



**THENSA**

Technological Higher Education Network South Africa

**BROCHURE**

The Technological Higher Education Network South Africa (THENSA), previously known as the South African Technology Network (SATN), is a representative body for technology focused higher education institutions in South Africa and Africa.

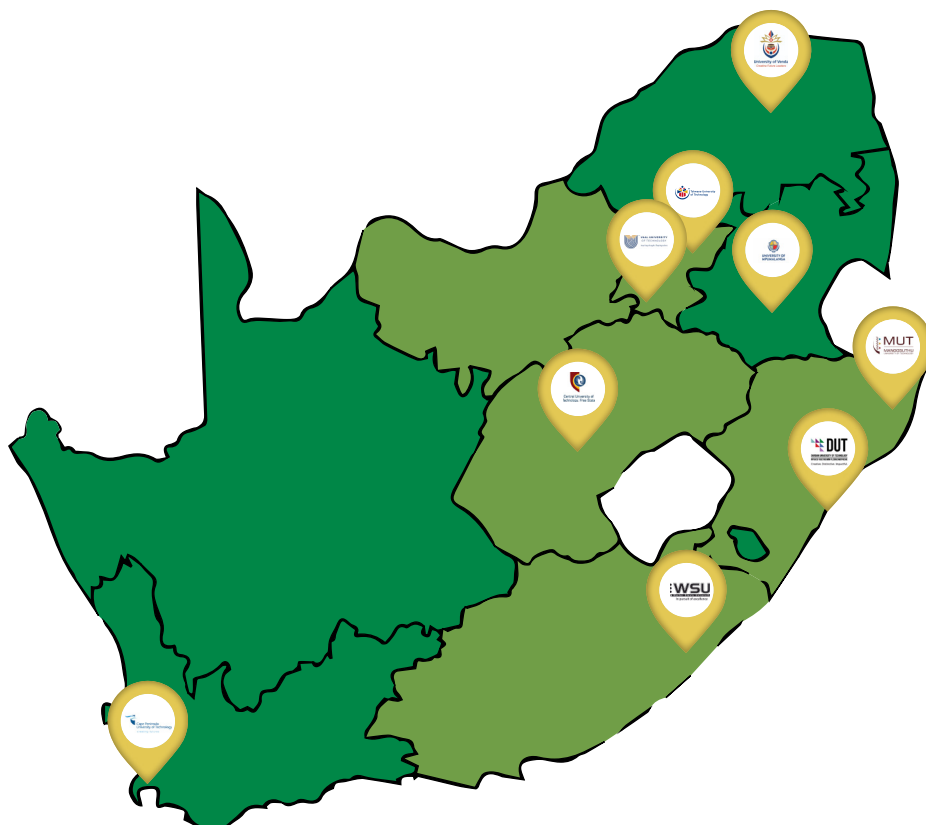
THENSA is governed by a Board of Directors comprising the Vice Chancellors of all the Member Institutions. The activities of the organisation is led by the CEO and the THENSA Secretariat.

The main objective of this body is to promote relevant, impactful and globally competitive qualifications, skills, research and innovation in partnership with Business, Industry and Research Institutions locally and internationally to ensure a vibrant economy in Africa. THENSA is focused on its transformation agenda in respect of the 4IR and hence, creating curricula, entrepreneurs and international research, innovation and business partnerships, has become one of its urgent strategic objectives.

