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Namibia's Space Future Through International Collaboration: From Capacity Building to National Capability

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33rd Workshop on Space Economy Opportunities
for Emerging Nations: "Advancing Socio-Economic



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Presentation Overview

- Namibia Introduction and Background
- Namibian Government Policy and Laws
- Why International collaboration matters
- Global Strategic Partners: Building a World-Class Space Ecosystem
- University Collaboration Model: Connecting Namibia to Global Expertise
- Collaboration Outcomes: National Strategic value and benefits
- Namibia's Space Future Through Global Partnerships
- Key takeaways



Namibia Introduction and Background



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INTRODUCTION AND BACKGROUND



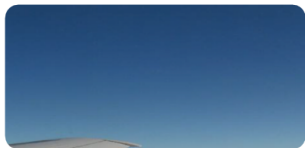
Namibia is a vast country

- Low population density (3.7 persons per square kilometer).
- High incidences of poaching.
- Communication challenges.



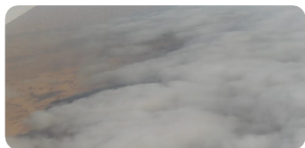
Namibia is one of the driest countries on earth

- Erratic / unpredictable rainfall.
- Sensitive environment (ocean, desert, wild animals, high and low lands, mountains, forest, etc.).



Namibia has relatively clear skies

- Suitable for space observation due to diversity of the environment.
- Instruments calibration for space science and technology exploration.
- High research interest on Space Science & Technology – international and continental.



Namibia has huge climatic studies potential

- South East Atlantic / desert environment attracts many aerial field campaigns.
- High biomass burning region.
- Green hydrogen.



Namibian Government Initiatives

Policy and Law

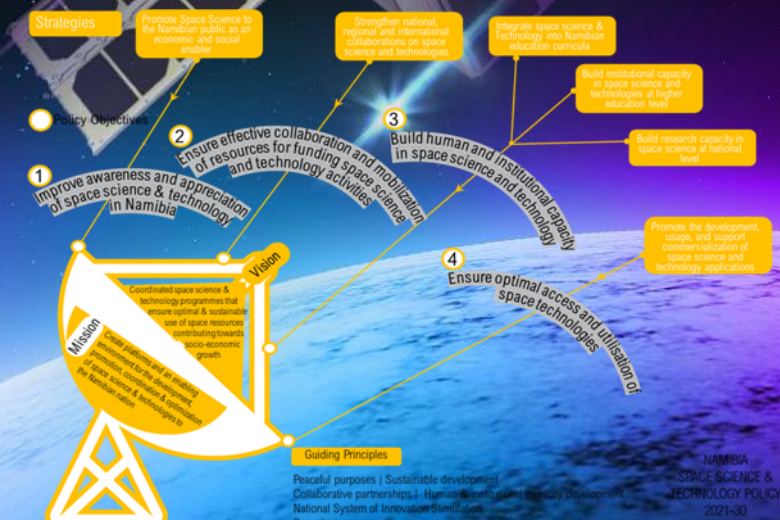
- The National Space Bill is being developed
- The National Space Science Council was established
- The National Space Policy was launched in 2021(2021-2030)

