

**2023 INTERNATIONAL SUMMER SCHOOL AND CONFERENCE
OF THE
AFRICAN CENTRE FOR CAREER ENHANCEMENT AND SKILLS
SUPPORT(Access)**

**Repositioning Universities for Innovation,
Research Commercialisation and
Entrepreneurship**



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OBJECTIVES



SHORT CLIP VIDEO.

INTRODUCTION

**DEVELOPING A 5 YEAR PLAN FOR INNOVATION, ENTREPRENEURSHIP
AND RESEARCH COMMERCIALISATION FOR A UNIVERSITY**

TAKEAWAYS

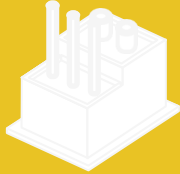
Setting the Context: Nigeria at a glance

Biggest Economy in Africa

- Population size - 220m
- Growth Rate- 2.41%
- Density 250/sq km
- 774 LGAs
- 109 senatorial districts



N140B Loss
money paid to foreign artisans /employee



Poor exposure for artisans

Poorly skilled artisan

GDP \$491 billion



The following sector is driving the economy

- Crude Oil /Petroleum
- Real Estate
- Agriculture
- Trade

Growth rate
-15.65%

Interest Rate
22%

Inflation
22%

Universities 20%

265



Nigerians not enrolled in school

Nigerians in underequipped Basic Education System

70%



220 million

Population Growth Rate
3-5%

Women
51%

Under 25years
60%



2million SMEs fold up every 5 years



70%

Of National skilled labour workforce are resident in Lagos and Abuja



Daily waste generation
32,000,000 metric tonnes



90 million people without power system



Daily water demand gap
20.5 billion liters

Entrepreneurial Activities at a Glance for a specific Africa Country

Registered
Businesses

72%

of registered firms
in]

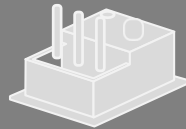


Job Creation

The Sector employs

84%

Of the Labour Force



Dominant sector

37%

of entrepreneurial activities are within the
food and beverages, manufacturing, real
estate & construction and ICT sectors

ICT

Increasing focus on ICT with



55%

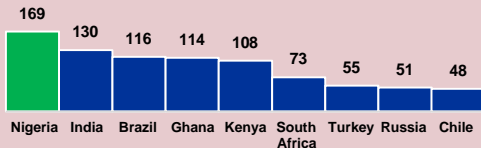
of most active start-up clusters

Doing business country

N

100th

out 189 economies in the Ease of Doing Business



Enabling Environment

80%

of MSMEs rated enabling environment as one
of their most critical challenges.

Research & Development

70%

of entrepreneurs do not have patent
right

Opportunity-Driven
Entrepreneurship



53%

of early stage entrepreneurs are driven by
opportunities to improve the socio-economic
environment

Survival Rate

4

High failure rate of

80%

within first 5 years of operation

Introduction



1 Innovation

Innovation is the process of taking something that already exists and improving it, whether it is a product, a service or even a process. It can be as simple as making a small change or as complex as completely overhauling an entire system or creating new marketing with a new product

Entrepreneurship refers to the process of creating a new enterprise and bearing any of its risks, with the view of making the profit. **Entrepreneurship** is the process of starting, developing, and scaling a business, involving innovation, creativity, and the ability to adapt to changing market conditions.

Research commercialization is the process of bringing a newly developed product or service to the local, national, or global marketplace

3
Research
Commercialisation

2
Entrepreneurship

Aspirations of Innovation, Research Commercialisation, and Entrepreneurship Drive in Universities

Vision

Mission

Core Values

A Research, Innovation and Entrepreneurship system that is fit for now , the future and able to respond to environmental, social and economic change on a global scale:

- developing new ideas and technologies to address the complex challenges facing all societies around the world
- helping the country to make the most of its world-class research and supporting its businesses to stay at the cutting edge
- engaging the public in discussion about research and innovation

Sample Vision and Mission

Purpose, vision and strategic plan

We will create a world-leading innovation campus, where tomorrow's solutions are developed and realised, and be celebrated as a hive of commercial and social enterprise. In achieving these we will focus on five priorities:

1. Innovation District (ID) Manchester.

We will transform our former North Campus into ID Manchester, a world-class environment where breakthrough ideas are turned into reality.