## 1. MEMBERSHIP

### Members:

- 🌀 Cape Peninsula University of Technology (CPUT), Western Cape ([www.cput.ac.za](http://www.cput.ac.za))
- 🌀 Central University of Technology, Free State (CUT), Free State ([www.cut.ac.za](http://www.cut.ac.za))
- 🌀 Durban University of Technology (DUT), KwaZulu-Natal ([www.dut.ac.za](http://www.dut.ac.za))
- 🌀 Mangosuthu University of Technology (MUT), Kwazulu-Natal ([www.mut.ac.za](http://www.mut.ac.za))
- 🌀 Tshwane University of Technology (TUT), Gauteng ([www.tut.ac.za](http://www.tut.ac.za))
- 🌀 Vaal University of Technology (VUT), Gauteng ([www.vut.ac.za](http://www.vut.ac.za))
- 🌀 University of Mpumalanga (UMP), Mpumalanga ([www.ump.ac.za](http://www.ump.ac.za))
- 🌀 Walter Sisulu University (WSU), Eastern Cape ([www.wsu.ac.za](http://www.wsu.ac.za))
- 🌀 University of Venda (UNIVEN), Limpopo ([www.univen.ac.za](http://www.univen.ac.za))



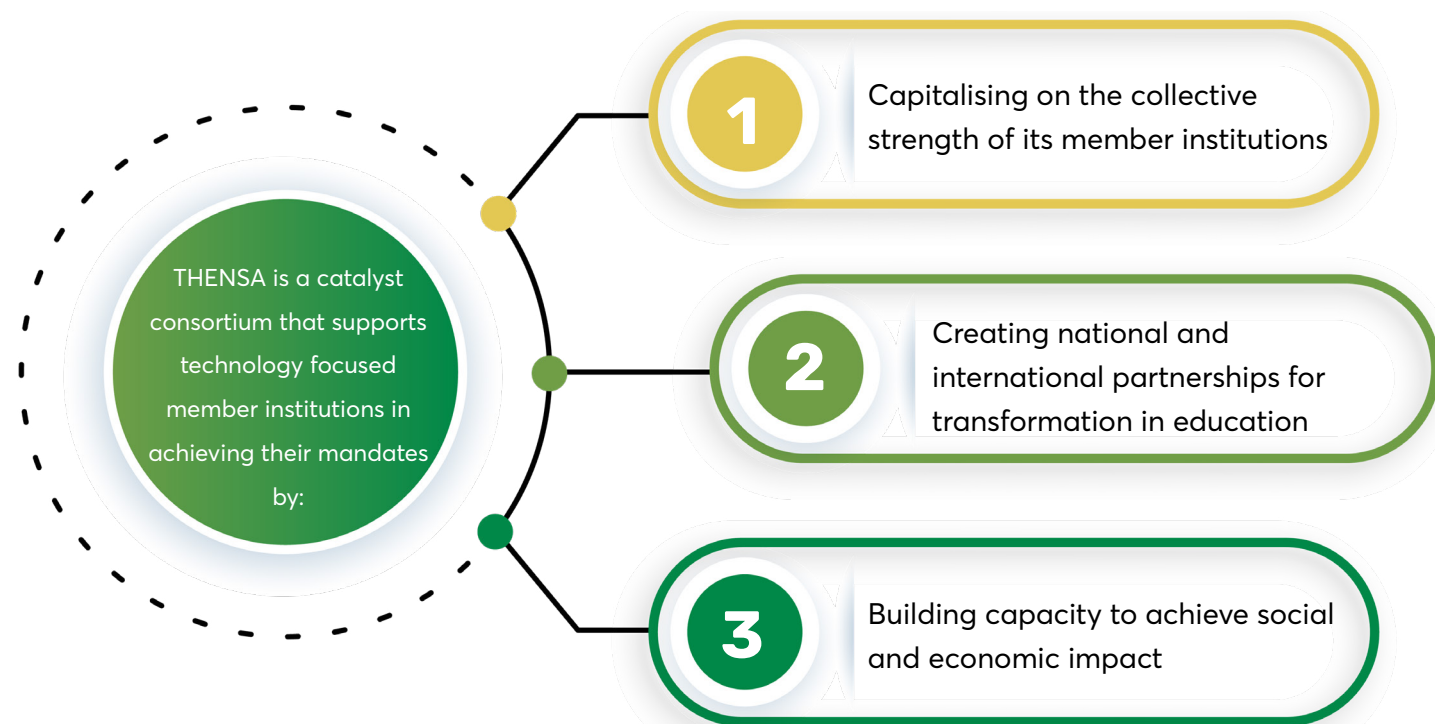
## Associate Members:

