MINISTERE DE L'ENSEIGNEMENT SUPERIEUR, DE LA RECHERCHE ET DE L'INNOVATION

SECRETARIAT GENERAL

UNIVERSITE NAZI BONI
01BP. 1091 Bobo-Dioulasso 01
Tél. (226) 20 98 06 35 / Fax (226) 20 98 25 77

Centre d'Excellence Africain en Innovations Biotechnologiques pour l'Elimination des Maladies à Transmission Vectorielle
(CEA/ITECH-MTV)

BURKINA FASO

Unité- Progrès -Justice

TERMES DE REFERENCE

RENFORCER LES CAPACITES DE TROIS (03) PERSONNES AU BUREAU DE TRANSFERT DE TECHNOLOGIE (BTT) A TRAVERS UNE FORMATION AU GHANA
(ILD 5.3 : ESPRIT D'ENTREPREUNARIAT DU CEA / ITECH-MTV)

(22 au 28 Janvier 2023)

Janvier 2023

1) CONTEXTE ET JUSTIFICATION

Le Centre d'Excellence Africain en Innovations Biotechnologiques pour l'Elimination des Maladies à Transmission Vectorielle (CEA/ITECH-MTV), CEA Impact est un projet de financement basé sur les résultats, dans lequel les centres doivent atteindre des indicateurs liés au décaissement (ILD) pour "gagner" de l'argent à partir d'une enveloppe de financement disponible (~ 8 millions USD sur cinq ans). L'ILD 5 est axé sur la pertinence des activités d'éducation et de recherche du centre, et en particulier sur la manière dont les activités du centre s'alignent sur le secteur auquel le centre est associé et le soutiennent.

La recherche académique ne doit pas rester isolée dans l'environnement universitaire, mais doit être transférée plus largement aux parties prenantes sectorielles qui peuvent profiter des résultats des activités de recherche et les mettre en œuvre. Ce transfert de connaissances - à travers les personnes, les produits et les idées - est une mesure importante de la pertinence d'un centre CEA Impact. **Le RLD 5.3 offre aux Centres CEA Impact l'opportunité de concevoir un jalon autour de l'entreprenariat, de l'innovation, des start-ups et/ou des activités de commercialisation**. C'est ainsi que nous effectuerons un voyage de formation dans l'optique de mettre au sein de l'Université Nazi BONI un bureau de transfert de technologie dans le cadre des atteintes des objectifs de l'ILD 5.3.

2) OBJECTIFS

L'objectif est d'acquérir des compétences afin de créer un bureau de transfert de technologie (BTT) au sein de l'Université Nazi BONI au profit du CEA/ITECH-MTV dans le cadre des atteintes des objectifs de l'ILD 5.3.

3) RESULTATS ATTENDUS ET LIVRABLES

A la fin de cette formation, les participants devront fournir un rapport de mission et un projet de fonctionnement du bureau de transfert de technologie au CEA/ITECH-MTV.

4) LIEU ET DUREE

La formation se tiendra à Accra au Ghana (University of Ghana), du 22 au 28 Janvier 2023.

5) CHRONOGRAMME

Jours	Heures	Activité	Responsable
Jour 1 : 22 janvier 2023		Arrivé au Ghana et installation	Participants
Jour 2 : 23 janvier 2023	Matin 8h-11h	➢ Identification des projets innovants à valeur ajoutée et positionnement par rapport à la concurrence et aux besoins du marché ; ➢ Protection des résultats de recherche par le dépôt et l'entretien de titres de propriété intellectuelle et industrielle	Formateurs
	Soir 14h-17h	➢ Mise en place et gestion des projets de maturations validés	Formateurs
Jour 3 : 24 janvier 2023	Matin 8h-11h	➢ Commercialisation jusqu'au transfert au monde économique sous forme de licensing et de création de start-up ; ➢ Détection d'innovations à potentiel de valorisation et identification des besoins des marchés	Formateurs
	Soir 14h-17h	➢ Gestion, dans le cadre de prestation de services, des portefeuilles de droits de propriété intellectuelle	Formateurs
Jour 4 : 25 janvier 2023	Matin 8h-11h	➢ Activités d'appui à la négociation de contrats relatifs à des projets de recherche avec les entreprises ; ➢ Actions de sensibilisation des personnels et étudiants à l'innovation, au transfert et à la propriété intellectuelle	Formateurs
	Soir 14h-17h	➢ Promotion et cartographie de l'offre de recherche et détection de partenaires	Formateurs
Jour 5 : 26 janvier 2023	Matin 8h-11h	➢ Actions de veille, d'études et de cartographie des thématiques de recherche, des marchés (besoins, acteurs, réglementations…), de la propriété intellectuelle	Formateurs
Jour 6 : 27 janvier 2023	Matin 8h-11h	➢ Gestion des contrats de recherche partenariale, financement et accompagnement de l'incubation d'entreprises innovantes	Formateurs
	Soir 13h-17h	➢ Visite d'un Centre de transfert de technologie et d'un incubateur ➢ Bilan de la formation	Participants
Jour 7 : 28 janvier 2023		Départ d'Accra, retour à Bobo-Dioulasso	Participants
Jour 8 : 29 janvier 2023		Départ de Ouagadougou, retour à Bobo-Dioulasso	Participants

6) PARTICIPANTS

L'activité sera constituée des personnes ci-après :

1. Dr Moussa OUEDRAOGO, Coordonnateur Adjoint chargé des stages professionnels et des Startups, CEA/ITECH-MTV ;

2. M. Silvain OUEDRAOGO, Responsable Suivi & Evaluation, CEA/ITECH-MTV ;

3. Dr Halidou Bamogo, Personne Ressource du BTT et de l'Incubateur, UNB ;

TRAINING AGREEMENT

BETWEEN

UNIVERSITY OF GHANA

AND

NAZI BONI UNIVERSITY

This Training Agreement (hereinafter referred to as "Agreement") is made this 20th day of January 2023

BETWEEN

University of Ghana, a Public Higher Education Institution established by an Act of Parliament, University of Ghana Act, 2010 (Act 806) whose administrative offices are at Legon Boundary Road, P. O. Box LG 25, Legon, Accra, Ghana, represented by its Pro Vice-Chancellor for Research, Innovation and Development (hereinafter referred to as **"UG"**) which expression shall, where the context so admits or requires, include its successors in title and assigns of the one part;

AND

Nazi BONI University (hereinafter referred to as Nazi BONI, a public university located in Bobo-Dioulasso, Houet Province, Burkina Faso, which expression shall, where the context so admits or requires, include its successors in title and assigns of the one part.

Each a "Party" and collectively "the Parties" to this Agreement.

WHEREAS

Nazi Boni has requested UG's Office of Research, Innovation and Development (ORID) to provide training on the **"Establishment and operationalisation of a technology transfer office at the Nazi Boni University"** (the Purpose).

ORID has the capacity and has accepted and expressed its willingness to provide the above-mentioned training.

The Parties have decided to enter into this Agreement for the Purpose and wish to set the terms and conditions for the collaboration.

WHEREFORE THE PARTIES AGREE AS FOLLOWS:

1.0   OBLIGATIONS OF NAZI BONI
  i.   Provide information to UG on existing framework for the management of technology transfer at Nazi Boni University.
  ii.   Provide information needed for a training needs assessment.
  iii. Provide funding to UG to roll out the training.
  iv.   Make the necessary arrangement for its staff to travel for the training at UG.

2.0   OBLIGATIONS OF UG
  i.   Undertake a scoping assessment of existing framework for technology transfer at Nazi Boni.
  ii.   Conduct a training needs assessment.
  iii. Develop a training programme based on the needs assessment for consideration by Nazi Boni.
  iv.   Identify and provide subject matter experts to serve as Resource Persons.
  v.   Conduct the training based on a schedule agreed upon with Nazi Boni.
  vi.   Facilitate visits of the Nazi Boni team to another technology transfer office and an innovation hub in Accra, Ghana.

3.0   PERIOD OF PERFORMANCE

The period of performance for this Agreement shall be from **January 23, 2023** (the "Effective Date") to **January 27, 2023** (the "Completion Date"). The Completion Date may be modified or extended only by mutual written agreement of the Parties.

4.0   INVOICING

UG shall submit an invoice to Nazi Boni at the following address.

Centre d'Excellence Africain en Innovations
Biotechnologiques pour l'Elimination des Maladies à
Transmission Vectorielle (CEA/ITECH-MTV)
Université Nazi BONI, BURKINA FASO

5.0 FUNDING

Nazi Boni shall make payment to UG within seven (7) days of receipt of the said invoice. Nazi Boni shall transfer to UG a total of **USD 4,450** in advance as per the budget attached as Annex 2.