2. Health innovation.

We will accelerate the benefits of our research through our relationship with the regional health and social care services, notably through Health Innovation Manchester, and the establishment of our Christabel Pankhurst Institute for Health Technology, Research and Innovation.

3. Graphene commercialisation.

We will create a thriving knowledge-based economy around graphene and 2D materials.

4. Innovation ecosystems.































We will build the ecosystems for the next innovation opportunities, including facilities to support our city's clean growth mission and driving innovation through Creative Manchester.

5. Enterprise through knowledge and commercialisation.

We will transform the scale of our intellectual property commercialisation activity, implement Northern Gritstone, engage staff and establish entrepreneurship

To realise these priorities, we will ensure that our people are empowered to take advantage of these initiatives and that we have fit-for-purpose support structures for all aspects.

Generation Type of Human Resource

CATEGORY	BUILDERS	BABY BOOMERS	GENERATION X	GENERATION Y	GENERATION Z	GEN ALPHA
Slang terms	 <p>We prefer proper English if you please</p> <p>Born: < 1946 Age: 74+</p>	 <p>Be cool Peace Groovy Way out</p> <p>Born: 1946-1964 Age: 55-73</p>	 <p>Dude Ace Rad As if Wicked</p> <p>Born: 1965-1979 Age: 40-54</p>	 <p>Bling Funky Doh Foshizz Whassup?</p> <p>Born: 1980-1994 Age: 25-39</p>	 <p>🔥 Fam GOAT Slay Yass queen</p> <p>Born: 1995-2009 Age: 10-24</p>	 <p>lit yeet hundo oof rn idrc</p> <p>Born: 2010-2024 Age: under 10</p>
Social markers	World War II 1939-1945	Moon landing 1969	Stock market crash 1987	September 11 2001	GFC 2008	Trump / Brexit 2016
Iconic cars	 Model T Ford Final, 1927	 Ford Mustang 1964	 Holden Commodore 1978	 Toyota Prius 1997	 Tesla Model S 2012	 Autonomous vehicles 2020s
Iconic toys	 Roller skates	 Frisbee	 Rubik cube	 BMX bike	 Folding scooter	 Fidget spinner
Music devices	 Record player LP, 1948	 Audio cassette 1962	 Walkman 1979	 iPod 2001	 Spotify 2008	 Smart speakers Now
Leadership style L - Leader l - New leaders	 Controlling	 Directing	 Coordinating	 Guiding	 Empowering	 Inspiring
Ideal leader	Commander	Thinker	Doer	Supporter	Collaborator	Co-creator
Learning style	Formal	Structured	Participative	Interactive	Multi-modal	Virtual
Influence/advice	Officials	Experts	Practitioners	Peers	Forums	Chatbots
Marketing	Print (traditional)	Broadcast (mass)	Direct (targeted)	Online (linked)	Digital (social)	In situ (real-time)

Foundation for Industrial Growth

The 5 Foundations of productivity that support the core vision of the university and accelerate economic development



Ideas

The world's most innovative economy is driven by ideas



People

Good jobs and greater earning power for all



Infrastructure

Infrastructure to support and drive the vision



Business Environment

The best place to start and grow a business



Places

Prosperous communities within the ecosystem

Exercise

If you were to put a coin into an empty bottle and then insert a cork into the neck, how could you remove the coin without taking out the cork or breaking the bottle



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DIGITAL . INNOVATION . SKILLS . ENTERPRISE

