Remarks by UNESCO Director and Representative to SADC

Innovation Africa Summit

Cape Town, South Africa, 5-7 October 2012

Director of Ceremony,

Excellencies,

Honourable Ministers,

Distinguished Vice-Chancellor of the University of the Western Cape

Distinguished Vice-Chancellors

Distinguished Representatives and Partners of the Private Sector

Professors, Researchers, Educationists

Ladies and Gentlemen,

All protocol observed,

It is a great honour for me to be here in Cape Town today and have the opportunity to address you all on behalf of UNESCO.

Let me first say thank you to the organisers and partners of this year's **Innovation Africa Summit** for recognizing the need to bring stakeholders from African governments, industry leaders and academia researchers to exchange ideas, thoughts and expertise on this very important gathering on Education, ICT, Science and Technology.

We are particularly grateful to Hewlett-Packard (HP) for its role in the UNESCO/HP *Brain Gain initiative.*

Thank you to the government of South Africa for your warm hospitality and for making *Innovation Africa* a priority. We are gathered in a country that has devoted considerable resources to expanding learning opportunities since education is the key to a brighter future.

It goes without saying that Education, Information and Communication Technologies, Science and Technology are, with Culture, favourite and priority sectors for UNESCO.

Advances in science and technology enabled through higher education have been largely responsible for economic growth and associated improvements in standards of quality of life in developed countries; innovation continues to play a critical role in maintaining national competitiveness in the global, knowledge-based economy.

Higher education institutions are one of the oldest entities contributing to scientific knowledge production, dissemination and utilization. As such, strategies should be devised and implemented to build strong institutions, capable of responding successfully to the many missions and expectations that each society, each development agenda places upon them.

These strategies include, but are not limited to, resources, good ICT infrastructures, as well as a critical mass of researchers. There is some cause for concern in countries or regions that are losing a significant proportion of their highly skilled personnel to more developed countries.

The contemporary impact of the international migration of highly-skilled people has been studied from various perspectives in the last fifty years, from brain drain (understood as a one-way flux of skilled people or "human capital" from resource-scarce developing countries to more developed countries) to brain circulation (temporary, circular or multi-directional movements) and brain gain.

As an indication of the scope of the trend, according to a joint UNECA-IOM study, at least 20,000 qualified people – skilled professionals, scientists, academics and researchers – leave Africa every year.

A growing proportion of scientific research is focusing on data and can be conducted from anywhere, enabling – or even calling for – distant cooperation.

Behind the scene, certain tools enable these developments. These technologies can help bridge the divide in higher education between developing countries and developed ones through pooling and remote access to rare or expensive resources including data, computers, and scientific instruments.

The availability, reliability and costs of critical utilities, such as power and communication networks are highly variable between regions, but there are strong socio-economic incentives for public as well as private investments in, and the development of, communication infrastructure and services in Africa and the Arab States.

It is upon this background that UNESCO has partnered with HP for the Brain Gain Initiative.

The three key concepts presented above are interrelated: many skilled expatriates, wherever they may be located, have the potential and the willingness to contribute to the development of their home country and technology provides a new way to enable distance cooperation.

UNESCO and HP acknowledged their shared interest in higher education and their synergies, and joined forces to develop several projects using innovative technology to create a "brain gain" for regions that were particularly impacted by the circulation of academics and scientists.

In 2009 the two partners agreed to scale up the initiative to help create a sustainable university e-infrastructure for Africa and the Arab States, bringing together higher education institutions and research centres and allowing them to pursue innovative higher education and research projects.

Knowledge production knows no borders; however, it requires spaces where people can meet, interact and learn how to do things together.

Digitally literate students, researchers and faculty can learn from and enter into collaboration with leading innovators, independently of their physical location, lessening a motive for migration.

More broadly, the development, deployment and regional integration of e-infrastructures for education in Africa and the Arab States may have a significant impact on capacity-building for development. The use of advanced distributed computing and communication technologies represents a significant trend shaping the future of higher education and research and accelerating progress towards building knowledge-based societies.

The Initiative's vision is therefore to help create the first African university e-infrastructure as a major tool to strengthen regional and global real-time scientific collaboration and research for development in Africa and the Arab States.

Fully achieving the vision is however beyond the timeline and budget of any single project. The initiative is to build on communication infrastructure that is now being deployed and will continue to be for years to come. The scale and purpose of these efforts call for decisions at the (inter)governmental level, typically against the education and research budgets. The initiative has therefore a role to play in introducing the technology to the users, in facilitating the production of preliminary results which can help to secure decision makers' support, and in building and gathering a community of practitioners.

The current partners to this initiative – UNESCO, HP and the higher education institutions themselves – are fully committed to ensuring that the BGI will deliver a durable, valuable asset – an infrastructure and a community of users. There are, however, several *sine qua non* conditions like adequate power supply and good Internet connectivity which require resources beyond the scope of the BGI.

Many higher education institutions are still facing a number of challenges such as: infrastructural weaknesses, lack of competent ICT staffs and low research activity. We are convinced Brain Gain Initiative as well as other partners could help to overcome the mismatch between skills and needs especially through training.

Recent developments and initiatives regarding in particular Internet connectivity comfort us in our belief that the time is now ripe for an African e-Infrastructure that would help provide African solutions to African problems for the overall development of the continent. Support from national policy-

makers and institutional leaders would significantly increase BGI's outreach and impact.

The UNESCO-HP Brain Gain Initiative is early, but is it too early?

- The vision might not yet be in everybody's mind, and the necessary infrastructure is far from complete, but training people takes time, creating a community takes time. We would be late if we were to launch the programme only after reliable, affordable bandwidth was available. Now is the right time to raise awareness among researchers and to familiarize academics, researchers, students and support staff with the resources.
- Furthermore, participating projects address topical issues, they explore how improved cooperation, tools and methods can further develop local research capacity.

In so doing, they assess and demonstrate how the deployment of an African e-infrastructure would better serve researchers' needs, and they make the case for further steps.

From UNESCO point of view, the initiative is relevant and successful in that it fosters innovation to meet Member States' needs in education and science. Also, it helps bridge the digital divide and contributes to the creation of an African higher education and research space.

From the researchers' point of view, the initiative is valuable:
- It complements participants' efforts in developing research activities, and tools for researchers. Institutions can better serve the needs of their doctoral students and academics.
- It fostered the development of research projects and in some cases, new curricula.

Please allow me to call on ICT industry leaders, governments and learning institutions here present; to foster on and be part of this all important initiative.

Ladies and Gentlemen, UNESCO is open to more partnerships and cooperation to a better future. Thank you.