Funds will be remitted by bank transfer to UG's bank details below:

Name of Account Holder: University of Ghana External Fund Dollar Account
Account number: 8700226526400
Name of Bank: Standard Chartered Bank
Address of Bank: P.O. Box LG 16, Legon, Accra, Ghana
Swift Code: SCBLGHAC
Sort/Branch Code: 020108
City, Country   Accra, Ghana

Remittance Information for UG must be addressed to:
The Senior Accountant
Office of Research, Innovation and Development
P. O. Box LG 1142
University of Ghana, Legon
Tel: +233 303930436
Email: ahhofe@ug.edu.gh/orid-finance@ug.edu.gh

For ease of reference and tracking, proof of payment should be submitted by email to orid-finance@ug.edu.gh with a copy to orid-cad@ug.edu.gh.

6.0   INTELLECTUAL PROPERTY

6.1   Any intellectual property (including but not limited to patents, copyrights, design rights, confidential information, datasets, trademarks, know-how, tangible research property) owned by a Party prior to effecting this Agreement (hereinafter "Background Intellectual Property") and used in connection with this Agreement shall remain the property of the Party introducing the same.

6.2   Each Party grants to the other a royalty-free, non-exclusive license to use its Background Intellectual Property for the sole purpose of executing this Agreement. No Party may grant any sub-license over or in respect of the other Party's Background Intellectual Property.

6.3   Copyrights in the training materials shall remain with UG.

6.4   UG hereby grants to Nazi Boni, a royalty free, non-exclusive, non-transferrable license to use the training materials for non-commercial purpose and to share the materials with the staff of the technology transfer office at Nazi Boni only.

7.0 CONFIDENTIALITY

Each Party will keep confidential the other Party's confidential information which shall mean all secret or not generally known information or information which is not easily accessible to others or of a commercially sensitive nature disclosed or made available in any way by one Party ("Discloser") to the other ("Recipient") for use in connection with this Agreement (including the Background IP and Foreground IP of the Discloser) and marked or labelled by the Discloser as "Proprietary", "Confidential" or "Sensitive" at the time of disclosure ("Confidential Information"). This obligation shall not apply to such information as the Recipient can show to the reasonable satisfaction of the Discloser: (a) has become public knowledge other than through any fault of the Recipient; (b) was already known to the Recipient prior to disclosure by the Discloser; (c) was independently developed by the Recipient without recourse to or use of any Confidential Information; (d) has been received by Recipient from a third party who did not acquire it in confidence from the Discloser, or someone owing a duty of confidence to the Discloser; or (e) the Recipient is required to disclose by law or by a requirement of a regulatory body.

8.0 REPORTING

UG shall submit a report of the training to Nazi Boni University within a month of completing the training programme.

9.0 NOTICES

UG's representative for receiving notices until further notice shall be:
The Director of Research
Office of Research, Innovation and Development
P. O. Box LG 1145, University of Ghana, Legon, Accra
Email: orid-researchadmin@ug.edu.gh

With a copy to:
Mrs. Diana Adobea Owusu Antwi
Team Leader, Technology Transfer and Intellectual Property Services
Office of Research, Innovation and Development
Email: orid-ipatt@ug.edu.gh

Nazi Boni's representative for receiving notices until further notice shall be:
Name: Dr Moussa OUEDRAOGO
Designation: Head of Department of Pro Vice-Chancellor
Research, Prospecting, International Cooperation
Address: Nazi BONI University, Burkina Faso
Email: ouedmoss@univ-bobo.bf

With a copy to:
Name: PROFESSOR ABDOULAYE DIABATE
Designation: Director of CEA/ITECH-MTV
Email: npiediab@gmail.com

10.0 TERMINATION
Either Party may terminate this Agreement due to a breach or default of the other Party by giving at least (3) days written notice to the other Party.

11.0 GOVERNING LAW
The construction and performance of this Agreement will be governed by the laws of the Republic of Ghana and the language of the contract shall be English.

12.0 FORCE MAJEURE
Neither Party will be liable for losses, defaults, or damages under this Agreement which result from delays in performing, or inability to perform, all or any of the obligations or responsibilities imposed upon it pursuant to the terms and conditions of this Agreement due to or because of Acts of God, acts of government, earthquakes, floods, strikes, civil strife, fire, pandemics including COVID-19, or any other cause beyond the reasonable control of the Party that was so delayed in performing or so unable to perform, provided that such Party was not negligent and shall have used reasonable efforts to avoid and overcome such cause. Such Party shall resume full performance of such obligations and responsibilities promptly upon removal of any such cause.

13.0 DISPUTE RESOLUTION
The Parties to this Agreement agree to resolve any conflicts, misunderstanding, controversy, disputes, or claims arising out of or relating to this Agreement through friendly negotiations between their senior executives or authorized officials.

The Parties agree not to submit any controversy, claim, dispute, misunderstanding for resolution to any arbitral tribunal or court but shall at all times comply with this clause.

14.0 GOOD FAITH
Each Party shall cooperate with the other in good faith to achieve the objectives of this Agreement and shall not unreasonably withhold requests for information, approvals, or consents.

15.0 INDEMNITY
The Parties herein hereby warrant to defend, indemnify and hold harmless each other and each of their trustees, officers, employees, agents and volunteers from and against any and all liabilities, claims, losses, lawsuits, and/or expenses, arising out of, resulting from, or in connection with the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligence or intentional acts or omissions of a Party, its officers, subcontractors, assignees, appointees, agents, or employees.

16.0 COUNTERPARTS
This Agreement shall be signed in duplicates and submitted by electronic transmission as a portable document file (pdf), each of which shall be considered an original and both of which duly executed represent one entire document and shall enter into force and effect on the date on which the last of the two Parties signs the Agreement.

Signed on behalf of
UNIVERSITY OF GHANA

Name of Authorized Official:
PROFESSOR FELIX ANKOMAH ASANTE

Position:
PRO VICE-CHANCELLOR
(Research, Innovation and Development)

Signature and Stamp:

Date:

IN WITNESS THEREOF:

UNIVERSITY OF GHANA
Name: PROFESSOR JOSEPH KOFI TEYE
Director of Research
Office of Research, Innovation and Development

Signature:

Date:

Accepted on behalf of
NAZI BONI UNIVERSITY

Name of Authorized Official:
PROFESSOR HASSAN BISMARCK NACRO

Position:
CHANCELLOR

Signature and Stamp:

Date: 20/01/2023

NAZI BONI UNIVERSITY
Name: DOCTOR JEAN LOUIS ZERBO
Vice-Chancellor
Research, Prospecting, International Cooperation

Signature:

Date: 20/01/2023

Annexes:
Annex 1: Training Programme
Annex 2: Approved Budget

UNIVERSITY OF GHANA

Organisers: Technology Transfer and Intellectual Property Services (TTIPS) team in collaboration with the Capacity Development (CaD) team, of the Office of Research, Innovation and Development (ORID), University of Ghana

1. **Target Audience**: Technology Transfer (TTO) staff, Nazi Boni University

2. **Mode of delivery**: In person (translator required)

3. **Venue, date, and time**
   Monday, 23rd to Thursday, 26th January 2023
   Time: 8.40am to 1.30pm (Monday to Wednesday); 8.40am to 2.40pm (Thursday)
   Venue: ORID Conference Room, LECIAD Building, University of Ghana

4. **Expected Number of Participants**: Three (3)

5. **Goal**: To set up and operate a technology transfer office at Nazi Boni University.

6. **Learning Objective**: To equip TTO staff with the knowledge to establish and operate a technology transfer office.

7. **Learning Outcomes**
At the end of the training, it is expected that participants would:
a) Be able to develop and conduct programmes aimed at raising awareness of intellectual property, and technology transfer.
b) Be equipped with the basic skills to negotiate intellectual property clauses in research contracts.
c) Understand the various forms of intellectual property rights and their applications.
d) Be able to facilitate the protection of research results.
e) Develop capacity to identify innovative (research) projects with market potential, map and promote these projects to partners.
f) Be provided with the knowledge to support the commercialisation of research results and manage intellectual property portfolio.
g) Be equipped with the skills to mobilise financing and support for the incubation of innovative companies.
h) Be able to foster collaborations with industry and other stakeholders to advance research, innovation, and development.

8. **Structure of the programme**
The programme is structured as follows:

Module 1

Day 1: Academia industry collaborations, technology transfer and the role of Technology Transfer Offices
- To introduce participants to the basic concept of technology transfer.
- To discuss the functions of a TTO.
- To highlight the inputs required to establish a TTO, expected outputs of a TTO, and the importance of technology transfer for socio-economic development.
- To engage participants on collaborations with the private sector for research, innovation, and development purposes.

Day 2: Intellectual property and the negotiation of research contracts, intellectual property audit
- To explain the fundamental concepts of intellectual property and intellectual property rights.
- To provide participants with the basic skills to understand, review and negotiate intellectual property clauses in research contracts.

- To discuss the basic steps of undertaking an audit of a university's intellectual assets.

Day 3: Technology Transfer and commercialisation, financing options and support for the incubation of innovative companies
- To give an overview of the technology transfer process.
- To discuss options for technology commercialisation.
- To discuss financing options and support for the incubation of innovative companies.

Day 4: Dissemination of research outcomes, developing and maintaining toolkits for a TTO
- To discuss strategies for disseminating research outcomes to different stakeholders.
- To explain and guide participants in developing toolkits for a TTO.

