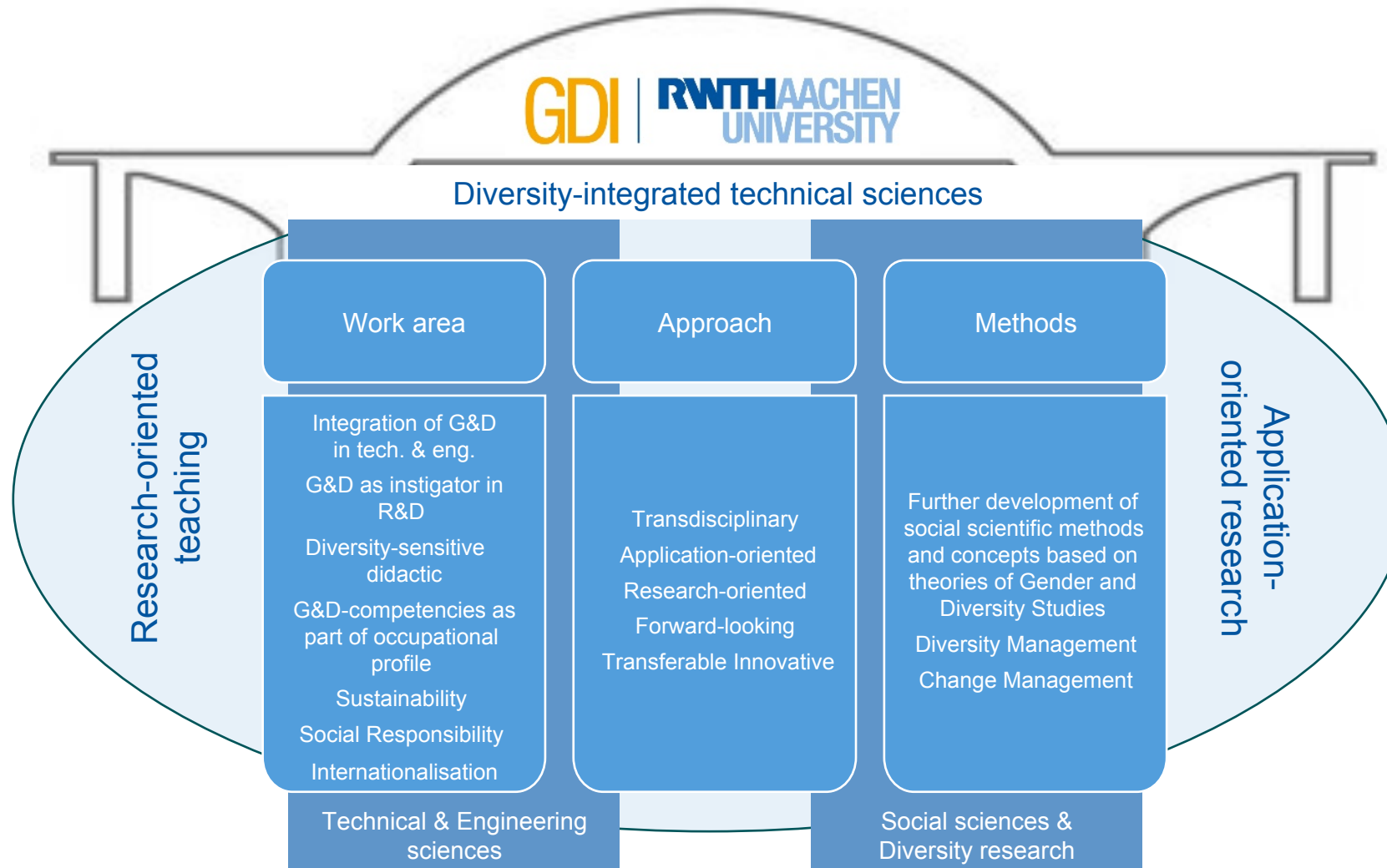
Change the Paradigm



Socially responsible research in engineering: Solutions fit for all!

