

FROM IDEA TO MARKET: THE CASE OF A BANANA VALUE CHAIN INCUBATOR

To be Presented at WIPO Meeting on Developing the TISC Project-4th June 2015,at Tumba College of Technology,Rwanda

Prof.5.W.Byarugaba-Bazirake(PhD)

WIPO Consultant on TISC

Patent Holder/Dean Faculty of Science, Kyambogo University

African Role Model in Modernizing African Food Systems-

awarded by IFAD,SU,UP,MSU & MUK.(2013)



IMPORTANCE OF IP IN INNOVATION PROMOTION & ITS EXPLOITATION: ROLE OF PUBLIC POLICY

- **Content**
- Introduction
 - IP Value
 - Innovations
 - IP promotion
 - IP exploitation
 - IP public policy



“FROM COTTAGE TO INDUSTRY”

- An idea came to mind to solve a huge societal challenge/problem. The main challenge was to ease transportation of bulky green bananas by 40% (peels and stocks) and deliver 60% to final end user(consumer), save fuel of trucks, reduce urban garbage accumulation and avail ready to cook product to households without using common child labour(house girls) for peeling. Technical and scientific approach of machine peeling and inactivating spoilage enzymes had to be sought. It made a success by acquiring a Patent and US FDA certification.



INTELLECTUAL PROPERTY OVERVIEW

- Introduction
- Patents
- Industrial Designs
- Trademarks
- Copyrights
- Trade secrets



INTRODUCTION

- Intellectual Property
 - Rights for intangible creations of the mind
 - Corporate assets
 - Recognized by national laws and international treaties
 - Comprises industrial property and copyright



INTRODUCTION

- Industrial Property
 - Intangible assets created for advancing technology, industry and trade
 - Protection for inventions, industrial designs, trademarks, geographical indications, plant varieties, mask works for integrated circuits, etc.
 - Suppression of unfair competition, including protection of trade secrets



PATENTS

○ Patents

- Intellectual property rights to owner of invention
 - No rights in the absence of a filed application
- Patent term generally 20 years from date of application filing
 - No enforceable rights until patent grants
- Confers certain rights during term of patent
 - Excludes others from exploiting invention within a specified territory



PATENTS

- Requirements for patenting:
 - Inventor/owner must apply
 - Granted to anyone who invents or discovers any new and useful
 - process, machine, article of manufacture
 - compositions of matter
 - improvements thereof
 - Patentable inventions must at least be novel & non-obvious (inventive step)
 - Some jurisdictions have additional requirements



COPYRIGHTS

○ Copyrights

- Protection provided to the creators of “original works of authorship”
 - Literary, dramatic, photographic, musical, artistic, and other works, both published and unpublished
- Protects expression of ideas rather than idea itself
- Right arises automatically at creation



INDUSTRIAL DESIGNS

- Protection for ornamental features associated with articles used in commerce
- Limited uniformity world-wide in requirements and scope of protection available
 - Design patents in some countries
- Protection of industrial design and patent protection not mutually exclusive in some countries



TRADEMARKS

- Type of Intellectual Property in the form of a word, name, symbol, or device used to mark goods
 - Indicates the origin of the goods
 - Provides public assurance
 - Distinguishes the goods from those of others



Mercedes-Benz

- Known as “service marks” when used in conjunction with a service



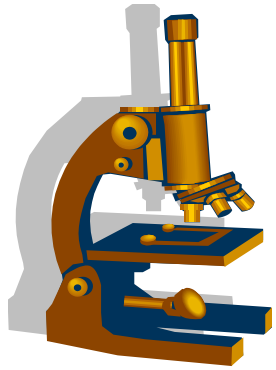
TRADE SECRETS

○ Trade Secrets

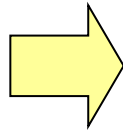
- Any information with independent economic value not in public domain
- Any information belonging to an entity that is neither readily known nor readily ascertainable outside the entity
- NB: MY TRADE SECRET ENABLES ME EARN
- ROYALTIES(%) REALIZED ON TOTAL SALES.



From Laboratory to Market - Innovations



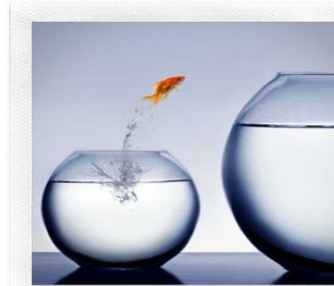
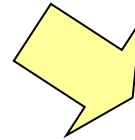
R&D