- 🌀 Namibia University of Science and Technology (NUST)
- 🌀 Association of Technical Universities and Polytechnics in Africa (ATUPA)
- 🌀 Southern African Regional Universities Association (SARUA)

## Strategic Partners:

- 🌀 4TU – Netherlands
- 🌀 Australian Technology Network (ATN)
- 🌀 Business and Industry
- 🌀 Clarivate Analytics
- 🌀 Council for Higher Education
- 🌀 Democracy Works Foundation
- 🌀 Department of Higher Education and Training
- 🌀 E-waste Association of South Africa (EWASA)
- 🌀 Institute of Natural Resources (INR)
- 🌀 Investec Bank Limited
- 🌀 KAIST (KOREA)
- 🌀 NITTTR (India) and DST (India),
- 🌀 National Department of Tourism
- 🌀 National Intellectual Property Management Office (NIPMO) (Department of Science and Innovation)
- 🌀 National Research Foundation
- 🌀 National Youth Development Agency (NYDA)
- 🌀 Open Window Institute
- 🌀 Quality Council for Trades and Occupations
- 🌀 SET Squared (5 University consortium UK),
- 🌀 Sector Education and Training Authorities
- 🌀 South African Qualifications Authority
- 🌀 Technological Higher Education Association of Ireland (THEA)
- 🌀 Technology Innovation Agency (TIA) of the Department of Science and Technology
- 🌀 Western Digital (Thailand),
- 🌀 World association of Cooperative Education (WACE)