9. **Type of learning assessment**
- Formative – case studies during some of the presentations.
- Summative – a quiz with multiple choice questions to be taken at the end of the training.

10. **Mechanism to assess audience satisfaction**
- Completion of an evaluation questionnaire at the end of the module.

11. **Resource Persons**
The training would be delivered by subject matter experts from the University of Ghana.

12. **Deliverables:** Certificate of Participation, Training Report

13. **Budget: USD 4,000**

ESTABLISHMENT AND OPERATIONALISATION OF A TECHNOLOGY TRANSFER OFFICE AT NAZI BONI UNIVERSITY

Day 1 – Monday, 23rd January 2023
Facilitator – Mrs. Amma Appah

1. Academia industry collaborations, technology transfer and the role of Technology Transfer Offices (TTOs)

Time	Topic	Presenter
8.30am – 8.40am	Self-introductions	Participants
8.40am – 8.50am	Welcome Remarks	Professor Joseph Teye Director of Research, ORID, UG
8.50am – 9.00am	Remarks	Dr. Moussa Ouedraogo Nazi BONI University
9.000 am – 10.00am	**Presentation 1** Technology transfer and the role of University Technology Transfer Offices	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
10.00am – 11.00am	**Presentation 2** **Establishing a TTO** Inputs, output and expected impact Determining a business model for the TTO.	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 3** Fostering and managing academia industry collaborations	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer, ORID, UG
12.20pm – 1.20pm	**Presentation 4** Identifying, promoting, and mapping university research and innovations to industry and other stakeholders	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer, ORID, UG
1.20pm	**Lunch**	

Day 2 – Tuesday, 24th January 2023
Facilitator – Mrs. Manaa Ampa – Sowa

2 - Intellectual property and the negotiation of research contracts

Time	Topic	Presenter
8.40am – 9.00am	Recap of Day 1 discussions	Mrs. Amma Appah Research Development Officer, ORID, UG
9.00am – 10.00am	**Presentation 5** Introduction to Intellectual Property and Intellectual Property Rights	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
10.00am – 11.00am	**Presentation 6** Understanding, reviewing, and negotiating research contracts	Mrs. Selasie Agamah & Mrs. Grace Martey Research Development Officers, ORID, UG
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 7:** **Case studies:** Understanding, reviewing, and negotiating research contracts	Mrs. Selasie Agamah & Mrs. Grace Martey Research Development Officers, ORID, UG
12.20pm – 1.20pm	**Presentation 8 -** Undertaking an Intellectual Property Audit	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
1.20pm	Lunch break	

Day 3 – Wednesday, 25th January 2023
Facilitator – Mrs. Amma Appah

	3: Technology Transfer, commercialisation options and support for the incubation of innovative companies	
8.40am – 9.00am	Recap of Day 2 discussions	Mrs. Manaa Ampa - Sowah Research Development Officer, ORID, UG
9.00 am – 10.00am	Presentation 9 Technology Transfer Process	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
10.00am – 11.00m	Presentation 10 Commercialisation Options	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	Presentation 11 Financing options and incubation of innovative companies	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer, ORID, UG
12.20pm – 1.20pm	Presentation 12 Identifying and highlighting success stories	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer, ORID, UG
1.20pm	Lunch	

Day 4 – Thursday, 26ᵗʰ January 2023
Facilitator – Mrs. Manaa Ampa – Sowa

Day 4:		
8.40am – 9.00am	Recap of Day 3 discussions	Mrs. Amma Appah Research Development Officer, ORID, UG
9.00am – 10.00am	Presentation 13 Disseminating research outcomes to different stakeholders	Mr. Daniel Anafo Research Development Office, ORID, UG
10.00 – 11.00am	Presentation 14 Planning, developing, and organising sensitisation programmes for faculty and students	Mrs. Diana A. Owusu Antwi & Mrs. Amma Appah Research Development Officers, ORID, UG
11.00am – 11.20am	Comfort Break	
11.20am – 11.50pm	Presentation 15a Developing tool kits for academia industry partnerships	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer, ORID, UG
11.50am – 12.20pm	Presentation 15b Developing tool kits for the management of intellectual property and technology transfer	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
12.20pm – 1.00pm	Lunch	
1.00pm – 1.20pm	Presentation 16a Online quiz	Reps from Nazi BONI University
1.20pm – 1.40pm	Presentation 16b: Discussion of quiz	Mrs. Diana A. Owusu Antwi & Mrs. Mammie Hutchful Nortey Snr. Research Development Officers, ORID, UG Reps from Nazi BONI University
1.40 pm – 2.00pm	Participants share their learning experiences	Reps from Nazi BONI University
2.00pm – 2.20pm	Evaluation of training	Reps from Nazi BONI University
2.30 pm – 2.45pm	Closing	Professor Joseph Teye Director, Research, ORID

Annex 2: Approved Budget

No	Description	Unit Cost (USD)	Quantity	Total Cost (USD	Comments
	ESTIMATED BUDGET FOR TRAINING FOR STAFF OF NAZI BONI UNIVERSITY				
	MODULE 1 4 DAY IN PERSON WORKSHOP				
1	Venue	70.00	4.00	280.00	For use of ORID Conference Room
2	Snacks, Lunch and water	9.00	40.00	360.00	USD9 per day for 10 persons for 4 days. This covers meals for 1 Translator, 3 staff of Nazi Boni, 1 facilitator, 1 ORID driver, 2 resource persons,1 Admin Assistant and1 IT support staff
3	Fees for Resource Persons	110.00	16.00	1,760.00	For 16 sessions in the module. This amount covers content preparation, delivery
4	Facilitator Fees	40.00	4.00	160.00	For facilitation and support services @ USD40 per person for 4 days
5	Translation fees	250.00	4.00	1,000.00	Cost of providing translation services at USD250 per day for 4 days
6	Workshop organisation and support	20.00	8.00	160.00	USD20 per person per day for 4 people, i.e. 1 Admin Assistant from CaD / TTPS, 1 IT support staff, 1 driver, 1National Service Person
7	Workshop pack	6.00	3.00	18.00	Note pads, pens, name tag, flip chart, certificate of participation
8	Service Charge	30.00	8.00	240.00	Cost of conducting scoping exercise, needs assessment, development of course structure and outline, budget preparation, report writing, accounting services, etc.
9	Miscellaneous	22.00	1.00	22.00	For incidentals
	Total			4,000.00	
	DAY 5 - VISIT TO WACCBIP INCUBATION HUB AND TECH TRANSFER OFFICE				
1	Translation Fee	250.00	1.00	250.00	Cost of translation services at USD250 per day
2	Vehicle cost (Usage and fuel)	60.00	1.00	60.00	For use of vehicle and fuel
3	Lunch	6.00	5.00	30.00	Lunch for 3 staff of Boni Nazi, 1 driver, 1 Admin assistant and a translator
4	Organisation and support charge	20.00	3.00	60.00	USD20 per person per day for 3 persons
5	Miscellaneous	50.00	1.00	50.00	For incidentals
	Total			450.00	

TRAINING REPORT

SETTING UP A TECHNOLOGY TRANSFER OFFICE AT NAZI

BONI UNIVERSITY, BURKINA FASO

ORGANISED BY

THE TECHNOLOGY TRANSFER AND INTELLECTUAL PROPERTY SERVICES AND CAPACITY DEVELOPMENT TEAMS OF THE OFFICE OF RESEARCH, INNOVATION AND DEVELOPMENT

UNIVERSITY OF GHANA

JULY 2023

Table of Contents

1. BACKGROUND

In November 2022, the Office of Research, Innovation and Development (ORID), University of Ghana (UG), received a request from the Director of the African Centre of Excellence in Biotechnological Innovations for the Elimination of Vector Borne Diseases (CEA/ITECH-MTV), at the Nazi Boni University (UNB), Burkina Faso, to visit the Technology Transfer and Intellectual Property Services (TTIPS) unit at UG, with the aim of setting up a Technology Transfer Office (TTO) at UNB, for the benefit of CEA/ITECH -MTV students. CEA /ITECH-MTV seeks to be part of a network of leading institutions in the fields of innovation and research in health biotechnologies.

The TTIPS and Capacity Development Team (CaD) subsequently held discussions with the CEA/ITECH-MTV team, to gain a better understanding of their request. Following this, a needs analysis gap was undertaken, and a scoping questionnaire administered to gather information on the existing structures for managing intellectual property and technology transfer at UNB, as well as the gaps in the skills needed to establish and manage a TTO. The findings from the scoping exercise and needs gap analysis and matters arising from discussions with the UNB team informed the development of a training module for CEA/ ITECH-MTV. The TTIPs team in collaboration with the CaD team offered a four-day training programme for three officials of the ECA / ITECH-MTV from 23rd to 26th January 2023 in the ORID Conference room.

Please see Appendix 1 - Report on Scoping Exercise and Needs Gap Analysis

2. LEARNING OBJECTIVE AND OUTCOMES

The objective of the module was to equip learners with the requisite knowledge and skills to set up and operate a TTO at UNB.

