

WELCOME REMARKS

BY

**THE VICE CHANCELLOR,
PROFESSOR OTLOGETSWE TOTOLO**

ON THE

**OCCASION OF THE BIUST 10TH ANNIVERSARY
CELEBRATION LAUNCH**

DATE: MONDAY, 18TH SEPTEMBER 2023

VENUE: BIUST CAMPUS, MULTIPURPOSE HALL

Salutations

A very good morning to you all!

1. It is my pleasure and privilege to welcome all of you and thank you for joining us to celebrate the Botswana International University of Science & Technology (BIUST)'s tenth anniversary. ~~celebration~~, Whether you are here on campus or joining us virtually, you have certainly made tremendous sacrifices in time and comfort to attend this occasion. **KE LE AMOGELA KA PULA BAGAETSHO!**
2. Today marks a milestone in the history of BIUST. We are gathered here to celebrate a momentous occasion of the University's 10th Anniversary under the theme: "**BIUST: A Decade of Driving Change through Teaching, Research, Innovation, and Engagement**". This is a time to reflect on BIUST outstanding achievements and celebrate the success of our students, staff, alumni and partners. It is also a time to look into the future, at what we will achieve and how we will continue growing as a specialised university, a place that provides academic excellence, is commercially attractive and socially relevant.
3. **Distinguished ladies & Gentlemen**, BIUST was established as a research-intensive University, specialised in Science, Technology, Engineering, and Mathematics (STEM)

university through an Act of Parliament, BIUST ACT, (CAP57:05) in 2006, and became operational in 2012. We could have celebrated the University's 10th anniversary last year but due to some unforeseen circumstances we had to postpone the ceremony, hence why we are gathered here this morning.

4. The University's Strategic Focus is to respond to changing national and global higher education landscape and sets out strategic priorities through driving a cutting-edge research and innovation in science, engineering and technology, propelling industry growth, development and advancement of a diversified knowledge-based economy and society.
5. Over the last decade, BIUST has garnered global recognition through a development of a strong academic value chain, comprising of teaching & learning, research & innovation, and engagement for development, catapulting the University to be one of the key drivers for transforming Botswana's economy from a resource-based to knowledge-driven economy. The aim is for the University to address the most pressing issues in science, engineering and technology.
6. As a research-intensive university with a mandate of helping the country produce Scientists, Technologists and Engineers, the University has since produced over 2500 market relevant graduates. To date at least 48% of BIUST graduates are

employed within 6 months after graduation. BIUST Alumni are employed globally, with quite a number of them being entrepreneurs.

7. It is worth noting that, young as our university is, BIUST has been ranked among the top Universities in Sub-Saharan Africa after being ranked position 20 from a list of 88 universities across 20 Sub-Saharan countries and at the top in the country by the Times Higher Education (THE) Sub-Saharan University Rankings, released on Monday, 26th June 2023.

8. In terms of research, the University has embarked on various research projects to deliver real life scientific solutions and innovations to this country especially in this challenging era of job creation and the 4th Industrial Revolution.

8.1 Botswana could sooner than later, see a coal-to-Liquids refinery set up in Palapye, producing car fuels, tar, soap products, ammonia, and many more coal liquefying by-products-based industries. This is attributed to the BIUST model of coal-to-liquid conversion project using a pyrolysis technology, a subject which has gained traction in Botswana after the national oil company, Botswana Oil.

- 8.2 The first Botswana Satellite Ground communication station, which was officially commissioned by His Excellency, The President of the Republic of Botswana, Dr. Mokgweetsi Erick Keabetswe Masisi in November 2022 is hosted in the University. A multi-disciplinary and cross-sectoral project which spans almost all academic fields hence being fundamental for the continuity of collaborations, career progress, sharing knowledge and ideas from research to experimentation and market. The expectation is for the satellite cube to be launched next year.
- 8.3 The University has been awarded a 1.4 million Euros, grant funded by the European Commission through the Education, Audio-visual and Culture Executive Agency (EACEA), for a project titled **"Pan-Africa Planetary and Space Science Network."** Aimed at not only blue-sky research and skilled graduates in STEM disciplines but is also linked to socio-economic development for agriculture projects, earth observation, communication networks, monitoring/prevention of disaster and geohazard, space defence and telemedicine amongst others.
- 8.4 BIUST was appointed a National Coordinator for the African Very-long based interferometer Network (AVN)

project of Square Kilometre Array (SKA). The largest ground-based astronomy project ever undertaken, the Square Kilometre Array (SKA), which represents the largest Earth-based science project ever undertaken by mankind, will enable astronomers to monitor the sky in unprecedented detail and answer some of the most pressing scientific questions of all time.

