



**BRIDGING THE RESEARCH-  
POLICY-INNOVATION GAP IN  
NIGERIA: AN IMPERATIVE FOR  
NATIONAL DEVELOPMENT**

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**By**

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## PREAMBLE

- Host Vice-Chancellor, Professor Adetokunbo Babatunde Sofoluwe, FAS; his amiable wife and a dear sister, Dame Funmilayo; other Vice-Chancellors (present or represented); Deputy Vice-Chancellors; My Lords Spiritual and Temporal; Distinguished Colleagues; Ladies and Gentlemen. Please, permit me to recognize my Team from Caleb University, Imota, Lagos State.
- I am grateful to God and to the organizers of this Conference/Research Fair for inviting me to make this presentation. I salute the gatekeepers of the noble tradition of research and scholarship at the University of Lagos, in which I have been steeped for ever twenty-four years. I recall with gratitude my membership of the University of Lagos Central Research Committee (CRC) from 2002 to 2010, which I relinquished when I took up my current assignment, one year and one day ago. For the record, I was nominated by Professor Babajide Alo, FAS, who accepted to be chair of the CRC on the condition that he nominated the members of the Committee. I subsequently served under two successive Deputy Vice-Chancellors (Academic and Research), distinguished academics in their own right, Professors Soga Sofola and Modupe Ogunlesi, from whom and other members of the CRC, and, indeed, all the applicants for grants that appeared before the CRC, I learnt a lot about scholarship, research and life. This was a vital part of my development as a scholar and researcher. Permit me to recognize my Team from Caleb University.

## RESEARCH AND DEVELOPMENT-1

- Research : quest for knowledge in individual and corporate capacities to serve certain ends.
- To ask the what (definition), why and why not (inquiry), how (process), where (location/jurisdiction) ,who (subject of inquiry) and when (timing) of issues, entities, personalities or phenomena being studied.
- Research is either basic or applied.
- Basic research: experimental or theoretical investigation in pursuit of new knowledge, not necessarily intended for any practical use or application.
- Applied research: geared towards acquiring new knowledge directed primarily towards achieving a specific practical objective.
- Any research must pass the test of quality assurance through rigorous peer review.

## RESEARCH AND DEVELOPMENT-2

- Societal development is largely a product of the extent to which the outcome of research is harnessed for national development.
- Rise of the great industrial and military powers of the world traceable to incremental research by their nationals
- US National Science Board (2008) made the following assertions:
- Basic research fuels technological innovations and is critical to fostering the vitality of the U.S. science and technology enterprise and the growth of highly-skilled jobs.
- Scientific and technological advances that have "led to [US] ... remarkable ability to create new industries and jobs, improve the standard of living for people, and provide sophisticated technology that ensures ... national security can be traced back to the outcomes of basic research."

## DISCONNECT BETWEEN RESEARCH AND POLICY IN NIGERIA

- Impact of the Academies “had not been felt so far in the efforts to accelerate the nation’s development.” (Minister Zaku, March 2010)
- Academies charged to play “a more critical role in advising the government” on how to achieve “sustainable development.” (Minister Zaku, 2010)
- “Nigeria has not attained any appreciable capacity to translate successful R&D [research and development] results into products. The manufacturing sector now contributes a mere three percent to GDP and most of the technologies Nigeria requires to sustain its economy are imported, expensive and difficult to adapt.” (Minister Ka’oje Abubakar, March 2011)
- More than 100 novel products in engineering, agric, health and energy, e.g. an electronic voting machine, a cassava peeling machine and an organic fertilizer
- Financial institutions and investors had failed to partner with the government to commercialize these products.

## APATHY OF PRIVATE SECTOR

- Cheaper for pharmaceutical and other industries to import ready-made R&D (Abutu, 2011).
- Dominant import dependency and mercantile culture that rests on quick returns from our proverbial “buying and selling” activities.
- Entrenched culture of procurement, an easy means of primitive accumulation, makes reliance on foreign technology attractive .
- The issue is not the dearth of results of scientific research
- Investors, financial institutions and the government have not done enough to invest in the commercialization of these findings.
- Demand or policy-driven research as solution?

## **DEMAND/POLICY-DRIVEN RESEARCH: POSSIBILITIES**

- Research will be well funded
- Could produce robust or rigorously peer-reviewed findings that instigate positive policies.
- Findings are almost certain to be channelled into the production of goods or some other public use.