At the end of the training, learners were equipped with knowledge to:

- Negotiate and manage research contracts.
- Develop and conduct programmes aimed at raising awareness and understanding of academia industry partnerships, intellectual property, and technology transfer.
- Understand the various forms of intellectual property rights and their applications.
- Identify innovative (research) projects with market potential, map and promote these projects to partners.
- Facilitate the protection of research outputs.
- Commercialise research outputs and manage an intellectual property portfolio.
- Mobilise financing and support for the incubation of innovative companies.
- Foster collaborations with industry and other stakeholders to advance research, innovation, and development.

Kindly refer to Appendix 2 for the Training Programme Outline.

3. PROFILE OF PARTICIPANTS

Below are the details of the participants.

- Mr. Moussa Ouedraogo; Director – Incubation Hub, CEA/ITECH-MTV
- Mr. Halidou Bamogo; Head, Department of Chemistry
- Mr. Silvain Ouedraogo; Monitoring and Evaluation Officer, CEA/TECH-MTV

The training was delivered by subject matter experts from ORID. Below is a brief description of the resource persons and the sessions facilitated. **Please Appendix 3 for the Profile of Resource Persons**.

NO	NAME	DESIGNATION	TITLE OF PRESENTATION
1.	Diana A. Owusu Antwi	Senior Research Development Officer	a) Technology transfer and the role of university TTOs. b) Establishing a TTO. c) Introduction to intellectual property and intellectual property Rights. d) Undertaking an intellectual property audit. e) The technology transfer process. f) Technology commercialisation options.
2.	Mammie Hutchful Nortey	Senior Research Development Officer	a) Fostering and managing academia industry collaborations. b) Identifying, promoting, and mapping university research. and innovations to industry and other stakeholders. c) Financing options and incubation of innovative companies. d) Identifying and highlighting success stories.
3.	Selasie Agamah and Grace Martey	Research Development Officers	a) Understanding, reviewing, and negotiating research contracts.
4.	Daniel Anafo	Research Development Officer	a) Disseminating research outcomes to different stakeholders.
5.	Amma Afumwaa Appah	Research Development Officer	a) Planning, developing, and organising sensitisation programmes for faculty and students.
6.	Yvonne Boatemaa – Yeboah	Senior Administrative Staff	a) Developing tool kits for academia industry partnerships. b) Developing tool kits for the management of intellectual property and technology transfer.

5. TRAINING ACTIVITIES

The training activities comprised presentations, case studies, discussions, demonstration, and an evaluation quiz at the end of the training. Four topics were covered daily. The presentations were made in English and translated to French with the aid of a professional translator.

6. TRAINING CONTENT

6.1 Technology Transfer and the Role of University Technology Transfer Offices

The presentation gave an overview of technology transfer and enlightened participants on the benefits of technology transfer to society. It also highlighted a shift in the missions of most universities from the traditional role of teaching and research to a third mission – outreach, engagement, or impact, as well as the measures (being) put in place by universities to support this third mission. In addition, it explained the supporting role of TTOs in facilitating university technology transfer to solve industry and societal problems and expounded on the functions of TTOs along four main areas; a) creating and maintaining partnerships

between academia and industry; b) protecting and managing intellectual property; c) facilitating and managing technology transfer and commercialisation, and d) promoting entrepreneurship.

6.2 Establishing a University Technology Transfer Office

This presentation equipped learners with knowledge on the key inputs for establishing a TTO, determining a business model for the TTO and the outputs expected of the TTO. Setting up a TTO requires appropriate input and resources to generate output and create impact. The mission of the university, an objective(s) for the TTO, budget and tools (e.g., staff, intellectual property policy, policy guidelines, model agreements, etc.), were identified as inputs critical to the TTO's operation. An appropriate business model was also recognised as essential to forming the main strategic direction for the TTO. The qualitative and quantitative indicators by which the performance of the TTO could be measured were also explained. These included the number of invention disclosures, number of patent applications, number of granted patents, number of licenses executed, number of startups, number of jobs created and impact on society.

6.3 Fostering and Managing Academia - Industry Collaborations

This presentation highlighted academic and industry collaborations, introduced learners to the basic steps to establish healthy collaborations and how to manage these partnerships for mutual benefit. Mention was made of the need to identify the key stakeholders to a collaboration in line with the objective of the collaboration. The steps to establish academia industry collaborations emphasized included:

a) Undertaking a need assessment.
b) Establishing clear goals for the partnership.
c) Setting roles and rules for engagement.
d) Agreeing on costs (where applicable).
e) Putting in place an appropriate contractual framework and procedure (e.g., Memorandum of Understanding, Non-Disclosure Agreement, monitoring and evaluation, soft skills), to guide and manage the partnership.

The presenter also explained the benefits of collaboration to the parties and third parties, and highlighted some benefits as follows:

a) Increased funding to the academic institution.
b) Economic growth and development.
c) Impact.

Case studies were presented on some collaborations between UG and businesses, that had been facilitated by the TTIPS team and the outcomes of these collaborations.

6.4 Identifying, Promoting and Mapping University Research and Innovations to Industry and Other Stakeholders

The transfer of research outcomes and innovations to key beneficiaries is a major indicator of the impact of universities within their communities, and their contribution to national/global development. This presentation outlined pathways to achieving this using a targeted approach that builds on understanding key stakeholders of the university. Learners acquired knowledge on how to identify, promote and match a university's research and innovations to industry and other relevant stakeholders. They understood the importance of having a matrix to help to identify stakeholders, either by:

a) Sector (e.g., public, private, voluntary, communal).
b) Function (e.g., user, service provider, regulator, landowner, decision-maker).
c) Geography (e.g., dwelling within postal district, flood risk area).

d) Socio-economic standards (income, gender, age, length of time living in neighbourhood).

Mention was also made of the need to engage stakeholders through a needs assessment.

A stakeholder mapping and matching is then undertaken based on identified stakeholders' interest and influence to promote focus and increase impact. The presentation also touched on the channels of promoting research and innovation, with case studies on the University of Ghana.

Day 2

Day 2 started off with a re-cap of the previous day's activities. Learners also provided feedback on training contents, and the mode of delivery, acknowledging that the contents were in line with their project activities and were easy to understand and they liked the training methodology.

6.5. Introduction to Intellectual Property and Intellectual Property Rights.

The presentation introduced learners to the basic concept of intellectual property and intellectual property rights. The resource person drew a distinction between intellectual property and intellectual property rights, explained the key characteristics of intellectual property rights, as well as the two main categories of intellectual property rights. The presentation explained the various forms of intellectual property, the requirement for protection including the application process, the associated intellectual property right, and the period of protection. The benefits of intellectual property rights to the creator, institution and economy were also explained. This presentation included case studies that sought to test the ability of learners to identify intellectual property in a work created, intellectual property right, and infringement of intellectual property. Learners also had the opportunity to share cases of intellectual property infringement recorded in Burkina Faso.

6.6 Understanding, Reviewing and Negotiating Contracts

This session introduced participants to the components of a contract, types of contracts, the UG contracting model, and some key negotiating tips. The presentation was aimed at equipping learners with knowledge of contracts, the importance of understanding a contractual document prior to signing off, what to negotiate and how to negotiate. Learners were briefed on the procedures involved in the reviewing and negotiation of contracts, intended to:

a) Ensure risk mitigation and compliance.
b) Adhere to institutional policies and regulations.
c) Protect the interest of the principal investigator and institution.

The presentation highlighted:

a) The need to put in place research-related policies and guidelines to support the award review and negotiation process.
b) The importance of establishing a signing authority for grants and contracts.
c) The need for streamlined, standardised, and documented operating processes and procedures and tools to ensure harmonisation of procedures; and
d) The need for systems that ensure fairness, reduce subjectivity and aids transparency of processes.

The case study helped the learners to get a better appreciation of the contracting process which will help in developing their own institutional models. They were introduced to the components of a contract and the contract review process at UG and guided on how to identify potential areas of risks. Thus, the case study enabled the participants to practicalise the concept of contracts, understand the contracting process from the perspective of the contracting parties, and identify the different types of contracts to be put in place

under different scenarios. Participants were also exposed to the structure and operations of the Pre and Post Awards Services team at ORID, which operates through the sequence of Pre – award, Award and Post Award processes. Participants also had the opportunity to explore various types of contracts and agreements such as material transfer, equipment transfer and non-disclosure agreements.

6.7 Technology Transfer Process

This presentation explained the options for commercialising intellectual property or technology, the processes involved, outlined UG's approach to technology transfer and explained the systems in place to promote and support technology transfer at UG. The presentation explained the two main types of technology transfer (vertical and horizontal); the avenues for transferring technologies (e.g., publications, internships, knowledge exchange or sharing, academia industry partnerships). Participants were taken through the various stages of the technology transfer process, and guided on the role played by researchers, the TTO, other units within the institution and third parties throughout the process, as well as the systems required to support the process, using UG as an example.

