The African Renaissance Institute of Science & Technology (ARIST)

Nosa O. Egiebor Environmental Engineering Program Chemical Engineering Department Tuskegee University, Tuskegee, AL 36088 USA

Outline of Presentation

- Introduction
- ARIST Mission
- Approach
- Recent Developments & Special Cases
- Current ARIST Leadership
- Conclusion

Introduction

ARIST \rightarrow A partnership of science & engineering leaders from the **Diasporas** and from **African institutions** united in a desire to work together for capacity building in Africa.

ARIST is now a registered *non-profit educational* organization with a secretariat in Princeton, New Jersey, USA.

The inaugural meeting of ARIST took place at Princeton University in December 2008.

ARIST is coordinated by an African Renaissance Committee (ARC) that includes scientists from some of the leading institutions in Africa and around the world.

ARIST Mission

- To help Africa train Africans to solve African problems in Africa → Knowledge for wealth creation in Africa.
 - Assist in the economic transformation of Africa through targeted entrepreneurship-based advanced S&T education and research.
 - Help train a critical mass of Africans with the capacity to solve problems and add value to Africa's natural resources
 Capacity Building.
 - Help refocus emphasis on quality S & T education/research in support of economic & technological developments in Africa for poverty alleviation.

The ARIST Approach

- Mobilize scientists and engineers in Africa and in the Diasporas in support of ARIST mission.
- Employ a model involving the development of a Network of Centers of Excellence throughout Africa.
- The Centers are based in existing African Institutions that agree to partner with ARIST & serve as nodes of excellence → MOUs

ARIST Approach (Contd.)

■ The centers focus on *interdisciplinary S&T education & research areas* that address regional needs → global opportunities.

ARIST is interested in partnering with existing institutions, organizations, and capacity building networks in Africa -> RISE Network, AMMSI, AAS.

Solicit for funding from agencies around the world to support ARIST mission.

Recent Developments

- Signed MOU and helped in developing MS & PhD curricula → the International Institute for Water & Environmental Engineering (2iE) in Burkina Faso.
- Mobilized academics to teach two ARIST graduate courses at 2iE:
 - A course on Advanced Water & Wastewater Treatment.
 - A course on Environmental Aspects of Mining, Mineral Processing & Extractive Metallurgy.

Recent Developments (contd.)

- Signed additional MOUs with the following institutional partners:
 - Science Initiative Group (SIG) RISE Network → SSAWRN, AMSEN, WIO-RISE, AFNNET, & SABINA.
 - University of Connecticut, USA
 - National Agency for Science and Engineering Infrastructure (NASENI), Abuja, Nigeria
 - African Institute of Science & Technology (AIST) Arusha, Tanzania.***

Current ARIST Special Cases

AIST – Arusha, Tanzania – Prof. Burton Mwamila (VC) and leadership team.

- Assist in development of new degree programs & curricula.
- Assist in recruiting faculty \rightarrow International.
- Plan for faculty & student exchange programs.
- Help identify international funding sources and write joint grant proposals.

University of Liberia – Prof. Emmet Denis (VC)

- Help reactivate their engineering programs.
- Assist in development of degree programs and curricula
- Collaborate to raise funds globally
- Help develop faculty exchange programs with Diaspora scientists

Recent Developments (Contd.)

Currently negotiating MOUs with:

- Kwame-Nkrumah University of Science & Technology, Ghana.
- University of Benin, Nigeria.
- Alexandria University, Egypt.
- Obafemi Awolowo University, Nigeria
- MINTEK, Inc., South Africa

Recent Developments (Contd.)

Additional Institutional Partners:

- Princeton University, USA
- Institute for Advanced Study, USA
- Tuskegee University, USA
- Penn State University, USA
- Massachusetts Inst. of Tech., USA
- Stanford University, USA
- University of California San Francisco, USA
- University of Chicago, USA
- University of New South Wales, Australia
- ISMANS, France
- University of Nance, France
- University of Mines & Technology, Ghana
- University of Zimbabwe, Zimbabwe
- Addis Ababa University, Ethiopia
- University of Ibadan, Nigeria
- Federal University of Technology Akure, Nigeria
- University of Dar es Salaam, Tanzania
- University of Nairobi, Kenya
- Makerere University, Uganda
- Rhodes University, South Africa
- University of the Witswatersrand, South Africa
- Mintek, South Africa

Current ARIST Leadership

■ African Renaissance Committee → The governing body of ARIST (15 members).

■ Executive Committee → day-to-day Administration:

- Prof. Wole Soboyejo Chair
- Prof. Nosa O. Egiebor Vice Chair
- Ms. Arlen Hastings Secretary
- Profs. Haile Debas & Paul Ginies co-Directors, Fund Raising Committee.
- Prof. Francois Tsobnang and Dr. Kunle Soyemi co-Directors, Europe
- Prof. Soji Adesina Director, Australasia
- Prof. Amadou Hama-Maiga Director, Africa

Conclusion

- The next African Renaissance Committee meeting is scheduled for December 2009.
- ARIST extends invitation to interested individuals, organizations, & institutions to explore partnership & collaboration possibilities.