Patent application



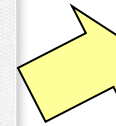
Licensing



Start-up/ Spin-off



Commercialization



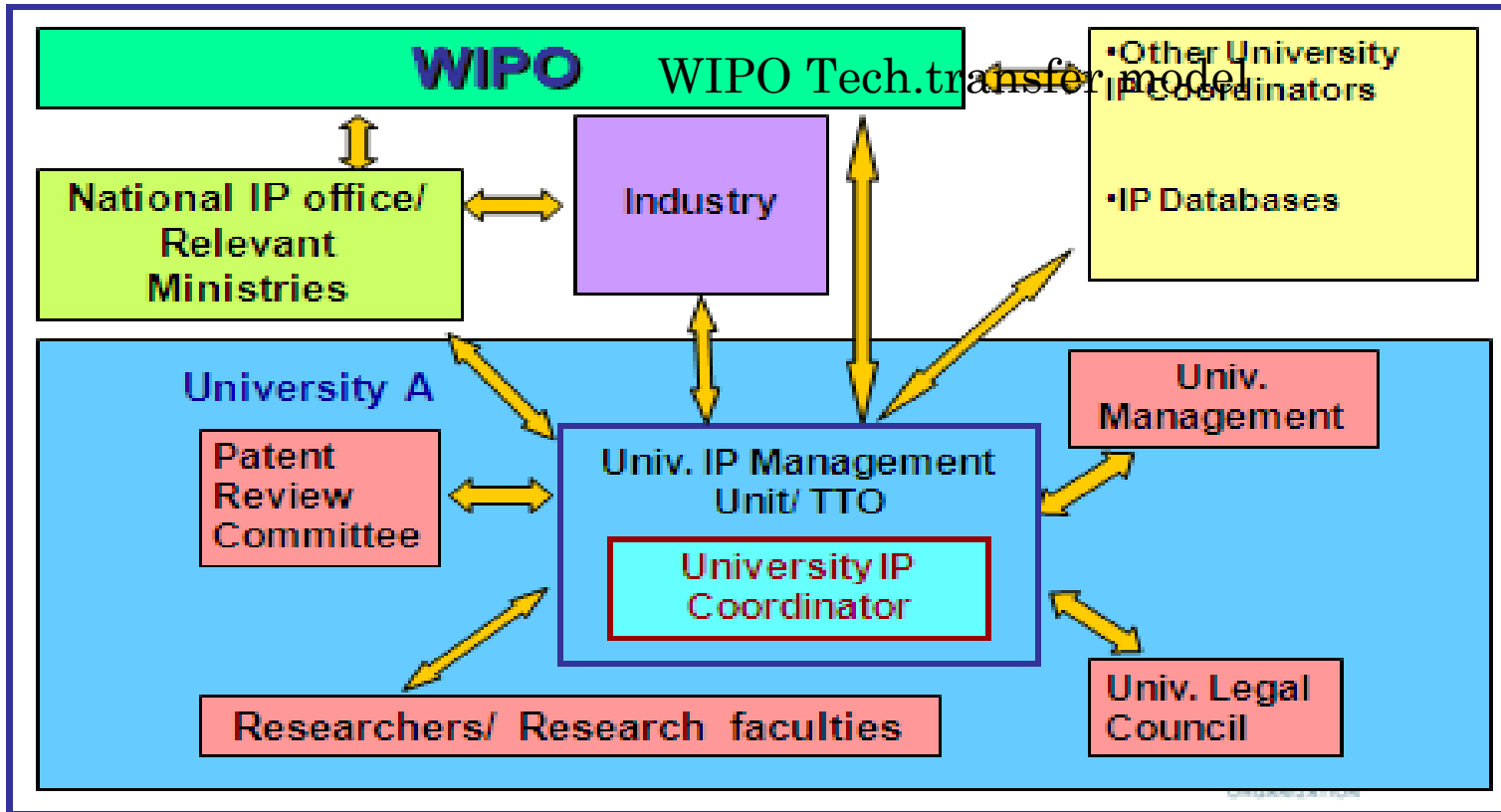
Technology Transfer

CREATION

PROTECTION

EXPLOITATION

WIPO University Initiative Infrastructure



APPLYING WIPO UNIVERSITY INITIATIVE

- KYU works with UIRI, UNCST, NARO, MUST
 - University IP & Tech Transfer Coordination
 - University Legal Office engagement-MOU
 - Industry-Private Sector Partnership
 - IP Policy in development
 - P-P-Partnership in licensing patented technology
 - Liaison with National IP Office-URSB
 - University involvement in IP management
 - Further research facilities-creation of Incubator/Innovation Centre and Science/Industrial Park





PLANTATION THAT LACKS MULCHES



GROWING MATOOKE





**GOOD HARVEST FROM MULCHED (STALKS & PEELS)
PLANTATION**



BULK TRANSPORTATION OF MATOOKE

(40% Waste of peels and stalks)



READY TO TRANSPORT BANANA FINGERS

DMC TRANSPORTING PICK-UP











Afri Banana Products Ltd (ABP)


2014

CERTIFICATE OF REGISTRATION

This certifies that
Afri-Banana Products (ABP) Ltd.
Uganda Industrial Research Institute
Kampala, 256
Uganda

is registered with the U.S. Food and Drug Administration pursuant to the Federal Food Drug and Cosmetic Act, as amended by the Bioterrorism Act of 2002 and the FDA Food Safety Modernization Act, such registration having been verified as currently effective on the date hereof by Registrar Corp.