Day 3

Day 3 began with a summary of learnings from the previous day. Participants also sought clarification on a few issues.

6.8 Technology Commercialisation

The presentation described technology commercialisation and the options for commercialising intellectual property or technology. It explained the options for commercialisation along three lines:

a) Do it yourself approach (i.e., startup formation, venture financing.
b) Do it with others (i.e., licensing, joint ventureship, merger).
c) Let others do it (i.e., assignment).

The presentation emphasized the need for the allocation of benefits from commercialisation to clearly stipulated in the institutional Intellectual Property Policy. Further, the presentation explained some of the challenges to commercialisation such as the technology readiness level, lack of finance and other resources to put the product on the market, and non-viability of the technology. It highlighted the role of intellectual property rights in facilitating access to funding and other support to help to get a technology onto the market.

6.9 Undertaking an Intellectual Property Audit

This presentation informed participants about an intellectual property audit and is expected to enable them to identify and assess potential intellectual property assets in their organisation, the associated risks, and opportunities; as well as intellectual property-related policies, agreements, and procedures. The presenter explained some of the reasons for conducting an IP audit, i.e.:

a) To determine ownership of intellectual property assets.
b) To identify un-used or under-utilised intellectual property to inform decision making on utilisation,
c) To identify intellectual property fundamental to an institution and make licensing decisions accordingly.
d) To assess the commercial, financial, and legal risks linked to the institution's intellectual property portfolio.
e) To save cost by making decisions on outdated intellectual property.
f) To enable the implementation of the best practices for managing intellectual property assets.

The presentation also explained the types of intellectual property audit (i.e., limited purpose, event driven and general purpose) and the steps to conducting the audit (i.e., establishing a purpose for the audit; gathering information on how intellectual assets relate to the institution's strategies (ies), developing an audit plan; evaluation of the adequacy of provisions in intellectual property related agreements; developing an intellectual property protection plan, etc.). The cost and benefits associated with the pursuit of intellectual property protection and the need to strategically exploit the intellectual property rights to support the growth of the institutions were emphasized.

6.10 Financing Options, Incubation of Innovative Companies

This presentation discussed start up financing, the avenues for exploring alternative funding sources for innovative ventures, the incubation of new businesses, and the stages involved. The resource person explained the funding needs of new ventures to:

a) Address cash flow challenges.
b) For capital investments.
c) For product development.

The presentation also explained how the funding needs could be addressed with various financing options. The resource person additionally highlighted some success stories from the UG Business School Hub (UGBS Nest). An incubatee shared her experience of how the incubation programme at the UGBS Nest had supported the establishment of her start-up.

6.11 Identifying and Highlighting Success Stories

This presentation provided information on highlighting the successes of the TTO and highlighting these successes to various stakeholders. The key factors to be considered in highlighting success stories included:

a) Content preparation (a clear, brief, and strategic content with a defined focus (i.e., people, place, and process/product).
b) A target audience.
c) Medium of communication (e.g., newsletters, websites, social media, informal consultations).

The presenter explained a good success story communicated an achievement towards the realisation of an organisational goal; showcased the outcomes of collaborations, transparency, and value for money; and demonstrated efforts at creating impact.

Illustrations of some success stories on UG were presented.

Day 4

6.12 Disseminating Research Outcomes to Different Stakeholders

This presentation focused on the strategies for disseminating research outcomes to various stakeholders to maximise the benefit of the research. The strategies involved in dissemination consider the nature of the research, the objectives, target audience, tools, potential risks, benefits, and expectations to be met. The presenter explained the strategies to ensure a successful dissemination of research outcomes including the need to:

a) Involve stakeholders in the early stages of the research to ensure evidence produced is grounded, relevant, accessible, and useful.
b) Disseminate research outcomes in a clear and concise manner to a targeted group.
c) Develop specific timelines for dissemination.
d) Identify the resources needed for dissemination.

e) Determine the frequency of dissemination.

Some potential risks that may arise in dissemination, e.g., wrong interpretation, misrepresentation, miscommunication, exaggeration of findings and criticism were explained. Participants were encouraged to effectively disseminate research outcomes as dissemination created awareness of an institution's research strengths and capabilities; promoted informed decision making and knowledge transfer, helped to elicit further discussion, collaboration, and new insights; provided an avenue to mobilise research funding, thereby enhancing the public image of the institution.

6.13 Planning, Developing, and Organizing Sensitization Programmes for Faculty and Students

The presentation provided learners with information and skills to plan and organise activities to raise awareness about the operations of the TTO, intellectual property and technology transfer. The presenter explained the activities and resources required to plan, develop, and organise sensitisation programmes. Participants were informed about the various types of capacity building activities, the need to identify a targeted group, conduct a needs assessment, identify skills and resources needed for the programme, a means of evaluating if the objective of the programme has been achieved, as well as a means of assessing participants' satisfaction.

6.14 Developing Tools Kits for Managing Academia-Industry Partnerships, IP and Technology Transfer

This presentation explained and guided participants in developing toolkits for a TTO. It provided a step-by-step guide and advice on the tools required to conduct and manage academia industry partnerships. The key tools identified included:

a) Stakeholder analysis (to facilitate an engagement between academia and industry).
b) Defining the scope of collaboration, obligation of the parties; deliverables and milestones.
c) Contractual agreements.

The resource person further explained the toolkits needed to manage intellectual property and technology transfer. The presenter indicated that in developing these toolkits, considerations must be given to the policies and requirements of funding agencies (where applicable).

Learners were also introduced to some of the toolkits used at the University of Ghana, e.g., Intellectual Property Policy, Intellectual Property Disclosure Forms, and model agreements.

The presentations are accessible via NAZI BONI PRESENTATIONS _ PDF _ SHARE

Photographs of the sessions are available at https://photos.app.goo.gl/PuLTh6MHGjFy9mKx9 and https://photos.app.goo.gl/C41aLwzMRFaKRbTj8

7. ASSESSEMENT OF THE TRANING MODULE

Learners engaged in a quiz at the end of the module to ascertain their knowledge and understanding of the topics presented. The quiz was administered with the use of Aha slides, an online quiz app.

See Appendix 4 – Quiz Questions

Learners also shared their learning experiences and provided feedback on the training programme.

See Appendix 5 – Assessment of Training Module

8. OTHER ACTIVITIES

The UNB team also had the opportunity to engage with the Head, Department of Chemistry at UG, and visited a laboratory at the department. They also interacted with officials of the West African Centre for Cell Biology of Infections Pathogens (WACCBIP), as well as the Director of the Science, Technology, and Innovation Policy Research Institute of the Council for Scientific and Industrial Research and took a tour of the UGBS Nest.

9. CLOSING OF WORKSHOP

Mrs. Cynthia Adu, a Deputy Registrar at ORID, in giving the closing remarks, expressed gratitude to UNB, on behalf of the Pro Vice Chancellor; Research, Innovation and Development, for choosing UG as the place to acquire knowledge to set up and operate a TTO. She was hopeful the knowledge acquired will serve as a learning guide to aid the establishment and operations of the TTO, and offered best wishes in that regard. Mrs. Adu also thanked the TTIPs and CaD teams for successfully organising the programme.

10. RECOMMENDATIONS

The trainers recommended the underlisted to enable the establishment, operation, and sustainability of the TTO.

a) **Institutional buy-in:**
The buy-in of UNB management was identified as a major factor in the establishment, operationalisation, visibility and success of the TTO. Institutional buy-in is critical to provide an enabling environment and resources for the TTO to thrive and perform its functions efficiently.

b) **Budgetary allocation required for TTO:**
An annual budgetary allocation is needed to support the activities of the TTO including funding for the protection, and maintenance of intellectual property.

c) **Staffing**
It is recommended that the core TTO team be comprised of administrative staff (research managers and administrators) and not academic staff. This was to enable academic staff to focus on their core responsibilities of teaching and research, whilst administrative staff managed the TTO.

d) **Capacity development**
There is a need to further develop the capacity of the TTO staff to manage academia industry partnerships, intellectual property, and technology transfer. Members were encouraged to participate in the Intellectual Property Distance Learning Programmes offered by the World Intellectual Property Organisation (WIPO), embark on study visits to other TTOs to appreciate how different TTOs worked, and to join an association of technology transfer managers (e.g., Association of University Technology Managers – AUTM, as they provided an avenue to network, share knowledge, experience, and resources).

e) **Development of toolkits:**
The need to develop toolkits for the TTO, including a standard operating procedure, intellectual property policy, model guidelines and agreements. Participants were encouraged to visit the

websites of WIPO, which had a wealth of information to guide the operations of the TTO, as well as the website of other TTOs to guide the development of the toolkits.

f) **Sensitisation programme:**
Organise (targeted) sensitisation programmes to create awareness of the TTO, academia industry partnerships, intellectual property and technology transfer for students and researchers. External resource persons may be used for these programmes at the initial stages whilst UNB builds upon its capacity to deliver these programmes independently. In addition, UNB should seek technical support from African Intellectual Property Office to deliver the sensitisation programmes.

g) **Monitoring of progress:**
It is recommended that UNB shares with the UG progress made towards the set of the TTO and its operations on a semi- annual basis over a two-year period. This is to enable the UG team to offer advice and support as may be required for that endeavour and will also serve as a means of measuring if the expected outcomes of the training programmes are being/have been met.