Prof. Dr. Carmen Leicht-Scholten
RWTH Aachen University

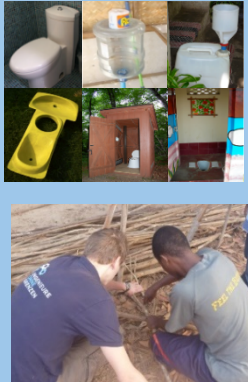
Being a change agent: Bridging Professorship Gender and Diversity in Engineering (GDI)



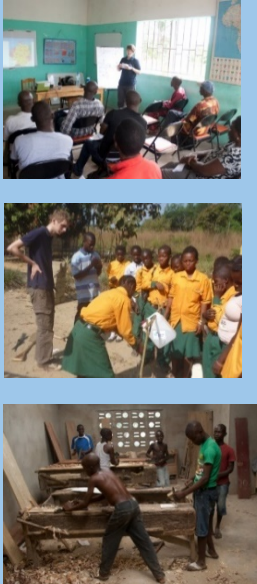
Fostering socially responsible research and development for sustainable solutions.

Case Study: Urine-Diverting Dry Toilets – Sierra Leone

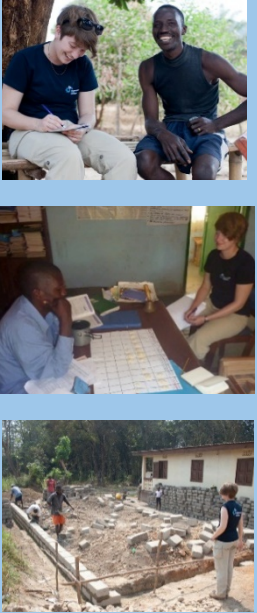
Technological sustainability



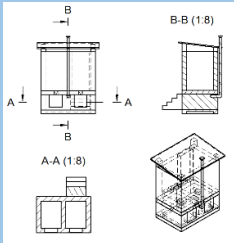
Social sustainability



Cultural acceptance

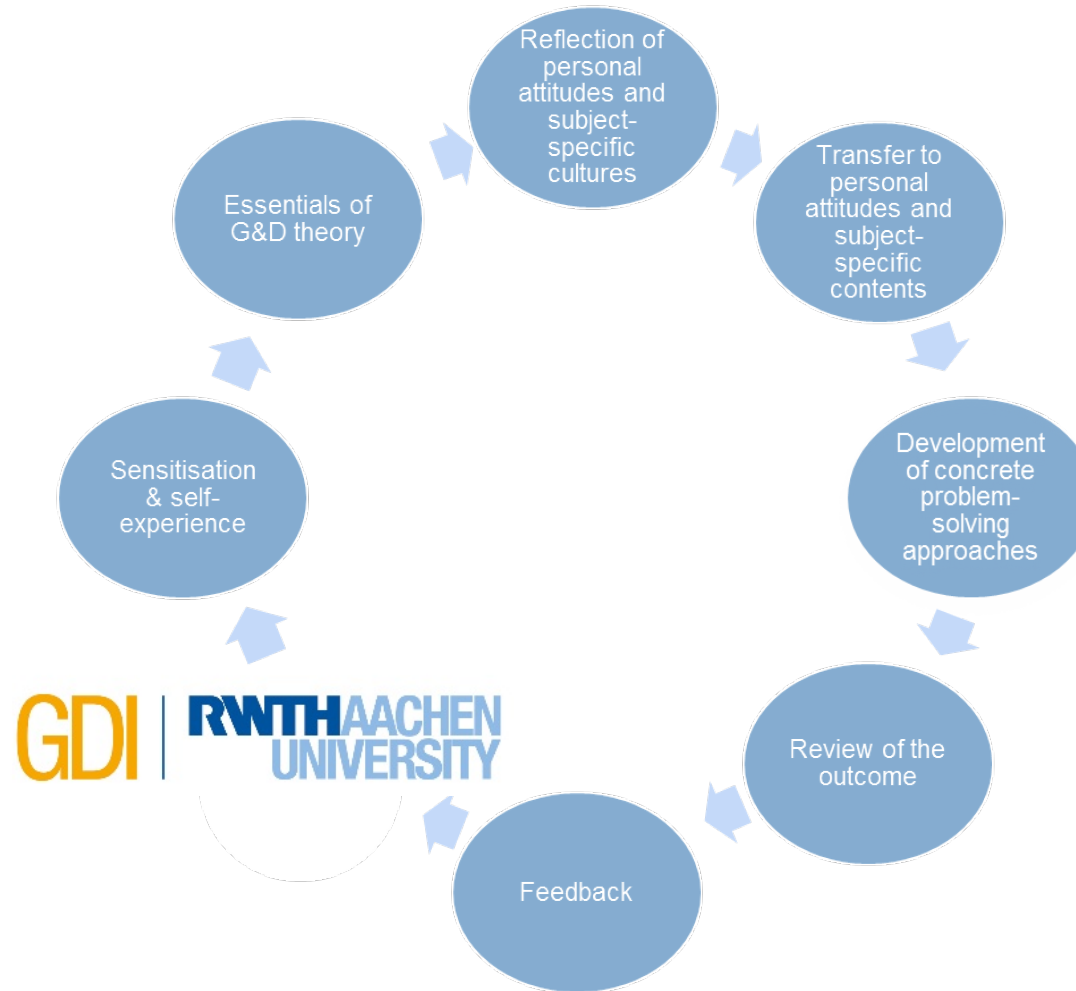


Technical Diagrams:



The technical diagrams illustrate the internal structure of the toilet. Section A-A (1:8) shows a cross-section of the toilet bowl and the urine-diverting mechanism. Section B-B (1:8) shows a cross-section of the urine-diverting chamber and the urine collection container. The diagrams are labeled with 'A-A (1:8)' and 'B-B (1:8)'.

Fostering innovation in engineering education: The gendered perspective



THE FUTURE OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE IN THE AFRICAN CONTINENT

Dr. Keolebogile Motaung
Tshwane University of Technology

Tissue engineering and regenerative medicine

- Is as science of design and manufacture of new tissues for the functional restoration of impaired organs and replacement of lost parts due to cancer, diseases and trauma.
- Creation of human spare parts?

Why tissue engineering and stem cells

- (IKS) Medicinal plants and stem cells have the ability to regenerate cartilage and do not have any of the disadvantages mentioned above. Plant based morphogenetic proteins (Compound from medicinal plants)

Challenges of women in science

- At the time of tenure. (biological clock), where intense workload demands of establishing an independent research program and fostering a young family exactly overlap, result in higher attrition rates in women vs. men in academic careers.
- A gender equality issue since lack of appropriate mentoring is also linked to higher attrition rates in women vs. men in academic positions.