8.5 The university is to also host the SADC Satellite Receiver to enhance Botswana's Geo-Information System through Monitoring for Environment and Security in Africa (MESA) project aimed at supporting African decision-makers and planners in designing and implementing national, regional and continental policies and development plans towards sustainable development, thereby advancing the socioeconomic progress and well-being of African populations towards achievement of the Millennium Development Goals (MDGs).

8.6 BIUST is top among the ten (10) Research Chairs from research-based institutions across Africa who won the five-year research fund. The O.R. Tambo Africa Research Chairs Initiative (ORTAChI). An initiative intended to meet political, development and higher education objectives on the African continent, through

conducting research and supporting high-end skills development in areas such as climate, public health, entrepreneurship and youth employment. ORTARChI provides five years of funding, amounting to approximately **fifteen million US Dollars**.

- 8.7 In a bid to harness the potential of drone technology in revolutionizing healthcare delivery and access, BIUST collaborated with the Ministry of Health, the United Nations Population Fund, and AVY in launching "Drones for Health". This collaboration indicated a commitment to explore and advance the use of drones in healthcare, an important step towards leveraging the capabilities of drone technology to address critical health challenges.
- 8.8 BIUST produced a wide range of products, including soaps and sanitizers, smart switches, fly-ash bricks, antibacterial toilet seats, sodium hypochlorite made from salt that was readily available nearby, sunflower production facility, biodiesel and diamond sorting machine patent. These products were created with a range of industries and needs in mind. The soaps and sanitizers serve to improve cleanliness and inhibit the spread of illnesses, especially in healthcare

environments. The products became a very critical asset during the COVID 19 pandemic.

9. There are number of products and services ready for commercialization that has been setup by the University through a recently established BIUST Enterprise PTY LTD a 100% BIUST owned company, a commercial wing of the university. These include:

9.1 A Cyber security centre of excellence in conjunction with Elbit Systems

9.2 A drones assembly plant and manufacturing of small planes facility jointly with the Miles Group.

9.3 A military and Defence technology manufacturing centre jointly with BDF

9.4 A coal characterization and energy futures lab jointly with Morupule Coal Mine

10. Distinguished guests, BIUST is not an isolated entity, but rather an integral part of society, industry, and the global sphere. Collaboration between universities and industry is one of the critical drivers of transformation of global economy. These relationships are deemed to serve a critical mainstay of research development and innovation. The University has purposefully taken strategic measures to establish enduring and meaningful partnerships. These alliances have enabled our university to actively bridge the gap between the industry

needs and our graduates, continually improve our academic offerings, identify challenges that can be addressed effectively through applied research and subsequently engage in commercialization of our research output. Some of the many partnerships BIUST embarked on include:

10.1 Partnerships with local mines such as Debswana, Morupule and LUCARA. These partnerships have proved to be instrumental in supporting global Mining sector as international universities such as Akita from Japan and the Colorado school of mines in the USA utilize them to offer research opportunities. The mines have also been at the core of developing the Industrial Manufacturing and Mining offerings of the University, through student attachments programmes and funded research projects.

10.2 Debswana Mining Company continues to help BIUST in facilitating the mining industry through applied research Sponsorship for various Research and Development programs in excess of P2 m. The Debswana mines continue to offer industrial attachment and placement for BIUST Students, including offering employment opportunities.

10.3 Morupule coal Mine is currently sponsoring a student pursuing MSc at BIUST.

10.4 Lucara Botswana is working on project assessing impact of library schools in Botswana.

10.5 In partnership with Ministry of Agriculture, BIUST managed to create a system that will assist in managing grain crop production in Botswana. The main purpose is to provide a database of all arable farmers in Botswana and monitor grain crop production data against the target set among other use. In addition, BIUST also assisted in creating a Grain Subsidy Management (GSM) which will be used to manage any subsidies introduced by the Government of Botswana to assist and encourage grain crop production.