11. CONCLUSION

We are optimistic that UNB will apply the knowledge gained from the training and adopt the recommendations proffered in setting up, operating, and sustaining its TTO.

APPENDIXES

1. Appendix 1 – Report on and Scoping Exercise and Needs Gap Analysis
2. Appendix 2 – Training Programme Outline
3. Appendix 3 – Profile of Resource Persons
4. Appendix 4 – Quiz Questions
5. Appendix 5 – Assessment of Training Module

APPENDIX 1

REPORT ON A SCOPING EXERCISE TO ASSESS STRUCTURES AND SYSTEMS FOR MANAGING INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER, AND A NEED GAP ANALSYIS OF SKILLS SET OF THE TECHNOLOGY TRANSFER TEAM AT NAZI BONI UNIVERSITY

1. Introduction

Nazi Boni University (UNB) located in Burkina Faso, has established the African Centre of Excellence in Biotechnological Innovations for the Elimination of Vector-borne Diseases (CEA / ITECH-MTV). The Centre seeks to be part of a network of leading institutions in the fields of innovation and research in health biotechnologies.

Following a request from CEA / ITECH-MTV to the Office of Research, Innovation and Development (ORID), University of Ghana, to conduct a training workshop to equip the CEA / ITECH – MTV with the skills to set up and operate a Technology Transfer Office (TTO), the team at ORID, undertook an exercise to gather information on the existing structures for managing intellectual property and technology transfer at UNB, as well as the gaps in the skills needed to establish and manage the TTO.

2. Observations from Scoping Exercise
  a) Structures for managing research
  - Vice President in charge of Research, Prospective and International Cooperation.
  - Business incubator service.

  b) Gaps in intellectual property and innovations management, and technology transfer
  - No existing structures for the management of intellectual property and technology transfer.
  - Lack of skills set to establish and operate a TTO.

However, CEA/ ITECH-MTV is exploring collaboration with the African Intellectual Property Office (AIPO) to enable it to develop the necessary systems to manage intellectual property and technology transfer.

3. Findings from Skills Gap Analysis
  - The Gap Assessment was based on an evaluation of the skills of the staff in the TTO vis -a vis the skills needed to manage the TTO.
  - This was classified into eleven groups and ranked on a scale of 1 – 5, as interpreted below:
    - 5 = High level of competence - extensive experience in the skill area
    - 4 = Moderately high level of competence - good experience in the skill area
    - 3 = Average level of competence – some experience in the skill area
    - 2 = Low level of competence – little experience in the skill area
    - 1 = No level of competence – no experience in the skill area
  - 8 out of 11 categories were marked as 1, meaning Nazi Boni had no level of competence.
  - 3 out of 11 groups were marked as 2 meaning Nazi Boni had a low level of competence.
  - Nazi Boni indicated a desired state of 4, representing a moderately high level of competence for all the 11 categories.
  - Table 1 summarises the current and desired state of the skills set of the TTO staff.

No.	Description Of Skills	Current State	Desired State
1.	Identification of innovative projects with added value and positioning in relation to the competition and market needs.	1	4
2.	Protection of research results through the filing and maintenance of intellectual and industrial property rights.	1	4
3.	Implementation and management of validated maturation projects;	1	4
4.	Commercialisation through transfer to the economic world in the form of licensing and start-up creation.	1	4
5.	Detection of innovations with development potential and identification of market needs.	1	4
6.	Management, within the framework of service provision, of intellectual property rights portfolios.	1	4
7.	Support activities for the negotiation of contracts relating to research projects with companies.	2	4
8.	Awareness-raising activities for staff and students on innovation, transfer, and intellectual property.	1	4
9.	Promotion and mapping of the research offer and detection of partners.	2	4
10.	Monitoring, studies and mapping of research topics, markets (needs, players, regulations, etc.) and intellectual property.	1	4
11.	Management of partnership research contracts, financing, and support for the incubation of innovative companies.	2	4

Table 1: Findings from Skills Gap Analysis

4) Identified Training Needs

Based on information obtained through the scoping exercise, needs assessment as well as interactions, the ORID team identified the areas below to be covered by the training programme:

- The skills set to establish and operate a TTO.
- Basic knowledge on intellectual property, innovation, and technology transfer.
- Skills to create awareness of IP and technology transfer for faculty and students.
- Ability to promote and manage research collaboration between researchers and industry.
- Ability to commercialise technologies through licensing or start up creation.
- Guidance to develop an operational manual for the TTO.

This was discussed with the UNB team and agreed upon, and formed the basis for development of the Training Programme Outline.

Diana Adobea Owusu Antwi is a Senior Research Development Officer assigned to the Technology Transfer and Intellectual Property Services Team, at the Office of Research, Innovation and Development (ORID), University of Ghana.

In her current role, Diana is responsible for leading a team in the management of university industry partnerships, intellectual property, and technology transfer. Her achievements include the development of a framework for the operationalization of the intellectual property and technology transfer arm of ORID. She has rich expertise in the development of policy, guidelines, agreements and standard operating procedures for research, university industry partnerships, intellectual property, and technology transfer. She has also developed and delivered several training and sensitisation programmes on intellectual property and technology transfer. Additionally, she has facilitated some partnerships between the University and the private sector, to help to advance research, innovation, and development.

Diana has served as a member of the University of Ghana Intellectual Property Committee since 2016. She is also a Co-chair of the African Sub – Committee of the International Strategy Committee, Association of University Technology Managers (AUTM). She holds an MPhil in Economics degree, and a Bachelor of Arts degree in Economics with Geography and Resource Development, from the University of Ghana. Diana has successfully completed the World Intellectual Property Organisation (WIPO) Academy Continuous Training Program for Trainers of IP Training Institutions and is a Certified Data Protection Supervisor. She has also undertaken research management fellowships in the Office of Technology Management, Pennsylvania State University, USA, under the auspices of the IREX University Administrators Support Program, and the Research Contracts and Intellectual Property Services of the University of Cape Town under the ARISE Intra ACP Mobility Programme.

Diana has a passion to share knowledge and inspire people to attain greater success and impact. She can be reached by email at daowusuantwi@ug.edu.gh

Mammie Hutchful Nortey is a Senior Research Development Officer assigned to the Technology Transfer and Intellectual Property Services Team. In her current role, she serves as a liaison between industry and communities to access knowledge, technical skills, and solutions from academia to address their needs and challenges. She also assists in the articulation of university research to entrepreneurs and stakeholders to help identify market applications. Additionally, Mammie facilitates proposal writing and fundraising for the Office. Prior to this role, she worked with the Ghana Urban Transport Project as the Capacity Development Officer.

Mammie serves on various committees such as the Vic Chancellor's One Student One Laptop initiative, UG Research Strategy, the Registrar's Annual

Seminar and the Dairy Research Improvement and Innovation Consortium. She is also the secretary to the University of Ghana Intellectual Property Committee.

She holds a Bachelor of Science Degree in Geography, Environmental Science and Missions from Calvin College, Grand Rapids, Michigan -USA and a Master of Arts Degree in Urban Planning from the University of Akron, Ohio –USA.

Mammie has great interpersonal and communication skills and is passionate about making great impact. She can be reached via mnhutchful@ug.edu.gh

Selasie Agamah joined University of Ghana in February 2013 and is a Research Development Officer and the Team Leader for the Pre-and Post-Award Services team at the Office of Research, Innovation and Development (ORID). The Pre-and Post-Award (PPA) services team is responsible for research grants and contracts management for the University including putting in place systems to mitigate risk and ensure compliance with funder requirements and institutional regulations. In her role as team leader of the PPA team, her primary responsibility is to provide oversight for the efficient delivery of the functions and activities of the team.

Selasie also provides oversight for the University's internal funds portfolio as well as the International Mobility and Academic Partnership projects. Before joining the University, Selasie worked extensively with a number of donor funded development projects in various project management capacities where she was responsible for project implementation and administration.
She holds a Master's Degree in Development Management from the Ghana Institute for Management and Public Administration. She can be reached on sagamah@ug.edu.gh

Grace Martey is a Research Development Officer in the Pre- and Post-Award Services team of the Office of Research, Innovation and Development (ORID). She has extensive experience and training in research administration and management in the higher education sector and has held several roles culminating in her experience in pre- and post-award, specifically, in the areas of proposal development and grant submissions, contracts management and post award management and compliance.

Grace is currently the Award Services Coordinator responsible for coordinating the University's award processes for research grant agreements awarded to the University and delivered through ORID. In this current schedule, Grace oversees the contract review and negotiation processes, due diligence, and

sub-awarding processes with the ultimate aim of projecting the University whilst minimizing institutional risks.