## **DEMAND/POLICY-DRIVEN RESEARCH: PITFALLS-1**

- Funders dictate use of findings
- Findings often exploited to serve pre-determined ends, which might be self-serving and contrary to the public interest.
- Efforts to promote “evidence-based policy ... are sometimes undermined by politicians seeking ‘policy-based evidence’ – research that can be used to justify politically-motivated action.” (Dickson, 2009)

## **DEMAND/POLICY-DRIVEN RESEARCH: PITFALLS-2**

- Can produce controversial claims by partisan or compromised scientists, e.g. eugenics movts. - Nazi master-race ideology (1930s)
- “Bad science used to make social choices ... brings bad decisions.” (Dickson, 2009)
- Research findings may be used to make spurious safety claims for controversial products or to legitimize policies designed to benefit only a small clique (cf. Pakistan)

## **BRIDGING THE RESEARCH-INNOVATION GAP-1**

- **Building Industry-Academy Links:**
- Staff exchanges between research institutes/universities and industry
- Secondment of lecturers to industry
- University-industry research appraisal panels
- Joint workshops/seminars to disseminate research findings for possible industrial application (Oloyede, 2010)

## **BRIDGING THE RESEARCH- INNOVATION GAP-2**

- **Engagement with the Power Establishment:**
- Aloofness or cold detachment, not an option.
- Policymakers: “scientists have not noticeably engaged with the issues.” (Chege, 2005)
- Uganda ex-VP, Speciosa Wandira Kazibwe: “You blame politicians for not reading your journals, but the fact is that you also do not read their policy briefs.” (Chege, 2005)

## **BRIDGING THE RESEARCH- INNOVATION GAP-3**

- Make research findings accessible to policymakers in a form or language they can understand
- Link researchers with policymakers
- Train policymakers in how to understand or appreciate scientific evidence. (Parkhurst, 2011)

## **BRIDGING THE RESEARCH-INNOVATION GAP-4**

- **Alliance Building and Strategic Timing:**
- Broad alliances with “policy entrepreneurs”
- Go beyond Ministers of science and technology, culture, health, labour, etc.
- Win support of finance ministers and bureaucrats. (Chege et al, 2007)
- Make allowance for sufficient time to inject scientific findings into policy and budget

## **BRIDGING THE RESEARCH- INNOVATION GAP-5**

- **Boosting the Capacity and Clout of the Academies:**
- “The devt of scientific academies could help to put science to work in Africa.” (*Nature*, 2006)
- National academies in the West had long played significant roles in “raising the level of public discussion on technical issues” & routinely provided their govts with technical advice on issues of public policy

## **BRIDGING THE RESEARCH-INNOVATION GAP-6**

- African academies: “historically prestigious but largely honorific organisations for respected and elderly scientists.” (Scott, 2006)
- African academies “have had little influence” on the wider society and suffer from “lack of clout.” (*Nature*, 2006)
- They lack “the political skills to get ... heard in government or in the media.”

## **BRIDGING THE RESEARCH- INNOVATION GAP-7**

- Consequently, Academies must build their own internal capacities to conduct research
- It is “extremely difficult” to get politicians to listen to independent scientific advice.
- Academies to devise “proactive means of getting their message out to politicians, the media and the wider public.” (*Nature*, 2006)
- Concerted & sustained effort reqd to inject informed scientific opinion into the agenda and decision making process of govt



## **BRIDGING THE RESEARCH- INNOVATION GAP-8**

- As “academies offer a mechanism by which scientists can influence policy, ... [if] politicians ask for advice, academies must be ready to give it.” (Crewe, in Scott, 2006)
- UK govt “doesn’t think twice” about seeking Royal Society assistance on matters of public policy: sustained “relationship building.” (Ibid)
- Nigerian govt should respect and consult its own academies, not “expats” (expatriates) from the Global North

## **BRIDGING THE RESEARCH- INNOVATION GAP-9**

- **A System of Incentives:**
- Funding research & providing facilities insufficient to produce quality research
- Researchers as human beings will respond positively to incentives.
- Rewards for outstanding publications, patents and other indices of quality research (Ibidapo-Obe, 2010). (cf. US-based Nigerian Professor of History & Meiji aristocracy of talent)

## **THE IMPERATIVE OF RELEVANT & APPLIED RESEARCH-1**

- Nigeria needs relevant & applicable research:
- A commentary on an identifiable problem
- To effect a change, solve problems
- Pointing towards workable solutions.
- Basic research applied to societal needs, registers a more enduring impact.
- Case study: devt of port engineering in nineteenth-century Japan - Nobiru port

## **THE IMPERATIVE OF RELEVANT & APPLIED RESEARCH-2**

- Nigeria: perennial failure of motor roads; collapse of buildings, waste management (non-biodegradable sachets, wrapping leaves, maize husks, etc) - problems of everyday life.
- Cf. Japanese seaweed-mortar: an enduring and weather-resistant wall plaster.
- A Nigerian solution to the water-saturated and bloated walls of buildings and perennial potholes on our roads?
- Can the wealthy commit resources to this?

### **THE IMPERATIVE OF RELEVANT & APPLIED RESEARCH-3**

- Social and human sciences: governance and human capacity development
- Focus on the deficit in transparency, efficiency, inclusiveness and sustainability.
- Politics of small beginnings: tackle the challenges of governance, from the local level.
- Local government: megacity of Lagos (or any other locale) as a good laboratory.

