African Network for Drugs and Diagnostics Innovation (ANDI) - lessons learned

Solomon NWAKA, Acting Executive Director, ANDI.

Joint Technical Symposium by WIPO/WTO/WHO, June 2013
Global landscape for product R&D and innovation

- PDPs, PPPs & industry activities
- Academia – screens, genomics, MedChem, ADMET
- Government or intergovernmental effort
- Specific access and product procurement initiatives
- Funding from government & philanthropy
- Open source & open innovation approaches

Presently ANDI is the only product R&D and access coordination mechanism within Africa
'Innovation gap' remain: e.g. drugs

Nwaka et al. 2009
R&D and manufacture in Africa

• Many R&D institutions with fragile infrastructure, but many institutions with excellent capacity and infrastructure also exist
  • Institutions not leveraged to support local health needs, funding is weak
• Many companies focusing on local production but few with GMP status
• Several declarations support enhanced effort
  ▪ Traditional knowledge & medicines
  ▪ AU PMPA Business plan, approved by African Heads of State
  ▪ Algiers Declaration of African Ministers of Health 2008
  ▪ Regional/national efforts on manufacturing & regulatory
• Challenge - lack of collaboration, coordination & funding
• Innovative mechanisms like ANDI seeking to address these challenges in Africa should be supported
Evolution and background of ANDI

- **2008**: ANDI concept launch
- **2009**: ANDI Business plan launch
- **2010**: ANDI operation launch
- **2011+**: ANDI implementation, UNECA + Hubs
Lack of collaboration in Africa...HIV/AIDS research

Only 5% of articles are in collaboration between two or more African countries

SOURCE: Thomson Web of Science, UCINET
Good news - competency research centers exist

- Cities with 30 or more articles published in the 2004 - 2008 period
- Total of 90 cities in 27 countries
- 16,647 biomedical articles led by African authors included in analysis
Mission Statement

"To promote and sustain African-led health product innovation to address African public health needs through the assembly of research networks, and building of capacity to support human and economic development"

Vision

"Creating a sustainable platform for health innovation in Africa to address Africa’s health needs"
Governance

• Hosting Agency
  ▪ Transition from UNECA to another entity in Africa

• Board
  ▪ Co-Chaired
    – Minister of Health, Kenya
    – Minister of S &T, S Africa
  ▪ 12 members with >75% from Africa
  ▪ WHO, AfDB & host agency

• Secretariat
  ▪ Operates through regional hubs
Technical progress & challenges

• 2 projects funded
  • Medical device for resp distress in neonatal children in Africa (Malawi)
  • NIPRISAN for sickle cell disease (Nigeria)

• Working to fund fellowships at CoEs

• Technical publication on CoEs

• Training for CoEs on IP management in collaboration WIPO

• 5 network projects awaiting funding

• Challenge – funding, HR & administrative
Projects identified through open call for proposal

Over 200 applications received & reviewed
Capacity for innovation exist in Africa but need to be coordinated for optimal result
Covers product R&D, manufacturing, commercialization
CoEs identified through open call

Over 120 applications received
Capacity for innovation exist in Africa but need to be coordinated for optimal result
Covers product R&D, manufacturing, commercialization
38 recognized CoEs

National Institute for Pharmaceutical Research and Development
University of Ibadan
University of Lagos
University of Bamako
Kumasi Center for Collaborative Research
LaGray Chemical Co. Ltd
Noguchi Memorial Institute for Medical Research
University of Buea
Institut de recherches médicales et d'études des plantes médicinale
African Institute of Biomedical Science and Technology
Stellenbosch University (2)
The Biovac Institute
University of Cape Town (3)
IThemba Labs
South African Medical Research Council
Theodor Bilharz Research Institute
Vacsera (2)
Vacsera Manufacturing
National Center for Research
Joint Clinical Research Center
Makerere University
KEMRI Production Unit
Institute of Primate Research
Kenya Medical Research Institute
Kenya Agricultural Research Institute
Kilimanjaro School of Pharmacy
University of Zambia
Botswana Vaccine Institute
The Biovac Institute
University of Witwatersrand (2)
Council for Scientific and Industrial Research
IThemba Pharma
University of Witwatersrand
South African Medical Research Council
Regional Institute for Biological Safety
ANDI regional hubs being established

- Agreement finalised with Nigeria on hosting of West African hub at NIPRD Abuja
  - Financial commitment from Nigeria
- Ongoing discussion with Kenya on the East African hub at KEMRI
- Ongoing discussion with South Africa regarding Southern Africa hub at MRC
- New call for North & Central African hubs or other
External review highlight opportunities & challenges

• ANDI is unique & needed, mission & vision valid

• Transitional challenges at UNECA Addis identified
  • New hosting arrangement for ANDI being finalised

• Implement robust communication & resource mobilization strategy

• Despite challenges, ANDI on track with agreed milestones with EU funding & business plan
Lesson learned

• Capacity for innovation exist in Africa
  ▪ Available capacity not well leveraged to solve Africa’s health challenges

• Fragmentation of efforts & funding need to be overcome

• Capacity building that utilizes existing capacity to be emphasized
  ▪ Build capacity around projects - ANDI CoEs provide framework

• Need for enhanced intra-African, S-S, N-S collaboration & partnerships

• Enhanced government investment in R&D, local production & access will ensure sustainability

• Support country level and regional initiatives
  ▪ AU PMPA business plan
  ▪ ANDI and other regional initiatives

• Opportunity for collaboration with WIPO, WTO, WHO and other organizations
4th ANDI Mtg: 5th scheduled for 1-3 October 2013 in Nairobi
Acknowledgment

- WHO incl. TDR, PHI, AFRO, EMRO
- Economic Commission for Africa (UNECA)
- African Development Bank (AfDB)
- European Commission (EC), also for financial support
- African Union (AU)
- African institutions & scientists
- Nigeria for funding commitment
- ANDI STAC