

DSI -THENSA FUNDED COLLABORATIVE PROJECT: TO BUILD CAPACITY IN STRATEGIC AREAS OF ACADEMIC PROGRAMMING AND INNOVATION WITHIN THE PUBLIC HIGHER EDUCATION SECTOR

1. BACKGROUND

It is acknowledged that whilst some activities are funded by the various Government entities and agencies, public Universities are often obliged to fund the technology development process themselves and to devote financial resources to the most critical phase between invention and product development. This raises the following inter-related questions:

- a) What can be done to ensure support to strengthen universities' own ability to identify and stimulate open innovation and innovative mindsets so that universities can support socio-economic growth and the growth of open innovation ecosystems?
- b) What academic and administrative capacity is required to ensure success? and
- c) What is needed to up the game further, in terms of leadership, open innovation, and development of innovation and entrepreneurial talent and commercialisation?

In response to these critical questions, THENSA's capacity building programmes below support and capacitate Universities of Technology and previously disadvantaged universities to build and strengthen research capacity to ensure that the research outputs and assets can be commercialised. These activities will contribute to job creation, the design and development of new jobs in line with the 4IR and reducing poverty and inequality.

2. PROJECT OVERVIEW

The objectives of the THENSA capacity development programmes, align themselves not only to the goals of the Ministry of Education, Science, and Innovation but also to the goals of the NDP and the Research and Development Strategy of the DHET and DSI, namely:

- a. To increase the percentage of academic staff (with special focus on Black Women) with masters and PhDs by 2030 and contribute to achieving the 75% target set.
- b. To enhance the quality and quantity of academic supervisors to support the increased production of post-graduate qualifications.
- c. To ensure that up to 70% of the candidates embarking on this programme are black women, in response to the transformation agenda of the 2.4 DHET and DSI.
- d. To ensure the output of a critical mass of entrepreneurs through the implementation of the THENSA bespoke training programmes.
- e. To ensure high level capacity in TTO offices of universities through exposure and mentoring of OTT staff at international facilities.
- f. To review training programmes and accompanying research commercialisation Best Practice Manual (BPM) to capacitate and support TTO staff offices with a special focus on commercialisation.

To achieve the objectives stated above, THENSA proposes the following interventions to fast-track the development of the sector:

2.1 Bespoke Masters, PhD, and Supervisor Enhancement programmes.

2.2 Entrepreneurship training at NQF Level 4 (12-18 months); Entrepreneurship skills/learning programmes SAQA aligned (1-week residential programme, followed by 3-weeks online support) and Online Entrepreneurship Programme (8 weeks).

2.3 Technology Transfer Capacity Development:

- a. Shadowing- and mentorship-based capacitation of Directors of Technology Transfer Offices through placement at an international technology transfer office.
- b. Shadowing- and mentorship-based capacitation of Technology Transfer Officers (TTOs) through placement at an international technology transfer office.
- c. Practical upskilling of Technology Transfer Officers through placement at an international technology transfer office.
- d. Development of a 'train the trainer' programme on commercialisation of innovative research for all staff at OTT and support of start-ups and iHubs within the OTT office. The international partner will run the programmes together with SA partners at the respective regional or local OTTs.

The Technology Transfer Capacity Development will also contribute to the enhancement and consolidation of the following research and innovation clusters and communities of practice that THENSA has established within the member institutions, namely:

- e. Science Parks and Business Units.
- f. Space Science; and
- g. Hydrogen and the circular economy (green economy)
- h. tourism
- i. lecturer enhancement programmes.

The sector recognises the urgent and challenging imperative to recruit, support and retain black, and particularly female academic staff, to address their very serious under-representation at all levels in this sector.

The abovementioned programmes are designed to specifically address:

- The transformation agenda of DHET and DSI in that its funding beneficiaries will be a minimum of 60% black women recipients in the Masters, PhD, and Supervisor programmes.
- Participants from all UoTs and previously disadvantaged public universities in South Africa; and
- Through the bespoke programmes, contribute to addressing the triple challenges of poverty, inequality and unemployment threatening the advancement of our country.

3. STATUS OF THE PROJECT

The project commenced in October 2022 and will continue until March 2025.