**DEVELOPING 5 YEARS
INNOVATION & RESEARCH
COMMERCIALISATION
STRATEGY OF MY
UNIVERSITY (2023 -2028)**

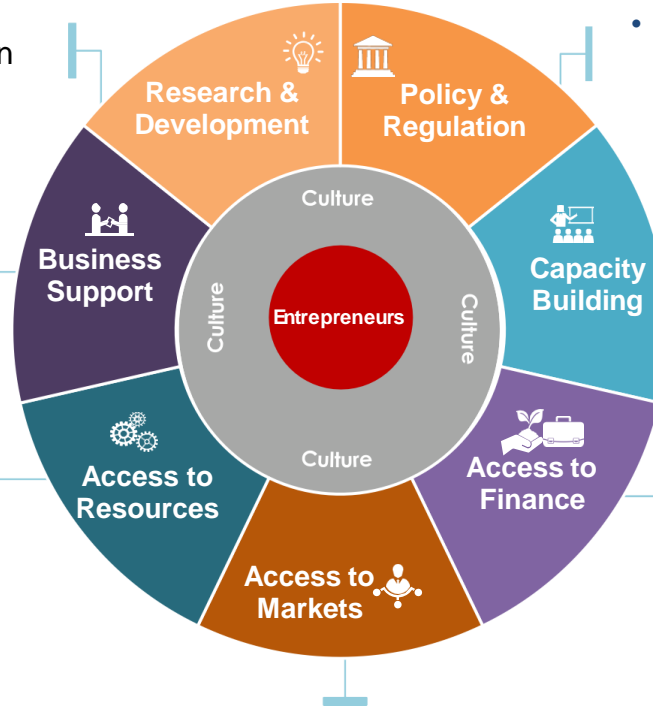


The entrepreneurial ecosystem consists of interconnected determinants and various actors responsible for ensuring that these factors function in a way that is mutually reinforcing...

- Foster a culture of innovation

- Nurture entrepreneurs through mentoring, coaching, consulting and support services

- Access to important data, information, tools and infrastructure



- Foster an enabling and competitive environment for doing business through policy and regulatory frameworks

- Identify and train through workshops, bootcamps and vocational skill acquisition activities

- Provide direct and indirect funding

- Linkages with distribution networks/domestic and international trade opportunities

Breaking the Entrepreneurial Stereotype



Types of Entrepreneurs

**Innovating
Entrepreneurs**

Introduce fresh and original concepts to the market.

**Drone
Entrepreneurs**

Traditional, but no newness. .

Follow successful models and strategies.

**Imitative
Entrepreneurs**

**Fabian
Entrepreneurs**

Traditional, but gradual. Emphasis is placed on stability and sustainability



Using Innovation to strengthen Entrepreneurship

Ventures

We will support the formation of companies and social enterprises in our current pipeline from the Colleges to increase the number and likelihood of success of the pipeline

Academics

Strengthen our capability and awareness in innovation activities related to commercial realisations. Incentivise academic participation in entrepreneurship and broaden mission driven social enterprise

Staff and Students

Provide training, expert advice, mentoring, competition and event delivery, news and comms, mentorship, IP/finance/legal advice and proof of concept support to students and non-academic staff



Funding Opportunities

Refine our translation and commercialisation activities and create an investment fund to bridge funding gaps and to co-invest with external investors.. Broker external partnerships and identify funding options

Commercialisation

Identify ways to increase the amount of core university funding supporting commercialisation over time, calibrated against demonstrable progress in growing a project pipeline.

Innovation Hub /District

Bridging the University and Industry will support new industry-university clusters. The TTO will support the development of the clusters through identifying sector experts, intellectual property to be protected and enabling enterprise formation.

What is our Innovation Strategy Ecosystem



Soft Support

We need the ability to support the formation of companies and social enterprises in our current pipeline from the universities. 'Soft support' includes the elements that a new venture, enterprise, spin-out, licence agreement needs

Innovation Clusters

Once opportunities have been identified in the universities, we will work with sector experts to define the tools needed for their development. We will define the tools needed for their development, identify leadership, clarify missions, broker external partnerships and identify funding options.

Co-location and GRID

It requires co-location of different stakeholders in order to generate the cross-fertilisation that enables translation of research into benefits. ●

Investment

Funding for the ecosystem will be generated from internal and external sources, including from mission-driven funding streams that form part of the R&D Roadmap.

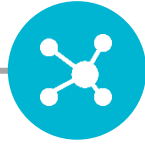
Communication & Culture

Engage with the research community to address the uncertainty and relevance of innovation activities to the University and the potential opportunities



SOFT SUPPORT

- Renew the University's IP and HR policies
- Develop an effective collaborative framework
- Undertake opportunity audits
- Define and deliver structured support packages
- Invest in materials and resource
- Facilitate entry to external competitions and programmes



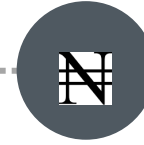
INNOVATION CLUSTERS

- Identify and define a target of five innovation clusters
- Develop leadership, "brand" and co-ordination resource
- Assign Research/Business Development resource to build networks of partnerships



CO-LOCATION & GRID

- Review services offered and management of existing hubs
- Design, cost, and identify internal/external funding sources
- Design an operational blended space model
- Define and build hub(s) for partner co-location
- Specify, cost and ultimately deliver the service offer
- Build a pathway that provides tenancy terms and conditions
- Develop the hubs



