How to Attract Private Sector Investment and Participation in the Improvement of Science and Technology Centers of Excellence in Africa

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Agenda

- Welcome
- Brief Personal Background
- Private Sector Modified approach wrt science and technology investment
- Industries/Private Sector Expectations
- Methods/Approaches to secure funding
- Other Methods/Approaches to work toward securing funding
- Leverage Desires of Investors
- Obstacles for African Countries
- Potential Forward Approach/Example of Technology Strategy

Brief Personal Background

- BSAE University of Michigan (1984)
- Working in private sector as engineer and engineering manager for 22 years for such companies as
  - Parker Hannifin, McDonnell Douglas and Boeing
- Co-founder of charitable community service science and technology organization, "The Pan African Technical Association (1997)
- License U.S. Private Pilot

- Chairperson-International Committee Universal Negro Improvement Association and African Communities (UNIA & ACL)
- Co-host KPFK 90.7 FM Pacifica Radio Program "Innervisions and African Perspective"
- Recipient "Pioneer of the Year" award from National Society of Black Engineers (NSBE) March 2006

Private Sector Modified approach for Science and Technology Investment

- Industry is looking for Science and Technology Centers of Excellence (SATCOE's) to be partners/suppliers
  - Not just the traditional research organizations
- Industry is looking to establish contact type arrangements
  - Instead of research grants
- Contracts Types
  - Firm Fixed Price
  - Time and Material
  - Cost Plus type contracts

Industry/Private Sector Expectations

- Technology Must be Transferable
  - Technology that SATCOE has or wants to develop must be transferable
    - Transition into a current product to reduce cost
    - Incorporate into a planned/future product to give the company a competitive edge to win future contracts
  - SATCOE will be able to attract investments by showing demonstrated ability to meet contract requirements
    - Schedule (Deliver on Time)
    - Must meet performance/design requirements
    - Meet cost requirements

Industry/Private Sector Expectations

- Know your partner
  - SATCOE's need to identify the company they want to partner with
    - Needs of the company
    - Future plans of company
    - Understand Roadmap of company
- There needs to be a business case for the investment
  - Economically Profitable
- Advantages for Private Sector
  - Advertising / Marketing of private entity products/services in African countries.
  - Information dissemination of products/services
  - Public Relations Incentives– Image Creation

Methods/Approaches to secure funding

- SATCOE's need to be extremely proficient at communicating capabilities to industry

- What do the SATCOE's specialize in????
  - Advanced material
    - Composite Manufacturing
    - Smart Materials
      - Piezio electric embedded structures
    - Nano technology
    - Antenna Design
    - Low Temperature resistant electronics
    - High Temperature resistant electronics
    - Others

Methods/Approaches to secure funding

- SATCOE's need to respond to request for information from industry promptly

- Determine what requirements need to be met to be on a company supplier data base

Other Methods/Approaches to work toward securing funding

- Partner with a university that has a standing relationship with a private sector entity
  - Large mainstream college and universities
    - University of Southern California
    - University of Maryland
    - Georgia Tech University
  - Historically Black Colleges and Universities (HBCU)
    - Morgan State University 433 885 3231 deloatch@eng.morgan.edu
      - Dean of Engineering Dr. Eugene Deloatch
    - Hampton University 757 728 6970 eric.sheppard@hampton.edu
      - Dean of Engineering Dr. Eric Sheppard
    - Florida Memorial University

Other Methods/Approaches to work toward securing funding

- Historically Black Colleges and Universities (HBCU)
  - Howard University 202 806 6565 ceacs@howard.edu
    - Dean of Engineering Dr. James H. Johnson
  - Jackson State University 601 979 4043 rwhalin@jsums.edu
    - Dean of Engineering Dr. Robert Whalin
  - Alabama A & M University 256 372 5560 ajbond@aamu.edu
    - Dean of Engineering Dr. Bond
  - North Carolina A & T
    - Dean of Engineering
  - Tuskegee University 334 727 8356 lburge@tuskegee.edu
    - Dean of Engineering Dr. LeGrand Burge
  - Florida A & M/Florida State
    - Dean of Engineering Dr. Ching-Jen Chen

Other Methods/Approaches to work toward securing funding

- Formulate other relationships with
  - Institutions and Organizations such as:
    - Career Communications
      - Black Engineer of the Year Awards
      - Women of Color Awards
    - National Society of Black Engineers (NSBE)
    - Black MBA Association
  - Develop and executive champion or a champion in industry to champion your cause and promote your SATCOE

Leverage Desires of Investors

- The economy is world/global economy
  - Utilize less expensive labor
  - Offset goals
    - Product purchased by a country
    - Petition the supplier country
      - for investment
      - Purchase of product from receiver country
      - Assembly or test of product in African country

Obstacles for African Countries

- The choice to address infrastructure needs vs. Hi-Tech technology development
- Accreditation, Credibility
  - Track record of past performance
- Export regulations
  - Export requirements
  - Export restrictions with respect to certain technologies
- The west making Africa a priority
- Self Reliance vs. dependence on donors or western government

Potential Forward Approach /Example of Technology Strategy

- Identify 1 or 2 Principle Technologies that for example:
  - The world currently needs or
  - A technology that if developed properly would result in a tremendous cost saving
- SATCOE's and Science and Technologies experts of Africa
  - Would determine what those 1 or 2 principle technologies are
  - Pool money together from each African country to develop 1 or 2 of the principle technologies

Potential Forward Approach/Example of Technology Strategy

- Energy needs are in the forefront of the world
- Is there a specific energy technology that Africa should focus on????
- Solar Energy could be one of the Principle technologies
  - Example University of Ghana Cape Coast developed a solar cell that could be developed
  - Discussions with anyone who has experience with solar energy

Thank you for your time and attention