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ANNOUNCEMENT- NEW DEADLINE FOR APPLICATIONS TO THE : The African Science to Business Challenge (ASBC)- 30 October 2009.

(CALL - RESEARCH ACTIVITIES WITH COMMERCIALIZATION POTENTIAL IN BIOMEDICAL AND WATER)

1. BACKGROUND

The African Science to Business Challenge is a pioneering initiative launched by the United Nations Economic Commission for Africa (ECA) and RTI International (RTI) aimed at strengthening links between scientific research and business development.

African scientists need to respond to major challenges facing the continent such as poverty, environmental degradation, food and energy security, health care, climate change, and wealth creation. Development of sustainable solutions to these complex issues requires the participation of African scientists as well as links to business. Therefore the need for building the capacity for indigenous scientific, technological and business expertise has become paramount if Africa is to develop sustainable solutions to its current development challenges.

This initiative recognizes the tremendous scientific efforts underway in all African countries through universities and research-based institutes despite the major obstacles regarding Science and Technology (S&T) development on the continent. Despite their efforts African scientists have limited international recognition and interest by the private sector in advancing their research findings. The absence of a culture of research commercialization in many African countries prevents research from being translated into productive use for national economies. This condition is further compounded by the fact that national systems are often not in place to promote new technological opportunities offered by researchers, often reflecting poor management structures and lack of basic infrastructure.

Furthermore, S&T capacities within countries are weak in terms of human and financial resources and often suffer from poor programming and poor working conditions for researchers, with poor pay conditions, resulting in a serious brain drain problem within the sector to other non-science sectors and abroad to developed countries. Consequently, scientific output has not increased.

2. CHALLENGES TO AFRICAN SCIENTIFIC OUTPUTS

Africa is home to more than 15 percent of the world's population, yet it produces less than 1.5 percent of the world's scientific knowledge - as measured by articles published in peer-reviewed international journals. The irony in Africa is this: to help the continent's most marginalized communities requires investments in the continent's most successful citizens. The challenge necessitates a balanced strategy that addresses immediate

social and economic needs while building Africa's capacities in STI. Despite the challenges ahead, Africa will not succeed over the long-term unless it finds a way to do both. The continent produces even fewer of the world's patents, a measure of innovation that is virtually absent of African participation (see table below).

Patents for inventions by US Patent Office

Country	US Patents (avg 2003-07)	Percent of world total
South Africa	98.0	0.06063
Egypt	6.6	0.00408
Kenya	4.8	0.00297
Morocco	1.4	0.00087
Zimbabwe	1.0	0.00062
Nigeria	1.0	0.00062
Tunisia	0.8	0.00049
Seychelles	0.4	0.00025
Algeria	0.4	0.00025
Gabon	0.2	0.00012
Benin	0.2	0.00012
Côte d'Ivoire	0.2	0.00012
Ghana	0.2	0.00012
Ethiopia	0.2	0.00012
Tanzania	0.2	0.00012
Cameroon	0.2	0.00012
Total (16 countries)	115.8	0.07164

Some of the factors for low scientific output can be associated with the weak links that exists between industry and universities. Furthermore, the African private sector does not have a culture of investing in R&D nor in placing contracts with public sector research institutions or universities.

As a result technology generally comes from abroad in packaged forms excluding

even the possibility of adaptive R&D. To some extent local branches of multinational companies place contracts with research institutions and universities but these are tiny drops in the scientific ocean in relation to total R&D budgets and are often one-off investments with limited repeat possibilities.

Research that provides commercial avenues hardly exists and furthermore, a lack of relevant skills training for African researchers is often cited as a barrier to research commercialization. These aspects of building scientific capacity into viable marketable products were discussed and recommendations made by African scientists during the ECA and AU-led Science with Africa Conference held from 3-7 March 2008 in Addis Ababa, Ethiopia.

Consequently, ECA and RTI believe that a series of measures are possible to create a dynamic innovation system including support for the creation and development of innovative, small and medium sized firms, through strategies that would include use of incubators and technology parks, use of public procurement for innovation, and stimulation of the emergence of a venture capital sector.

3.AIMS AND OBJECTIVES OF THE AFRICAN SCIENCE TO BUSINESS CHALLENGE

The major aim of the African Science to Business Challenge is to generate productive impact of research through translation into sustainable products, processes and services. In so doing, this initiative also aims to provide awareness amongst African researchers as a means of equipping them with the skills, knowledge and experience necessary to bring research-based ideas, inventions and innovations to market.

Specific aims are:

1. Provide African scientists and researchers with an understanding of commercialization know-how, as well as the technical aspects (such as financial management, intellectual property, project management and market research);
2. Build strong, ongoing connections between researchers and research institutions with industry and investors who can help to bring ideas, inventions and innovations to market, or otherwise into economically productive use;
3. Bring research and outputs to the market, or into productive usage, in a timely and effective manner to yield tangible benefits from that research and ensure that it contributes to the economy and the broader community.

4.2009 CATEGORIES

The following fields will be considered for this inaugural challenge:

Biomedical Engineering, which integrates physical, chemical, mathematical, and computational sciences and engineering principles for the study of biology, medicine, behavior and health. It advances fundamental concepts, creates knowledge from the molecular to the organ systems levels, and develops innovative biology, materials, processes, implants, devices, and informatics approaches for the prevention, diagnosis, and treatment of disease, for patient rehabilitation, and for improving health. Therefore, this category focuses on the development of new devices, algorithms, processes and systems that advance biology and medicine and improve medical practice and health care delivery. For example a marketable system or device that improves health communication or a system for electronic health records.