INVESTMENT

- Create alignment between funders
- invest in research/business development managers
- invest in dedicated support
- Invest in support to assist students and academics
- Invest in communications capacity and expertise
- Initiate an investment fund
- Source public sector capital investment for physical infrastructure



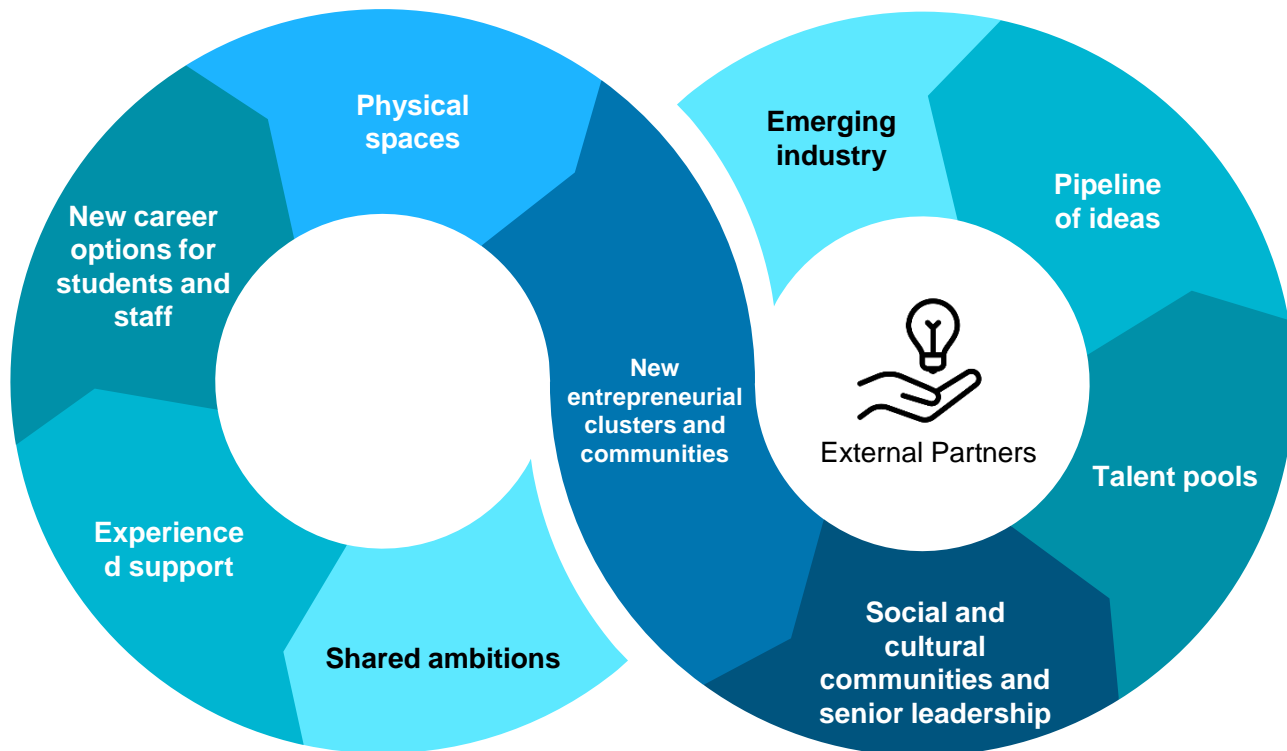
COMMS & CULTURE

- Socialise the strategy
- Create internal materials (webpages, news feeds, regular updates)
- Develop a schedule of seminars and networking events
- Build the innovation strategy into all communications and reporting
- Explain the vision and the roadmap to external funders

What Is Our Vision And Goals?

Within 5 years, we will build an innovation ecosystem that is the engine for growth in your state.

Within 10 years, we will have the scale and wherewithal to be a major contributor through new sectors, clusters and industries to the prosperity and well-being of your country.



