



# Establishing Technology and Innovation Support Centers (TISCs) in Ugandan Universities

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# What is a University?

The root of the word “UNIVERSITY” is UNIVERSE

Universe could be LOCAL; it starts where we were born and live, for instance, Kampala, in Uganda; Universe could also be GLOBAL (globalization); it means our world (all the continents); it could also mean the solar system or even our galaxy and beyond

A University is a place where the «HEAD» of the «Social Body» studies and carries out research in order to produce solutions for the advancement of LOCAL as well as GLOBAL *universe*



# What is a University? (cont'd)

For this reason, a University numbers different faculties (Medicine, Science and Technology, Physics, Law, Economy, Literature, Mathematics, Computer Sciences, Languages, Anthropology, International Relations, etc.) to reach the above-mentioned goal

In general, a University is THE think-tank, THE Brain POWER, THE Laboratory or THE Library of a country (if you want to measure the level of a country in all areas, just look at its universities and how they function and what they produce)

As the Think-Tank, the Brain Power and the Library of a country, a University is THE most appropriate dwelling-place of all kinds of useful INFORMATION!

# The TISC Project

WIPO Development Agenda adopted in September 2007, please see Recommendation 8, the basis of the TISC Project

The objective is to *reduce the technical and scientific knowledge gap between Developing Countries and Least-Developed Countries and industrialized countries* (members of WIPO)

Therefore, WIPO establishes TISCs in its member states in order to reach the above-mentioned goal

# TISC Resources: A. 90 Million Technologies

- *Described in patent documents and generally classified as follows :*
  - **SECTION A — HUMAN NECESSITIES** (agriculture, foodstuffs, pharmaceuticals, cosmetics, tobacco, etc.)
  - **SECTION B — PERFORMING OPERATIONS; TRANSPORTING** (vehicles, boats, airplanes, roads, houses, machine tools, grinding, polishing, hand tools, hand cutting tools, etc.)
  - **SECTION C — CHEMISTRY; METALLURGY** (treatment of water, waste water, glass, mineral or slag wool, cements, concrete, artificial stone, ceramics, refractories, fertilizers, petroleum, gas, sugar industries, etc.)
  - **SECTION D — TEXTILES; PAPER** (natural or artificial threads, spinning, weaving, ropes, paper-making, treatment of textile, lace-making, knitting, sewing, etc.)
  - **SECTION E — FIXED CONSTRUCTIONS** (building, construction of roads, railways or bridges, hydraulic engineering, foundations, soil-shifting, water supply, locks, keys, window or door, etc.)
  - **SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING**
  - **SECTION G — PHYSICS**
  - **SECTION H — ELECTRICITY**

## B. 70 000 Scientific Publications

■ HINARI (WHO)



■ AGORA (FAO)



■ OARE (UNEP)



■ ARDI (WIPO)





# What is a TISC in a University?

- *A Digital Library:* A TISC in a University will manage an on-line collection of over 90 million technologies and 70 000 scientific publications (more than 15 000 papers and 22 000 e-books) and distribute them to different Faculties/students
- *A Technology Transfer Office:* A TISC in a University could bridge Faculties and, for instance, SMEs where patented inventions and innovations from university could be manufactured and commercialized; universities should work together with factories or companies that operate in the same fields and send students there for internship in order to gain practical knowledge of their lessons
- *A Training Center:* A TISC in a University will provide training on searching patent information (technologies) and scientific publications to professors and students

# -TISC as a Digital Library

Physical Library



Digital Library



# Why Establish TISCs in Universities?

Because a University is the dwelling-place of all kinds of USEFUL information, it is also the most appropriate dwelling-place of a TISC, since the objective of the TISC Project is to *reduce the technical and scientific knowledge gap between Developing Countries and Least-Developed Countries as well as industrialized countries members of WIPO* (see WIPO Development agenda, Rec. 8 which is the basis of the TISC Project)

Therefore, Universities should have priority access to the resources of the TISC Project in order to use them **EFFECTIVELY** for the benefit of the whole country

# Effective Use of TISC Resources By Universities

- Exploitation that has *achieved the desired goal*
- *Being «effective» means completing activities so that planned goals are attained*
- *Effectiveness is concerned with the ends (outcome) or attainment of goals (it is different from efficiency which instead is concerned with the means (output) of getting things done e.g. equipment, money, personnel, institutions put in place);*
- *Effectiveness means that through various work initiatives, PLANNED goals have been pursued and achieved (in the case of the TISC Project, the knowledge gap between LDCs and DCs and industrialized countries has been reduced)*
- *A University should have an IP Policy otherwise it will not achieve any goal but to transmit only theory*

# How Many TISCs in a University?

- According to its needs and means, a University can have:
  - One central TISC which gathers the three aspects (Digital Library, Technology Transfer Office, Training Center)
  - One TISC gathering the components Technology Transfer Office and Training Center for the entire University leaving the component Digital Library to *each Faculty*
  - One TISC gathering the components Digital Library and Training Center for the entire University and one TISC being the Technology Transfer Office for the entire University
  - One TISC gathering the Digital Library and the Training Center for the entire University without the component Technology Transfer Office

# TISC Networks

## ■ *National Network*

- Central Focal Point: Example > URSB (should nominate a responsible for the country and be ready to implement the TISC Project Planning)
- Peripheral Focal Points: Institutions coordinated by URSB (e.g. universities, SMEs; they will have to sign an institutional agreement with the focal point)

## ■ *Regional Network*

- Designated National Institutions of the region coordinated by WIPO

## ■ *WIPO Network*

- WIPO and other organizations in the world

# WIPO Support

- While a member state is requested to **ONLY** provide *staff and facilities*, WIPO's support will be the following:
  - Facilitating access to databases
  - Providing training of trainers and of local users
  - Supporting awareness-raising activities
  - Organizing sub-regional and regional conferences as experience-sharing platforms
  - Providing Distance Learning Courses (WIPO Academy)
  - Providing IP materials
  - Providing other resources (will be mentioned in a later presentation)

# Conclusion

- The TISC Project places universities in DCs and LDCs, particularly Ugandan Universities, on more equal footing (at least as regards access to technical and scientific information) with Universities in industrialized countries and emerging countries since DCs and LDCs *have gained free access to 90 million technologies in all fields, and to more than 70 000 scientific publications*
- Through the TISC Project, Universities in DCs and LDCs, in particular Uganda, *will not need to reinvent the wheel* in that they will **ONLY** use and adapt existing technical solutions **to solve local problems**
- *The main challenge for universities in DCs and LDCs is no longer to access INFORMATION but to transform INFORMATION into KNOWLEDGE and KNOWLEDGE into TANGIBLE solutions; therefore, the only way to get there is to work notably with SMEs and other companies!*



# Conclusion (cont'd)

- In an African University, I asked the following question: «Where do you transform information into knowledge and knowledge into concrete solutions?»
- The answer was: «NOWHERE» because we do not have means!
- My answer was: «NOWHERE» can be broken into two words: «NOW» and «HERE»! Therefore give yourselves means you are lacking NOW and you will fulfill your mission HERE (where you are living) for the benefit of your country, your continent and the world!

Thank you for your attention!

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