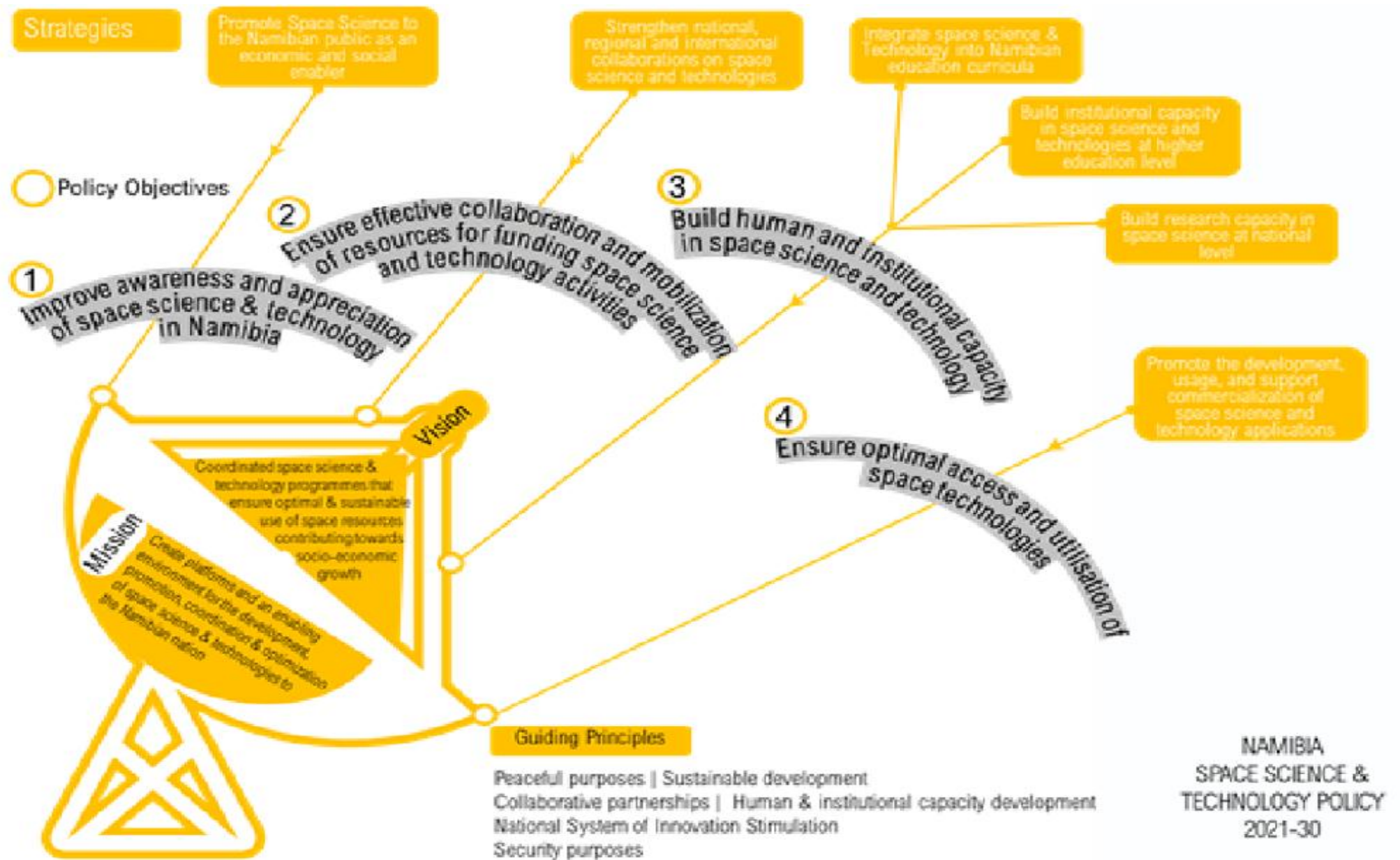
Capacity Development

- Namibia University of Science and Technology and the University of Namibia offer graduate and post-graduate programmes
- Research collaboration,
- Infrastructure development,
- Student and faculty mobility
- Access to global space networks



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The Namibian National Space Policy



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Key Goals of the Policy

- Peaceful Purposes
- Capacity Building: Strengthen human, technical, and institutional capabilities in astronomy, space science, and satellite data analysis.
- Socio-Economic Application: Integrate space technologies into national development to tackle challenges like climate change, water scarcity, drought, and food security.
- Collaboration: Foster national, regional, and international partnerships, building on existing agreements and membership bodies like the African Space Agency.



Global Partnerships, National Progress



While national policy provides the strategic direction, international collaboration provides the expertise, infrastructure, and partnerships needed to transform policy into operational capability

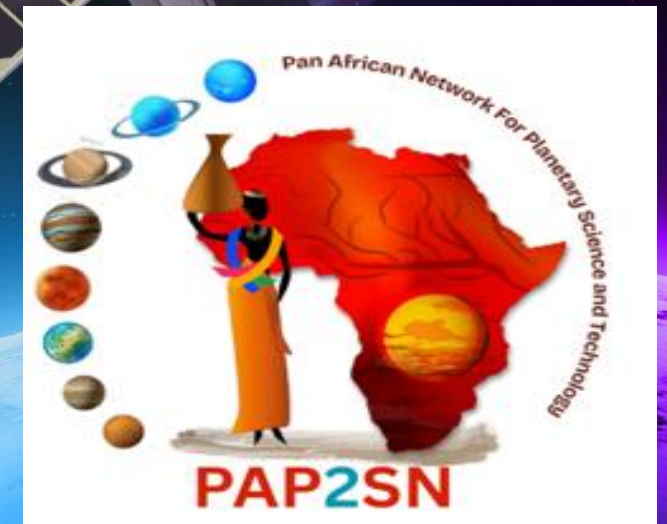


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Global Strategic Partners Building a World-Class Space System

- China _ Namibia Bilateral Agreement: SDRGS, TT&C Station, Capacity development of Namibian
- SPUTNIX LLC (Russia) CubeSat engineering, satellite mission development, ground station technologies
 - Industrial collaboration
- French South Africa Technical Institute (FSATI): Universities in South Africa, NUST, French Universities and industries
- Inter-Africa Mobility Schemes EU Funded Pan-African Plenary Science and Technology Network (Namibia, Zambia, South Africa, Ethiopia and Nigeria includes universities and industrial partners)



Impact Strategic International Collaboration

- Support for National Development Plan 6 and Vision 2030
- Technology transfer
- Human capital development,
- Research collaboration,
- Infrastructure development,
- Access to global space networks
- Joint missions and satellite development