Water Quality is central to the human rights and personal dignity of every human being.

Yet there are currently over one billion people in the world lacking safe water and over two billion without adequate sanitation. Nearly 80% of those without safe water are concentrated in just three regions - East and South Asia and Sub Saharan Africa and coverage rates in Sub Saharan Africa are the lowest with just 56% of people with access to safe water. Dirty water is often the cause of ordinary childhood diarrhoea, a leading killer of African children and lack of clean water and sanitation leads to a wide range of potential diseases. These include cholera, typhoid, malaria, yellow fever, filariasis, river blindness, sleeping sickness, guinea worm, bilharzia, trachoma, scabies and more. Consequently, this category will focus on marketable and innovative approaches to the use of biotechnology and development in nanotechnology for water purification, wastewater treatment and desalinization by African scientists with a focus on adaptation and appropriate applications of new technologies for delivering safe water for Africa, particularly in rural areas.

5. ELIGIBILITY

The eligibility criteria are that submissions must be from African researchers and research institutions:

- 1) An individual researcher sponsored by his/her organization or government, and/or
- 2) A reputable research institution or university

Applications are especially encouraged from female researchers.

5.CONDITIONS FOR ENTRY

ECA and RTI have the right to reproduce and transmit in any media, for non-commercial purposes, the work that has been selected for the challenge.

ECA and RTI have the right to cancel the Awards at any time, when the selected entities and organizations are found ineligible or do not fulfill the criteria laid down for the award.

Click here to submit your entry online.

Else send the following details by email to: asbc@uneca.org The name and country of the institution and individual undertaking research; Title and abstract of the research; Full description of the research programme; 1-2 pages outline of why and how the research has commercialization potential; All entries in a language other than French and English must have translation and/or transcription included in the submission.

Submissions should not disclose Confidential Information.

A FULLY COMPLETED FORM WITH A FULL DESCRIPTION OF THE RESEARCH MUST ACCOMPANY EACH SUBMISSION - OTHERWISE THE ENTRY WILL BE DISQUALIFIED.

Closing date for the first 2009 the African Science to Business Challenge is extended to 30th September 2009

Submission addressed to:

ASBC Team

ICTs, Science and Technology Division (ISTD)

ECONOMIC COMMISSION FOR AFRICA

5th Floor, ECA Building, ECA, PO Box 3001, Menelik II Avenue

Addis Ababa, Ethiopia

Email: asbc@uneca.org

Website: <http://www.uneca.org/sciencewithafrica/asbc.html>

7. THE SELECTION PROCESS

ECA and RTI will form a pre-selection Committee to examine the submitted proposals subject to their formal compliance with the objectives and criteria of the Challenge scheme (e.g. completeness of information, subject matter, etc.) and select the proposals to be sent to the International Jury.

8. JUDGING

A Panel of Judges composed of prominent African and US scientists will preside over the review process to select the winner. Judging will be based on the entries screened initially by ECA and RTI, and the winner will be in the opinion of the Judges, a significant research with potential for marketability and commercialization.

9. WINNER OF THE AFRICAN SCIENCE TO BUSINESS CHALLENGE

The winner of the African Science to Business Challenge will be sponsored by RTI to travel to its headquarters, situated in Research Triangle Park, North Carolina, USA to learn about developing the award-winning project into a viable business.

10. THE CHALLENGE PARTNERS

RTI International - www.rti.org

Established in 1958 through a collaboration between leaders in state government, higher education, and business, the Research Triangle Institute (today known as RTI International) is the founding tenant of Research Triangle Park, North Carolina. The Triangle is defined by outstanding universities in the Triangle's three cities: North Carolina State University in Raleigh, Duke University in Durham, the University of North Carolina at Chapel Hill, and North Carolina Central University in Durham.

Today RTI International is one of the world's leading research institutes, dedicated to improving the human condition by turning knowledge into practice. An independent, nonprofit research organization, RTI has more than 3,800 professionals providing research and technical services to governments and businesses in more than 40 countries in the areas of health and pharmaceuticals, education and training, surveys and statistics, advanced technology, international development, economic and social policy, energy, and the environment. RTI's activities both mirror and support national priorities and policies as well as diverse commercial, industrial, and academic endeavors. For instance, as public and government interest in environmental protection grew in the 1960s, so did related programs at RTI, building on its expertise in statistical, physical, and life sciences. More recently, RTI has expanded its contributions in global health, working with industry to bring promising new products to market.

United Nations Economic Commission for Africa (UNECA) www.uneca.org

Established in 1958, ECA is the first pan-African regional institution with the mandate of facilitating socio-economic development and promoting regional integration on the continent. Although it is a United Nations agency, its formation, basis, orientation, focus, and mandate are purely pan-African in nature. ECA's niche in catalyzing Africa's development is in the areas of research and knowledge production; policy articulation, analysis and development; programme development, implementation and execution and by extension, technical assistance and advisory services to the regional political institutions of the African Union and the RECs, and member-states.

In its fifty years of existence, ECA has made remarkable interventions and contributions to the African development project in several respects. ECA has assisted in establishing key regional institutions-financial, training, policy and research. ECA identified the need for a development financing mechanism that will support infrastructure, trade and private investment in Africa and thus advocated for the establishment of the AfDB. Similarly, the formation of the regional economic communities was the by-product of ECA's applied research and policy generation, which anchor Africa's intra-regional trade and regional integration using a decentralized sub-regional approach. Further ECA facilitated the creation of other specialized institutions in the area of cartography, mapping and remote sensing, engineering and industrial technology, economic and social development finance and trade, minerals and transport.

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