## 2. PURPOSE STATEMENT

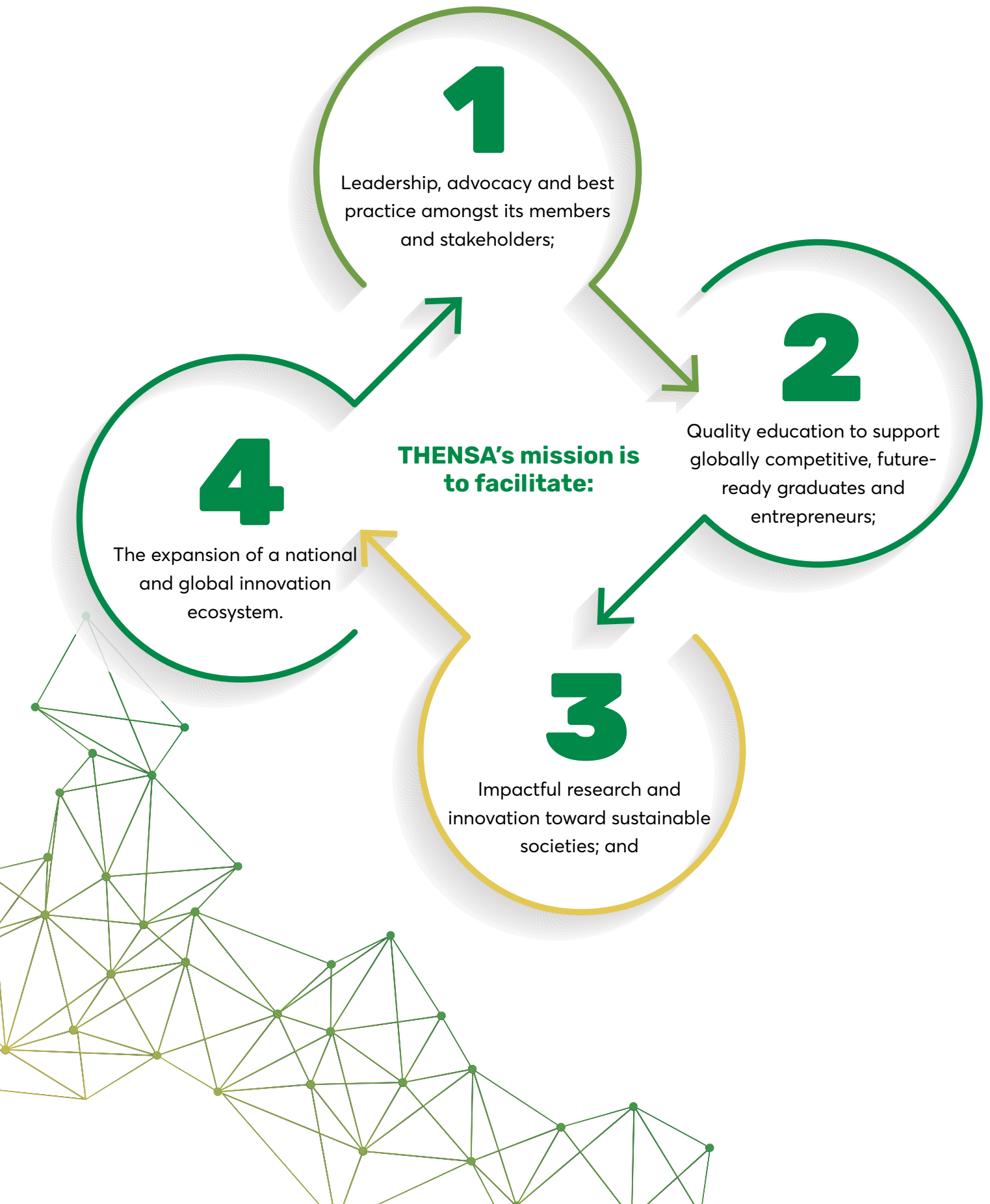


Thus, enabling member institutions to conduct research and innovation with real-world impact and produce work-ready graduates and entrepreneurs who become creative contributors in a global society.

### 3. VISION

THENSA will be recognised as a vibrant, innovative consortium for advancing technology-focused institutions with a transformative societal impact.

### 4. MISSION



## 5. STRATEGIC GOALS

**1** To provide transformative leadership and promote best practice.

**2** To act as an advocacy and lobbying agency for the consortium;

**3** To be a positive catalyst for sustainable socio-economic development;

**4** To promote and enable impactful real-world research and innovation;

**5** To mobilise mutually beneficial national and international education, government, business and industry ecosystems and networks;

**6** To promote quality, technology-based education and training for the world of work.

**7** To increase membership and funding sources to ensure sustainability of THENSA

## 6. CURRENT PROJECTS AND PROGRAMMES OFFERED TO MEMBER INSTITUTIONS

### a) CAPACITY BUILDING PROGRAMMES

In meeting the ambitious DHET target of 75% of staff with PhDs by 2030, THENSA developed the following highly successful postgraduate capacity building programmes:

- Bespoke Masters Programme,
- Bespoke PhD programme, and
- Supervisor Enhancement Programme
- Writing for Academic Publications

The THENSA Cohort Model was found to be both highly relevant and effective in meeting the needs of candidates and in addressing the wider needs in advancing PhD capacity at Universities of Technology (UoTs) and previously disadvantaged universities (PDI's). The programme provides the cohort with access to professional and experienced facilitators (both nationally and internationally) and supervisors across multiple disciplines and institutions. This is a major asset to the programme and contributes to cross-fertilization of ideas and knowledge towards rich research production. The participatory engagements and flexibility, together with technical support provided by THENSA Programme Team, are central to the success of the programme.

## b) WORK INTEGRATED LEARNING SOUTH AFRICA (WILSA)

The importance of Cooperative and Work Integrated Education (CWIE) is based on its critical need for employability and its significance is underpinned by the creation of the Directorate for WIL by the Department of Higher Education and Training (DHET) in South Africa; it also features prominently in the White Paper on Post School Education.