- A male dominated culture in higher education and research council does not support the development and retention of women researchers
- Most research grant for young researchers have age limit to the disadvantage of women researchers who normally are late bloomers.

Recommendations

Implement flexible family care spending

- This awards enable grantees to use award funds for family-related expenses, such as childcare and eldercare
- Would allow individuals to travel to meetings, conferences, and workshops that may be important for early career advancement.
- Grant making organizations (UNESCO, MRC and NRF etc) and institutions must set up women positive award programs

Recommendations

Focus on psychological and cultural change

- Recruit gender-balanced external review committees and speaker selection committees (Proposals)
- Organizations that fund research and convene meetings should assemble gender-balanced review and speaker selection committees.

Recommendations

Focus on education as a tool

- Institutions, grant makers, and scientists must commit to education as a tool to make progress towards gender equality, for example, through hosting and providing training seminars, workshops, and discussions, and share these resources with the scientific and lay community as widely as possible.
- Institutional transformation in the culture of the universities and research organization to support women researchers

Questions & Comments from the floor

- In the US there is a sensitivity disaggregating by race.
 - Mask issues of race by looking at women without disaggregating by race.
- Where do the funds come from for the Engineering school program?
 - Funding is a combination. German research funding and official “sponsors” collect money
- Comment – need more men who are convinced pendulum should swing in favour of gender quality.
- Comment – African society has different culture. Men more powerful than women. Cultural barriers make it hard for women. What can be done?
- Mentoring vs Role Models
- Women are sometime each others worst enemies