U.S. FDA Registration No.: 18635513406
U.S. Agent for FDA Registrar Corp
Communications: 144 Research Drive, Hampton, Virginia, 23666, USA
Telephone + 1-757-224-0177. Fax: + 1-757-224-0179

This certificate affirms that the above stated facility is registered with the U.S. Food and Drug Administration pursuant to the Federal Food Drug and Cosmetic Act, as amended by the Bioterrorism Act of 2002 and the FDA Food Safety Modernization Act, such registration having been verified as effective by Registrar Corp as of the date hereof and Registrar Corp will confirm that such registration remains effective upon request and presentation of this certificate until December 31, 2014, unless such registration has been terminated after issuance of this certificate. Registrar Corp makes no other representations or warranties, nor does this certificate make any representation or warranties to any person or entity other than the named certificate holder, for whose benefit it is issued. Registrar Corp assumes no liability to any person or entity in connection with the foregoing. The U.S. Food and Drug Administration does not issue a certificate of registration, nor does the U.S. Food and Drug Administration recognize a certificate of registration. Registrar Corp is not affiliated with the U.S. Food and Drug Administration.

Registrar Corp *
144 Research Drive, Hampton, Virginia, 23666 USA
Telephone: +1-757-224-0177 Fax: +1-757-224-0179
info@registrarcorp.com . www.registrarcorp.com


Russ K. Statman
Executive Director
Registrar Corp
Date: December 14, 2013
© Copyright 2002-2013 Registrar Corp





THE PATENTS STATUTE, 1991

Certificate of Grant of Patent

In accordance with section 22 (1) of the Patents Statute, 1991, it is hereby certified

having the No. UP./P./07./00001..... has been granted to:

Name:
GEORGE WILLIAM BYARUGABA - BAZIRAKE

Address:
KYAMBOGO UNIVERSITY P.O.BOX 7181 KAMPALA

On the 23rd day of October 2009 one thousand n

Restaurant Depot

WHERE RESTAURANTS SHOP

Landmark



**GLOBAL FOODS
WAREHOUSE**

4928B

**DISTRIBUTORS:
AFRICAN, CARRIBEAN,
LATINO & ASIAN FOODS**

RETAIN

\$

**WE SELL
FOR LES**



**GLOBAL FOODS
WAREHOUSE**



OPEN HOURS

MON	10:00am - 7:00pm
TUE	10:00am - 7:00pm
WED	10:00am - 7:00pm
THUR	10:00am - 7:00pm
FRI	10:00am - 7:00pm

OPEN





BENEFITS FROM INNOVATIONS-IPASSET

1. FREVASEMA-Over 70 MT exported to USA bringing revenue UGX 1 billion to farmers, etc
2. Biodegradable bags-to replace polythene bags
3. Banana Juice and wine(Refer other paper)
4. Biogas-to reduce on charcoal(deforestation) use
5. Banana textiles and ornamentals-beads, etc
6. Charcoal briquettes,
7. Vinegar from banana waste
8. Enriched animal feeds formulated
9. Edible insects(nsenene) cookies with banana flour
10. TC banana disease-free seedlings against BWD,







PRODUCTION OF FRESH VACUUM SEALED MATOKE AND OPTIMAL UTILIZATION OF BANANA WASTE

1.0 Introduction:

One particular fruit which has become the most important crop world wide is the banana. Uganda ranks second to India in world banana production with 1.5 million tons for India and 1.2 million tons for Uganda. The Uganda banana production ranges between 220-460kg per year according to ITA (2006) yet she ranks the 70th country in terms of total banana production in the world producer (FAO, 2006). The banana is a major food crop in the African highlands (AAA-EA genotype) locally known as matooke. It is a major food for over 50 million people in Uganda and provides major food for over 100 million people in the urban population (Rubahayo, 1991). Bananas and matooke contribute about 35% of total food consumption in Uganda. Matooke is usually transported in bulk to the market and banana waste account for approximately 40% of the total weight. Matooke bulk transported 400km to the market, the waste (manure, livestock feed) is usually not utilized to add value.

FRESH PRODUCE OF UGANDA



VACUUM SEALED MATOKE



Afri Banana Products Ltd (ABP)



DR. G.W Bazirake explaining ABP Products to the President of Uganda



Afri Banana Products Ltd (ABP)



ABP wins a trophy at UMA Trade Fair



GAS FROM PEELS BURNING















Apri Bon
SWEET
Wine

Apri Bon
SWEET
Wine

Apri Bon
SWEET
Wine

Apri Bon
SWEET
Wine









TC BANANA SEEDLINGS HARDENING



TECHNOLOGY TRANSFER & PROTOTYPES



BUNGOOMA SHARING IN KENYA



UGANDA INVENTORS & INNOVATORS ASSOCIATION (UIIA)

- Address



Uganda Inventors and Innovators Association
Plot 67- Ground Floor, Postel **Building**, Clement Hill Road
P.O.Box 37368, Kampala- Uganda: Tel: 0414341340

THANK YOU FOR YOUR ATTENTION