THENSA and its member Institutions launched Work- Integrated Learning South Africa (WILSA) at the THENSA International Conference held in March 2022.

WILSA is a Network of Excellence for Work Integrated Learning. It is research focused and is established under the auspice of THENSA. The aim of WILSA is to promote research, training capacity building and practice of WIL in the country and the continent by doing the following:

- ⑥ Bringing networks of excellence together for benchmarking and strategic intervention design and implementation – to benefit the sector as a whole.
- ⑥ Evaluating and designing WIL curricula that is fit for purpose through applied research.
- ⑥ Tapping into existing expertise and platforms locally and internationally to benefit our members and the broader sector, to gain international recognition.
- ⑥ Informing WIL policy design and driving implementation on the development and application of WIL as an effective pedagogy.
- ⑥ Designing, facilitating, and gaining access for members to WIL training.
- ⑥ As a member of the World Association for Cooperative and Work Integrated Education (WACE), THENSA will extend the benefits of WIL to other higher education and industry sectors who will benefit from its innate values.

THENSA is a member of the World Association for Co-Operative Education (WACE)

## c) ENTREPRENEURSHIP PROGRAMMES

THENSA in partnership with the Technology Innovation Agency (TIA), has over the past 5 years conducted study visits to Ireland, Netherlands, Korea, Japan, and the UK to study and investigate best practice in entrepreneurship training in order to find practical solutions to our unemployment crisis. These visits translated into TIA co-hosting and piloting training programmes for approximately 100 students from Universities in South Africa.

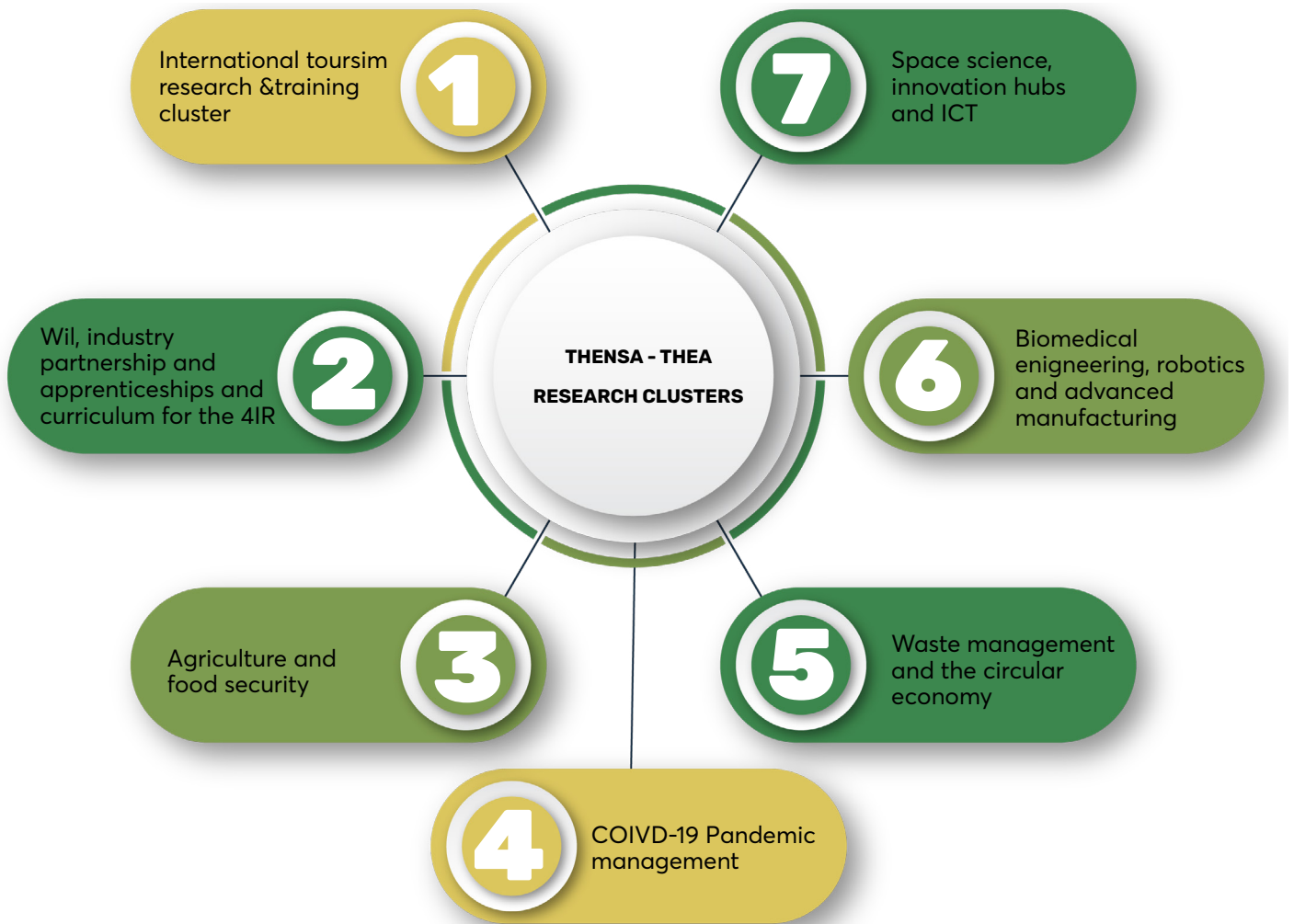
THENSA in partnership with its local and international partners namely, the Munster Technological University and the Atlantic Technological University in Ireland designed and implemented three Entrepreneurship Programmes to build entrepreneurial capacity through structured level-specific training.