Grace has training in grantsmanship and has participated in a number of research management study visits and fellowships including visits to University of Cape Town, University of Pretoria, University of Cambridge, University of Sussex and recently, University of Georgia, USA as a fellow under the IREX University Administration Support Program (UASP). She has delivered trainings and presentations to various stakeholders including early career researchers, colleagues and research support staff within the University of Ghana and beyond. She is currently a member of a number of professional bodies including SARIMA and NCURA, USA.

Grace has great communication skills, positive attitude, a good team player and believes in continuous improvement. She is passionate about process improvement and contributing to inform strategy to enhance team delivery. She can be reached via email at: gannan@ug.edu.gh

Amma Appah is a Research Development Officer in charge of the Capacity Development Team at the Office of Research, Innovation and Development, responsible for development and implementation of capacity-building programmes for staff, students and faculty. She has experience in research management specifically in capacity building and student mobility training. Over the period as a team leader, she has developed grantsmanship training for early-career researchers and graduate students, grant management training for research managers and support staff and has provided training and logistical support to various projects to implement their capacity building activities.

Prior to joining the Capacity Development team, she was a member of the Pre- and Post-Award Services team responsible for the management of various International Mobility and Academic Partnership projects at the ORID such as TDR International Post-Graduate Training Scheme, ARISE and TRECCAfrica Projects, Building Stronger Universities (BSU) Phase II and III Projects. Amma also worked with the Publication, Dissemination and Translation team where she was part of a team that produced the first two UG Research Reports.

She has had the opportunity to participate in research management training and study visits. She is currently undertaking a research management fellowship program under the auspices of the IREX University Administrators Support Program (UASP) in the USA.

Amma has great interpersonal and communication skills and is able to work with diverse groups of people. she believes in excellent service delivery and above all has a positive attitude. She can be reached at aaappah@ug.edu.gh

Daniel Kwasi Anafo joined the Office of Research, Innovation and Development in 2018 as a Research Development Officer and has been an integral member of the Publication, Dissemination and Translation (PDT) team. The team is charged with the mandate of supporting the research of faculty by extending their research outcomes beyond the scientific community to the public.

As an integral member of PDT, Daniel has been actively involved in scouting, soliciting, developing, and reviewing articles; and conceptualising the design of the contents for the publication of UG's foremost research magazine 'Inspiring UG' and the Annual Research Report which highlights ongoing and novel research activities of faculty and units in the University. Daniel supports the dissemination/translation activities of faculty and postgraduate students by proffering alternative approaches and strategies that can be used to disseminate for impact. Periodically, Daniel and his team liaise with the Capacity Development team to organise training programmes on best practices on research dissemination/translation for faculty and postgraduate students.

Daniel holds a Bachelor of Science degree in Computer Science and Statistics from the University of Ghana and a Master of Science degree in Management Information Systems from the Ghana Institute of Management and Public Administration.

Daniel is passionate about addressing the socio-economic challenges of the society using evidence-based research findings that impacts the livelihoods of the people. He can be reach on dkanafo@ug.edu.gh

Yvonne Boatemaa-Yeboah is a development enthusiast with experience in research and programme management. Prior to joining the University of Ghana, she worked with both national and international development organisations. With an MPhil in Development Studies, she provides administrative support services to the Technology Transfer and Intellectual Property Services Team at the Office of Research innovation and Development.

Yvonne can be reached on yboatemaa-yeboah@ug.edu.gh

APPENDIX 4 – QUIZ QUESTIONS

1. **The author of a book titled "A new year, a new beginning" sues the producer of a movie for adapting her book into a movie without her permission. Identify the type of intellectual property right that has been infringed.**
   a) Copyright
   b) Moral right
   c) Trademark
   d) Trade secret

   The correct answer is a)

2. **Which of the following is / are an objective(s) for establishing a university technology transfer office?**
   a) To promote research collaborations between researchers at the university and industry.
   b) To mobilise research funding from industry.
   c) To transfer technologies from the university to the private sector to solve industry and societal problems.
   d) To be recognised as a university with great potential for attracting faculty and students.

   The correct answers: are a), b), and c)

3. **Technology transfer offices perform the following activities, except**
   a) Pre – assess intellectual property disclosures.
   b) Grant intellectual property rights
   c) Facilitate evaluation of intellectual property disclosures.
   d) Support/facilitate the protection of intellectual property.

   The correct answer is b)

4. **Which of these is / are inputs that must be considered in establishing a university technology transfer office.**
   a) The mission of the university
   b) The core values of the university
   c) An objective of the technology transfer office
   d) Budget
   e) Performance metrics
   f) Tools

   The correct answers are a), c), d) and f)

5) The kind of license that allows the licensor to license the intellectual property right and to also exploit the rights is known as

        a) Exclusive license
        b) Sole license
        c) Non – exclusive license
        d) Co-operative license

The correct answer is b)

6) In drafting a contract, what are the initial three key things you should consider in determining the type of agreement?

        a) Intellectual property, materials involved, payment plan
        b) Scope of work, person/institutions involved, funding arrangements
        c) Budgets, governing law
        d) Insurance, indemnity and liability

The correct answer is b)

7) Which of the following is not an importance of research dissemination?

        a) Awareness creation
        b) Stakeholder engagement
        c) Funding support
        d) Performance metrics

The correct answer is d)

8) What are the minimum number of steps required to establish an equitable academia industry partnership? Select all that apply.

        a) Engage
        b) Set goals
        c) Define rules of engagement
        d) Cost and contract

The correct answers are a), b), c) and d)

9) How many categories exist in the stakeholder analysis framework? Select all that apply.

        a) High Influence, High Interest
        b) High Influence, Low Interest
        c) Low Influence, High Interest
        d) Low influence, Low Interest

The correct answers are a), b), c) and d)

10) Concerning equity funding, what are the two main types discussed?

    a) Business angels and venture capital
    b) Venture capital and start ups
    c) Business angels and networks

The correct answer is a)

11) Indicate any two features of a good success story.
Learners may list any 2 of the following:
a) Societal Impact
b) Generates excitement,
c) demonstrates accountability and transparency
d) contributes to attainment of institutional goals

APPENDIX TWO – TRAINING PROGRAMME OUTLINE

Organisers: Technology Transfer and Intellectual Property Services (TTIPS) team in collaboration with the Capacity Development (CaD) team, of the Office of Research, Innovation and Development (ORID), University of Ghana

1. **Target Audience:** Technology Transfer (TTO) staff, Nazi Boni University.

2. **Mode of delivery**: In person (translator required).

3. **Dates, time, and venue**
   Dates: Monday, 23rd to Thursday, 26th January 2023.
   Time:
   - 8.40am to 1.30pm (23rd to 25th January 2023)
   - 8.40am to 2.40pm (26th January 2023)
   Venues:
   - ORID Conference Room, LECIAD Building, University of Ghana
   - UGBS Innovation and Incubation Hub, University of Ghana

4. **Number of Learners:** Three (3)

5. **Goal:** To set up and operate a technology transfer office at Nazi Boni University.

6. **Learning Objective:** To equip TTO staff with the knowledge to establish and operate a technology transfer office.

7. **Learning Outcomes**
   At the end of the training, it is expected that learners would:
   a) Be able to develop and conduct programmes aimed at raising awareness of intellectual property, and technology transfer.
   b) Be equipped with the basic skills to negotiate intellectual property clauses in research contracts.
   c) Understand the various forms of intellectual property rights and their applications.
   d) Be able to facilitate the protection of research results.
   e) Develop capacity to identify innovative (research) projects with market potential, map and promote these projects to partners.
   f) Be provided with the knowledge to support the commercialisation of research results and manage intellectual property portfolio.
   g) Be equipped with the skills to mobilise financing and support for the incubation of innovative companies.
   h) Be able to foster collaborations with industry and other stakeholders to advance research, innovation, and development.

8. **Structure of the programme**
   The programme is structured as follows:

   Module 1
   Day 1: Academia industry collaborations, technology transfer and the role of Technology Transfer Offices
   - To introduce learners to the basic concept of technology transfer.
   - To discuss the functions of a TTO.

- To highlight the inputs required to establish a TTO, expected outputs of a TTO, and the importance of technology transfer for socio-economic development.
- To engage learners on collaborations with the private sector for research, innovation, and development purposes.

Day 2: Intellectual property and the negotiation of research contracts, intellectual property audit.
- To explain the fundamental concepts of intellectual property and intellectual property rights.
- To provide learners with the basic skills to understand, review and negotiate intellectual property clauses in research contracts.
- To discuss the basic steps of undertaking an audit of a university's intellectual assets.

Day 3: Technology Transfer and commercialisation, financing options and support for the incubation of innovative companies.
- To give an overview of the technology transfer process.
- To discuss options for technology commercialisation.
- To discuss financing options and support for the incubation of innovative companies.

Day 4: Dissemination of research outcomes, developing and maintaining toolkits for a TTO.
- To discuss strategies for disseminating research outcomes to different stakeholders.
- To explain and guide learners in developing toolkits for a TTO.