Strategic Collaboration Outcomes Namibia Infrastructure & capacity



CBERS 4 Satellite Data for remote sensing and monitoring In collaboration with China



High Energy Spectroscopic System(H.E.S.S) collaboration of more than 11 nations, > 200 researchers have visited centre



NIST at NUST commissioned UHF, VHF and S-band receiving ground stations to promote capacity development and research . Supported by Ministry

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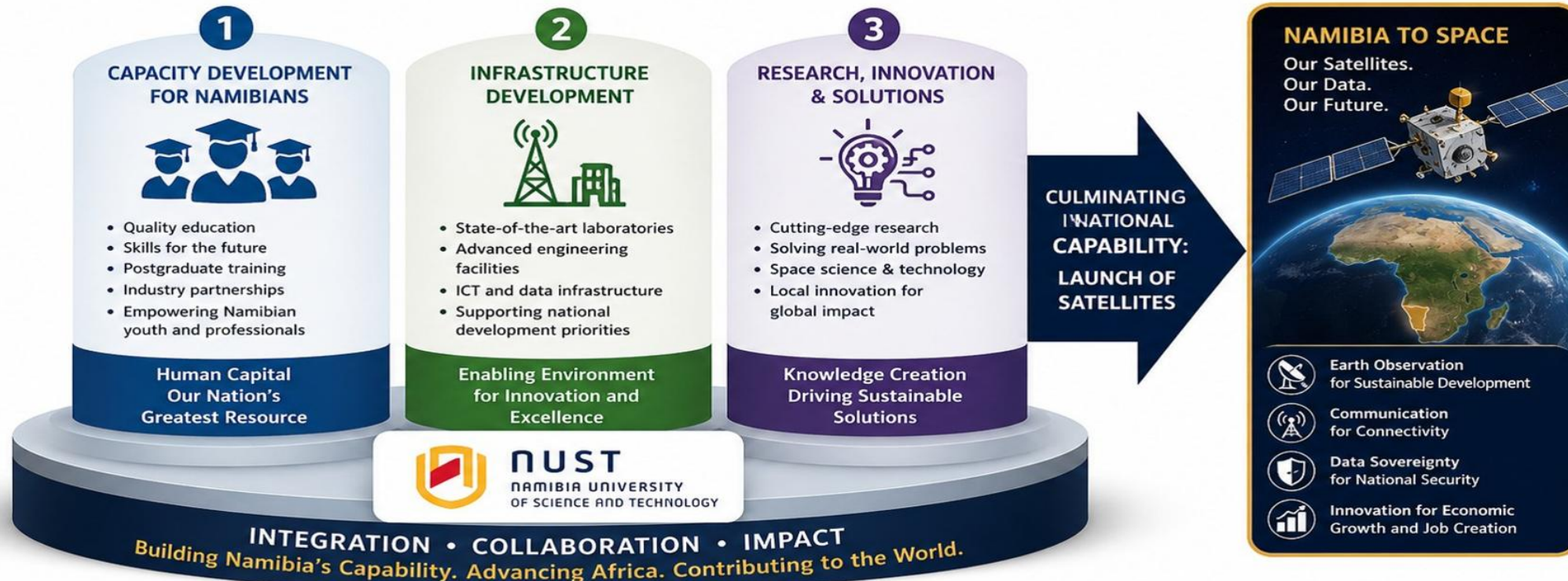
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Capacity Development From Classroom to Cosmos

NUST: 3-DIMENSION CAPACITY DEVELOPMENT FOR NAMIBIA'S FUTURE

People • Infrastructure • Research → Innovation → National Impact



Skilled Namibians
Empowered Communities



Stronger Infrastructure
Digital Namibia



Innovation-Driven Economy
Global Competitiveness



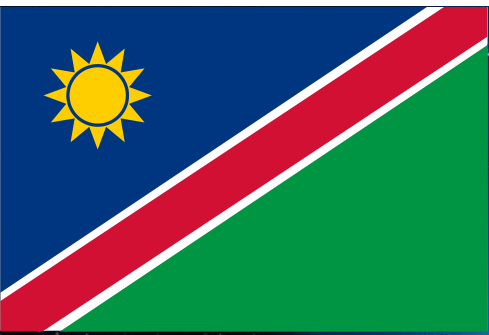
Sustainable Development
A Prosperous Namibia



Contributing to Africa
Benefiting the World

From Capacity to Capability. From Namibia to Space.

Emerging Nations. Advancing Geo-Economic



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From Capacity Building to National Capability

Our goal is simple: to ensure that space technologies become practical tools that improve the lives of Namibian citizens while positioning Namibia as an active participant in the global space community



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Today's partnerships-Tomorrow's space nation

This is about launching Namibia
into the future of space technology, innovation, and
scientific self-reliance

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