**These programmes include the following:**

- ⑥ NQF Level 4 (QCTO-SETA Qualification in New Venture Creation) 1 year Contact Programme.
- ⑥ NQF Level 5 Programme (SAQA Aligned credits) 5 Days Programme with 3-month online support.
- ⑥ Online Programme (SAQA aligned credits) 8 Weeks – in partnership with Atlantic Technological University and the Munster University of Technology in Ireland

#### d) RESEARCH CLUSTERS

South Africa-Ireland Partnership -the following seven research clusters were identified as strategic areas for collaborative research and human capacity development within the technology sector:



#### e) GRADUATE EMPLOYABILITY APP

THENSA has developed a Graduate Employability App (GEA) that will be hugely beneficial to its member institutions and graduates.

##### Benefits to member institutions:

- 🌀 Institutions will have access to real time data of your graduate's employability status (by discipline, year, gender, race etc), their work experience.
- 🌀 Identify the relationship between the graduate qualification and the type of employment the graduate is employed in; Timeframe it took for graduates to find employment.
- 🌀 Establish if their WIL component in their qualification helped them with finding employment etc.
- 🌀 Institutions will receive feedback that will help institutions with curriculum reform and review
- 🌀 Institutions will have information available on experts in industry that can be appointed as adjunct professors at institution to teach in specific discipline
- 🌀 Possible partnerships with business and industry

## Benefits to Graduates:

- 🌀 How to prepare a professional CV
- 🌀 How to prepare for an interview (face to face and nowadays online)
- 🌀 We are currently busy establishing a database of business and industry which will give graduates opportunities to available jobs / employment.
- 🌀 Graduates will have access to the THENSA SAQA aligned online entrepreneurship programme
- 🌀 Access to other line course – over 70 IBM course available
- 🌀 Automatic link update to LinkedIn profile