Sample Innovation Strategy 5 Year Overview

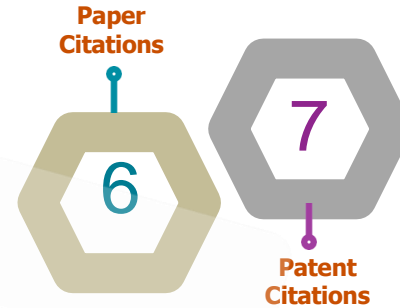
	2023	2024	2025	2026	2027
	PHASE 1 GOAL		PHASE 2 GOAL		
Soft Support	Renew University's I policies. Develop framework Facilitate opportunities and Build team to define and deliver structured support packages				
Clusters		Identify and define targets of 5 translational clusters Develop leadership and brand Build networks of partnerships			
Co-location			Design, cost and deliver innovation Hub Define and build hub(s) in partnerships with an expert		
Investment		Align funds to focus on opportunities Initiate an investment fund to back enterprises Source public sector capital investment			
Comms & Culture	Develop and deliver Communications and Engagement Strategy as part of Innovation Strategy Develop suite of internal reporting and KPIs to demonstrate the impact of the innovation ecosystem Develop and implement initiatives that address the priority of innovation and entrepreneurship				
Cost					
Outcome	Create the Technology Transfer Office (TTO) and expand the volume and quality of opportunities	Increase the knowledge and awareness in the university community of the potential benefits of an innovation ecosystem	Funding models that puts your university in the leading position	Hub(s) that promotes the growth and success of the ecosystem as a whole	A fully integrated innovation ecosystem directly contributing to our World Changing Strategy

How we measure impacts

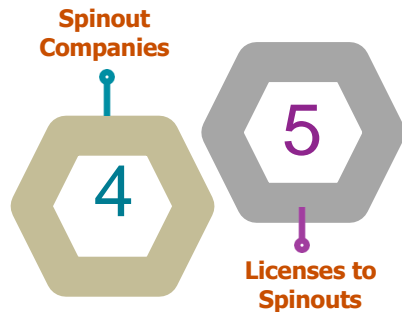
COMMERCIALISATION IMPACTS



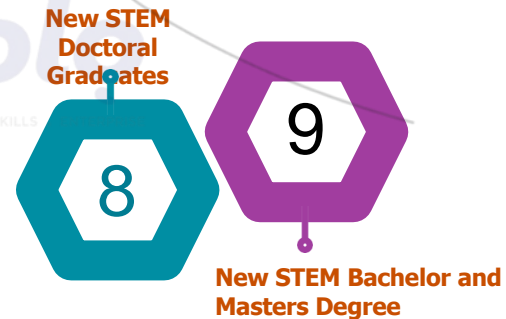
RESEARCH IMPACTS



ENTREPRENEURSHIP IMPACTS



TEACHING IMPACTS



What Universities should be doing



Prioritize Research

- Attention and Funding must be given to research and research outcomes



Compete hard for and retain star faculty researchers

- Build the capacity of the researchers and staffs of the universities



Run an efficient outcome focused technology transfer operations

- Paying close attention to the size, professional makeup, and policies of the technology transfer office (TTO). I-operating a well-funded seed fund, interacting well with faculty and staff, forging deep connections with the industry



Build culture of Innovation and Entrepreneurship

- Good innovation culture magnets and attracts other stakeholders in the Innovation ecosystem,



Engage closely with the Industry and society

- Universities can amplify the benefits of the industry and society through purposeful engagement



Monitor, quantify and disclose innovation impact results

- Publish brief report at least annually on the progress and impacts made so far.

What should our Govt, Policy Makers, HNIs be doing?

Increase public sector support for university research

- Increase intervention fund to support research.
- Increase fund subvention to institutions .

Invest in Innovation Hubs

- The innovation hubs will aid to bring nonacademic entrepreneurs, VCs, business leaders, funders etc that can catalyze research outcomes.

Support Technology Transfer Operations and other enablers of innovation

- Consideration should be made to support the expansion of the Technology Transfer Operations and other Innovation promoting activities

Understand how institution vary in their Innovation growth productivity.

- All universities do not have the same focus Some smaller universities can achieve remarkable productivity in converting research outcomes
- Some smaller universities can achieve remarkable productivity

Enabling platform to develop and build the capacity of researchers and talents

- We should provide a platform the develop and grow the knowledge base of our researchers and talents.



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DIGITAL • INNOVATION • SKILLS • ENTERPRISE

Yoruba ~ Opolo

English ~ The brain

Hausa ~ Kwakwalwa

Igbo ~ Uburu

Arabic ~ Mukhkh

Chinese ~ 腦 Nǎo

French ~ Le cerveau



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Thank
you!