10.6 Coordination of two Intra-Africa Mobility projects: "Education for Laser-based Manufacturing" and "Pan African Planetary Science and Space Network." These projects involve the collaboration of a total of nine partners. Furthermore, we are delighted to announce that, as a result of our leadership in these two projects, we have recently secured funding for additional capacity-building initiatives on behalf of a total of twenty-four partners. This coordinating role has positioned us at the forefront of Planetary Science and Advanced Industrial Manufacturing.

10.7 In terms of university's collaborative footprint, there's a focus on bridging the knowledge gap to support research development and innovation. Collaboration between BIUST and businesses helps achieve this. By working together, new solutions are created to solve problems.

10.8 BIUST has developed Drones Prototype for BDF Military Anti-Poaching operations. Eight BDF Officers have been trained at MEng who all graduated in 2022. One of the officers already enrolled for PhD under the second stage of the project.

10.9 In terms of BIUST BIHL Trust Collaboration, BIUST Girls Excelling in Mathematics and Science (BIUST – GEMS), BIUST embarked on Mentorship and Motivational program for female form 4 students around Botswana to enroll for Science, Technology, Engineering, Arts and Mathematics (STEAM) Programs. To date eight female students enrolled at BIUST while sixteen enrolled at other institutions in Botswana.

10.10 Education for laser Based Manufacturing and Pan African Planetary Science and Space Network have to date benefitted a total of 36 scholars pursuing degree and post graduate studies.

10.11 Botswana Digital and Innovation Hub is sponsoring various research projects undertaken by students and researchers totaling 5.4Million pula.

10.12 BIUST partnered with Akita University to enhance the educational standards and academic achievement and to appreciate the Mining Operations in Botswana from Mining and the value as well as the Government Mining Policies and Regulations. Each year Akita University sends students and professors for academic visit to Botswana. Each year Akita University admits two Botswana for training at post graduate level (MSc/PhD) in the Mining Area, fully sponsored by Akita.

10.13 The Ministry of Agriculture sponsored the development of Food Transformative Crop Management System to the tune of 18million pula.

10.14 The OR Tambo Contribution for Post Graduate training was funded at 3.2million pula by Ministry of Communication, Knowledge and Technology. The University is hosting the Botswana Satellite and the Ministry is supporting training of students under the project.

10.15 The University is participating in the Hatsalatladi Ditshukudu ground fissure project in conjunction with Botswana Geoscience Institute.

11. Directors of Ceremony, allow me to inform our invited guests that in celebrating BIUST journey of excellence, there is an array of activities planned for the week such

as a symposium and exhibition, panel discussions and an outreach programme. A flagship activity to conclude the activities of the 10th Anniversary celebration will be the Eighth Graduation ceremony billed for Friday, September 22nd, 2023, under the theme: **“Re-setting, Re-adjusting, Re-claiming, and driving change through Science, Technology and Entrepreneurship”**. The theme resonates very well with the recently launched President of the Republic of Botswana, Dr Mokgweetsi Erick Masisi's Reset Agenda calls for mindset change campaign.

12. the University heeded the call to be one of the key drivers through which Botswana can achieve a transition to a knowledge-driven economy.

At BIUST, our commitment to Botswana's Reset Agenda is unwavering. We recognize that cultivating a high-performance culture within the BIUST workforce is integral to achieving the delivery of quality and effective services to our nation. By fostering a culture of excellence, continuous learning, and innovation, we aim to empower our students to rise to the challenges of our rapidly evolving world. We are committed to ensuring that Botswana remains at the forefront of progress and contributing to the sustainable development of our beloved nation and the entire African continent; and delivering the best possible outcomes for our citizens.

14. During the Graduation ceremony, the University will proudly honour the former President of the Republic of Botswana and BIUST's former Chancellor, Dr. Festus Gontebanye Mogae, through a conferment of an Honorary Degree in Science, the first of its kind to be offered by this university. The conferment of the Honorary Degree is befitting for Rre Mogae, whose enormous contribution in the establishment of this university was remarkable.

15. Towards the end of our programme today, the Chairperson of the BIUST 10th Anniversary Celebration Committee will provide you with more details on what is to happen throughout the entire week and you are all invited to join us in celebrating **"your university"**.

16. Once again, **Distinguished ladies & Gentlemen**, I would like to express my sincere gratitude for your attendance and for being part of the narrative of BIUST growth.

Please allow me to say, Happy 10th Anniversary to BIUST.