### **THE IMPERATIVE OF RELEVANT & APPLIED RESEARCH-4**

- Questions about operation of LG system:
- What has worked and what has not?
- How to ensure efficient service delivery, popular participation, credible representation & workable development blueprints?
- How have the local government structures, esp. LCDAs, fared?
- Is the Lagos model transferable?

## **THE IMPERATIVE OF RELEVANT & APPLIED RESEARCH-5**

- How to integrate community-based organizations/informal associations into the structure of governance?
- Comparative perspectives: S. Afr. & Senegal?
- Macro level: decentralisation & fiscal fed.
- Basic, comparative research: Spain
- Transferable or applicable lessons?
- Collaborative/inter-disciplinary (cf. Akpochafo, 2011; Oloyede, 2010)

## **RESEARCH & POLICY COORDINATION**

- Present situation: dispersal under ministries of agriculture, health, water resources, education and culture; multiplicity of academies, often at loggerheads.
- Min of Science & Tech should supervise all research institutes – Bindir (in Abutu, 2011)
- Danger of over-centralization & red-tape: coordination, funds disbursement and policy?

## **COMPARATIVE PERSPECTIVES- SOUTH AFRICA**

- **Research Coordination in South Africa:**
- Foundation estab. by Act (No 23 of 1998).
- Sequel to audit of Department of Arts, Culture, Science and Technology (DACST).
- Took over functions & activities of Human Sciences Research Council (HSRC), Foundation for Research Development (FRD) and the Centre for Science Development (CSD) – which had serviced the various sectors of the research community.

## **COMPARATIVE PERSPECTIVES- SOUTH AFRICA**

- NRF Mandate: promote & support research via funding, human resource devt & provision of facilities
- Facilitate creation of knowledge, innovation & devt in all fields of science & tech, including indigenous knowledge
- Goal: improving quality of life of citizens of the Republic of South Africa through development-oriented research & innovation (<http://www.nrf.ac.za/>)

## COMPARATIVE PERSPECTIVES- CANADA

- **Canadian Technology Clusters:**
- National Research Council of Canada, coordinates the 11 technology clusters.
- Aimed at keeping pace with rapid global technological change and innovation.
- Council organized the country's "best minds and resources around focused and pioneering ideas." (<http://www.nrc.gc.ca>)

## COMPARATIVE PERSPECTIVES- CANADA

- Research into specific issues of national importance, clustered in designated research institutes, universities or research communities
- Eleven technology clusters operate as follows:
- Charlestown, Prince Edward Island – Nutrisciences and Health Cluster
- Edmonton, Alberta – Nanotechnology Cluster
- Fredericton and Moncton, New Brunswick – Information Tech. and e-Business Cluster;

## **COMPARATIVE PERSPECTIVES- CANADA**

- Halifax, Nova Scotia – Life Sciences Cluster
- Ottawa, Ontario – Photonics Cluster
- Regina, Saskatchewan – Sustainable Infrastructure Cluster
- Saguenay-Lac-St-Jean, Quebec – Aluminium Transformation Cluster
- Saskatoon, Saskatchewan – Plants for Health and Wellness Cluster
- St. John's, Newfoundland and Labrador – Ocean Technology Cluster

## **COMPARATIVE PERSPECTIVES- CANADA**

- Vancouver, British Columbia – Fuel Cell and Hydrogen Technologies Cluster; and
- Winnipeg, Manitoba – Biomedical Technologies Cluster.
- A commercial success: "Canadian govts, industries and academia [pooled] their resources around ambitious goals."
- Attracted "world's best and freshest ideas;" "pool of highly skilled workers;" "brain gain" for Canada (<http://www.nrc.gc.ca>).

## PROPOSAL FOR COORDINATION-1

- Clearly defined & articulated national research policy
- Estab a coordinating national research foundation or council (cf. Ibidapo-Obe, 2010).
- Proposed Foundation or Council: demand-driven research (Bindir); focused on identifiable national needs; findings readily commercialized for the common good.  
Funding: Tertiary Education Trust Fund, private sector and donor agencies.

## PROPOSAL FOR COORDINATION-2

- Draft bill crafted by Nigerian Academy of Science: to create a body with functions and competencies comparable to the NRF of SAfr?
- Will it accommodate all forms of scholarly endeavours and interests?
- Draft bill should be widely disseminated to make it serve the purpose of everyone in the research community and the nation



## CONCLUSION-1

- Centrality of universities, research institutes & national academies to knowledge production for devt.
- Rejuvenation of our national academies
- A national research foundation, to curtail dissipation of energy and resources
- Advantages & dangers of demand-driven research,
- Relevant and applicable research grounded in sound and peer-reviewed basic research

## CONCLUSION-2

- Greater funding for research, nurture aristocracy of talent; material incentives for outstanding scholarship & research
- A lot will be achieved through concerted effort, proper funding and utilization of research findings.
- No alternative to indigenized knowledge and endogenous development.
- Ultimately, our salvation is in our hands.

THANK YOU  
FOR LISTENING.  
GOD BLESS!