## f) SCIENCE PARKS / BUSINESS UNIT PARTNERSHIPS

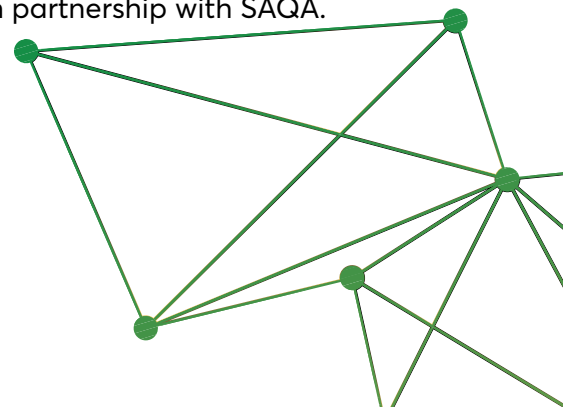
Whilst South Africa's science and technology system has taken important strides forward, there are gaps between South Africa and those countries identified as knowledge-driven economies. The aim is to firstly assess the status quo amongst innovation, business units, and technology transfer entities at member institutions of THENSA and secondly establish a consortium of science and technology parks of its member institutions in order to create a consolidated and combined entity to promote the technological intensification of the economy, a more effective knowledge transfer and sharing and the construction of competitive advantages.

### The objectives of the THENSA consortium of Science Parks and Business Units:

- 🌀 Coordinate an active network of managers of science/technology/research parks, innovation districts and other areas of innovation
- 🌀 Enhance new business opportunities for members and their companies
- 🌀 Increase the visibility of our members and multiply their global connections
- 🌀 Ensure member representation at international forums and institutions
- 🌀 Assist member institutions in the development of new parks and areas of innovation
- 🌀 Become members of the international association of science and technology parks and connect with experts in science and technology parks and areas of innovation globally
- 🌀 Submit joint proposals to government and business and industry whilst responding to building third stream income for their respective institutions.

## g) HIGHER EDUCATION REFORM EXPERTS, SOUTH AFRICA (HERE-SA)

The project aims at developing a network of Higher Education Reform Experts in South Africa, inspired by the Higher Education Reform Experts (HEREs) in the EU neighborhood region (funded by the European Commission), which have been influencing policy change in their respective countries for approximately a decade. HERESA is based in the member universities of THENSA in partnership with SAQA.





## HERESA PARTNER INSTITUTIONS

### THENSA PARTNERS

- Cape Peninsula University of Technology
- Central University of Technology
- Durban University of Technology
- South African Qualifications Association (SAQA)
- Tshwana University of Technology
- University of Venda
- Walter Sisulu University

### EUROPEAN UNION PARTNERS

- Munster Technological University (Ireland)
- OBREAL Global
- Politecnico di Torino (PoliTO) (Italy)
- Royal Institute of Technology, KTH (Sweden)
- Tampere University of Applied Sciences (TAMK) (Finland)
- University Burgundy France-Comté (France)

### h) THENSA BIENNIAL INTERNATIONAL CONFERENCES

THENSA recent conference on "University, Business and Partnerships: A Driver for 4IR Solutions Post COVID19" was held at Monte Casino from 16-18 March 2022. At the conference it was re-affirmed that the Presidential Commission on the Fourth Industrial Revolution (4IR) is an affirmation of Government's commitment to embracing new technologies and using them to address societal challenges while simultaneously seizing the opportunity to improve the lives of South Africans and that Government's vision that South Africa will have a globally competitive, inclusive, and shared economy with the technological capability and production capacity that is driven by people harnessing the 4IR to propel the country forward towards its social and economic goals.

The Fourth Industrial Revolution offers prospects for South Africa and its global partners to revolutionise its teaching and learning sectors, its research and innovation sector, its public and private sector amongst others, in a way that will benefit all. The THENSA Statements and Recommendations on 4IR in Higher Education outlines these prospects ([www.thensa.co.za](http://www.thensa.co.za)). It is expected that 4IR solutions and policy recommendations made in this statement will be afforded due consideration and implementation thereof by the respective higher education and research institutions, government organisations, business and industry, and civil society organisations.



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Detailed information can be found on THENSA website <https://thensa.co.za>

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