Opening Speech During of the CPRafrica2011 Conference: Building ICT Research Capacity for Africa Held in Nairobi on April 17-19, 2011 in Fairview Hotel, Nairobi, Kenya.

Dr. Alison Gillwald, Executive Director/Research ICT Africa;

Messrs Simon Carter and Khaled Fourati of IDRC, the Sponsors;

Prof. Timothy Waema, School of Computing & Informatics, University of Nairobi, Head of Research ICT Africa in Kenya and the Host

Ladies and gentlemen,

Africa Universities are still emerging from the challenges they faced in the 1970s and 1980s. The *American Chronicle of Higher Education* recently stated that, "African universities' capacity to educate new PhD holders in eroding, raising deep concerns about the continent's ability to produce new generations of academics and educators."[1] Between 2000 through 2004, Africa produced only 1.8% of the world's publications. In comparison India produced 2.4% and Latin America 3.5% of the world's research.[2] Moreover it has been suggested that much of the African research is concentrated in only two African countries, i.e. South Africa and Egypt which between them account for just about 50% of the continent's publications. The top 8 countries in Africa produce above 80% of the continent's research.[3] Africa's inventive profile also shows that the continent needs to catch up; for it produces less than one

thousand of the world's inventions, of which 88% is located in South Africa.[4]

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1. The Chronical of Higher Education: 25.11.08
2. Pouris & Pouris, The State of Science and Technology in Africa (2000-2004), Scientometrics 79, 2009
3. Ibid.
4. Ibid

Ladies and gentlemen,

I do not need to underscore that fact that research and development is critical for accelerating economic development in all the newly industrializing countries. It is even more critical in the African environment where currently the culture of research is minimal. Reasearch has been singled out as the missing link in Africa's development. African Governments need to allocate more resources for scientific research, development of technical capabilities of the workforce and for raising the quality of teaching mathematics, science and technology in schools, polytechniques and universities. The most serious difficulties the Science and technology community is encountering in Africa include a steady decline in R &D investment, brain drain, obsolescence (our training curricula and science facilities lag far behind those in other parts of the world) and dilapidated infrastructure. Currently there are still many African countries that cannot sustain at least one good research university. Having at least one institution that carries out both basic and applied research in relevant areas of development, needs and problems would create a much needed engine for developing the knowledge base essential for a country's

economic growth and social development. Research universities are core components of any country's economic, political and social development systems. If knowledge for augmenting productive power is necessary, research is the fundamental process and its institutionalization will produce researchers and further research.

Ladies and gentlemen, let me now turn to the theme of this conference – ICT research capacity in Africa. I am sure the participants in this conference know better than I do that Africa's research capacity in ICTs is very limited is very limited. Some of the reasons for this challenge include:

- limited number of PhD holders who can competently supervise research and mentor young researchers. This is worsened by the brain drain to the Northern hemisphere;
- very few universities with postgraduate programmes in ICTs, especially PhD programmes in computer science, information technology and related areas;
- limited funding in form of scholarships and grants for ICT research;
- our governments paying little attention to research in general and ICT research in particular.

- migration of good quality staff and researchers to the private sector and administrative jobs in government, thereby draining human capital away from education and research;
- research agenda being dictated by the "North", who provide the bulk of the funding; and
- limited capacity to translate the little research that takes place into development outcomes for our people.

Ladies and gentlemen, I want to challenge you to start taking measures to address the above challenges. In my view the first step would be to address the limited capacity for effective use and maintenance of ICT infrastructure at the various levels including our educational institutions. This would enhance e-learning at all levels to increase access and quality of education. I believe that research in general and ICT research in particular is so critical for the development of our African countries that urgent action is required. Although the African countries committed to spending 1% of GDP on Science and Technology (AU Abuja Declaration), very few countries have actually implemented this commitment. Available figures suggest the overall government support for R&D in Africa is one of the lowest in the world (about 0.2% of GDP) many experts agree the investment needs to be above 1% of GDP to have any significant impact. S&T investments in most developed countries is closer to 3% of GDP. We require a visionary and

committed leadership that understands the role of research and ICTs in development.

I note that this conference was preceded by a workshop to train and mentor young researchers in ICTs. This is really commendable and I want to encourage Research ICT Africa (RIA) to continue with this annual young scholars training workshop and the annual CPRafrica conference. They will go along way in creating a strong research community and addressing some of the challenges facing Africa's ICT research as outlined earlier. It is my hope that this series of annual conferences will help to create a strong continental network of researchers that will begin to have a life of its own.

Finally, I wish you an engaging and successful conference.

I thank you and God bless you all.

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