9. Type of learning assessment.
- Formative – case studies during some of the presentations.
- Summative – a quiz with multiple choice questions to be taken at the end of the training.

10. Mechanism to assess audience satisfaction.
- Completion of an evaluation questionnaire at the end of the module.

11. Resource Persons
The training would be delivered by subject matter experts from the University of Ghana.

12. Deliverables: Certificate of Participation, Training Report

13. Budget: USD4,000

PROGRAMME OUTLINE

**ESTABLISHMENT AND OPERATIONALISATION OF A
TECHNOLOGY TRANSFER OFFICE AT NAZI BONI UNIVERSITY**

Day 1 – Monday, 23rd January 2023 Facilitator – Amma Appah		
1. Academia industry collaborations, technology transfer and the role of Technology Transfer Offices (TTOs)		
8.30am – 8.40am	Self-introduction	
8.40am – 8.50am	Welcome Remarks	Professor Joseph Teye Director of Research, ORID, UG
8.50am – 9.00am	Remarks	Dr. Moussa Ouedraogo Nazi Boni University
9.000 am – 10.00am	**Presentation 1** Technology transfer and the role of University Technology Transfer Offices (TTOs)	Diana A. Owusu Antwi Snr. Research Development Officer
10.00am – 11.00am	**Presentation 2** **Establishing a TTO** Inputs and outputs, determining a business model for the TTO.	Diana A. Owusu Antwi Snr. Research Development Officer
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 3** Fostering and managing academia industry collaborations	Mammie Hutchful Nortey Snr. Research Development Officer
12.20pm – 1.20pm	**Presentation 4** Identifying, promoting, and mapping university research and innovations to industry and other stakeholders	Mammie Hutchful Nortey Snr. Research Development Officer
1.20pm	**Lunch**	
Day 2 – Tuesday, 24th January 2023 Facilitator – Maana Ampa – Sowa		
2 - Intellectual property and the negotiation of research contracts		
8.40am – 9.00am	**Recap of Day 1 discussions**	Amma Appah Research Development Officer
9.00am – 10.00am	**Presentation 5** Introduction to Intellectual Property and Intellectual Property Rights	Diana A. Owusu Antwi Snr. Research Development Officer
10.00am – 11.00am	**Presentation 6** Understanding, reviewing, and negotiating research contracts	Selasie Agamah & Grace Martey Research Development Officers
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 7:** **Case studies:** Understanding, reviewing, and negotiating research contracts	Selasie Agamah & Grace Martey Research Development Officers
12.20pm – 1.20pm	**Presentation 8 -** Undertaking an Intellectual Property Audit	Diana A. Owusu Antwi Snr. Research Development Officer
1.20pm	Lunch break	

Day 3 – Wednesday, 25th January 2023 Facilitator – Amma Appah		
3: Technology Transfer, commercialisation options and support for the incubation of innovative companies		
8.40am – 9.00am	**Recap of Day 2 discussions**	Maana Ampa - Sowah Research Development Officer
9.00 am – 10.00am	**Presentation 9** Technology Transfer Process	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer
10.00am – 11.00m	**Presentation 10** Commercialisation Options	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 11** Financing options and incubation of innovative companies	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer
12.20pm – 1.20pm	**Presentation 12** Identifying and highlighting success stories	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer
1.20pm	**Lunch**	
Day 4 – Thursday, 26th January 2023 Facilitator – Mrs. Maana Ampa – Sowa		
Day 4:		
8.40am – 9.00am	**Recap of Day 3 discussions**	Amma Appah Research Development Officer
9.00am – 10.00am	**Presentation 13** Disseminating research outcomes to different stakeholders	Daniel Anafo Research Development Office
10.00 – 11.00am	**Presentation 14** Planning, developing, and organising sensitisation programmes for faculty and students	Amma Appah Research Development Officers
11.00am – 11.20am	**Comfort Break**	
11.20am – 11.50pm	**Presentation 15a** Developing tool kits for academia industry partnerships	Yvonne Boatemaa- Yeboah Snr. Administrative Assistant, ORID, UG
11.50am – 12.20pm	**Presentation 15b** Developing tool kits for the management of intellectual property and technology transfer	Yvonne Boatemaa- Yeboah Snr. Administrative Assistant, ORID, UG
12.20pm – 1.00pm	Lunch	
1.00pm – 1.20pm	**Presentation 16a** Online quiz	Learners
1.20pm – 1.40pm	**Presentation 16b:** Discussion of quiz	Diana A. Owusu Antwi Mammie Hutchful Nortey Learners
1.40 pm – 2.00pm	Learners share their learning experiences	
2.00pm – 2.20pm	Evaluation of training	Learners
2.30 pm – 2.45pm	Closing	Professor Joseph Teye Director, Research

APPENDIX 5 – ASSESSEMENT OF TRAINING MODULE

The organisers and resource persons engaged the learners for feedback on the training programme. This report summarises the learners' assessment of the training programme.

1. **Overall impression of the training programme**
   The underlisted summarises the responses from learners:
   - The training was very useful.
   - The presentations were very easy to understand.
   - The case studies and examples enhanced understanding of the subject.
   - The time allocated to the presentations and discussions was sufficient.

2. **Assessment of the level of satisfaction on the indicators below:**
   a) The relevance of the training materials/information to their training needs
   b) Instructors' knowledge of the subject matter
   c) Presentation quality of instructors
   d) The overall quality of the training workshop
   e) Training facilities

   To this, two (2) learners, presenting 66.7% of the population indicated they were **satisfied,** while a learner representing 33% of the population responded he was **very satisfied.** The responses are presented in figure 1.
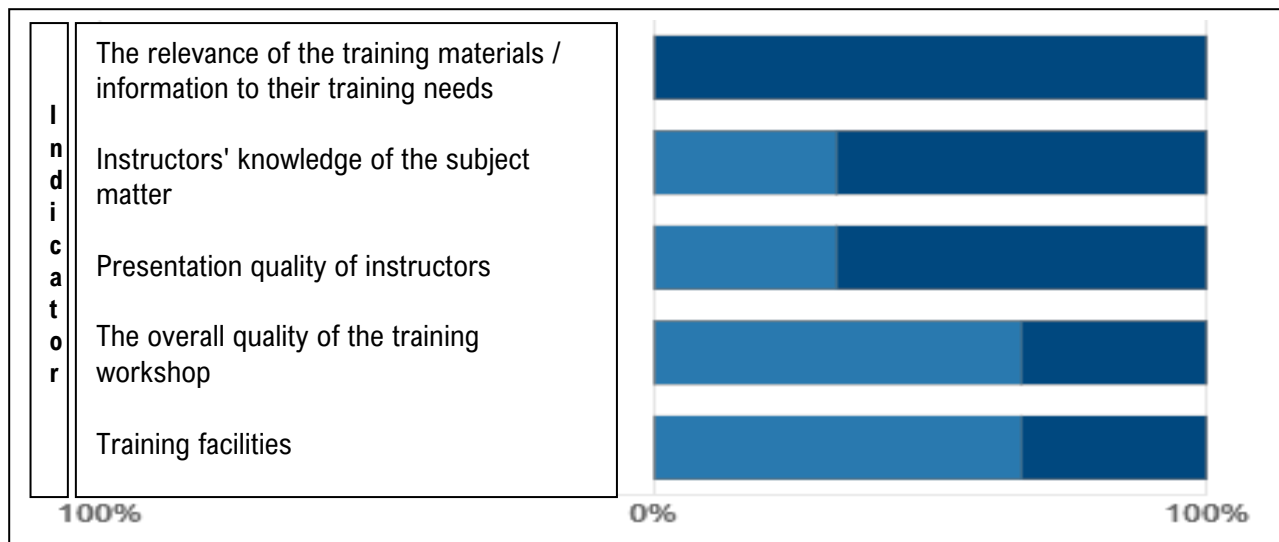

Figure 1: Level of satisfaction

3. **Assessment of the level of knowledge**

Learners were assessed on their level of knowledge prior to and after the training programme. The assessment was categorised according to the structure of the programme as presented in the programme outline. The responses are provided in Table 1.

Table 1 - Assessment of level of knowledge of subject matter prior to and after the training						
Description	**Level of knowledge prior to the training**			**Level of knowledge after the training**		
Academia industry collaborations, technology transfer and the role of technology transfer offices	Very low	Moderate	Very low	High	High	High
Intellectual property and the negotiation of research contracts, intellectual property audit	Very low	Low	Very low	High	High	High
Technology transfer and commercialization, financing options and support for the incubation of innovative companies	Very low	Moderate	Very low	High	High	High
Dissemination of research outcomes, developing and maintaining toolkits for a Technology Transfer Office	Very low	Low	Low	High	High	High

4. Assessment on the applicability of knowledge gained

Table 2 summarises the learners' responses on the application of the knowledge gained on the job.

Table 2 - Assessment on the applicability of knowledge gained			
Description	**Responses**		
Apply the knowledge gained to support academia industry collaborations and technology transfer in your university.	Yes	Yes	Yes
Contribute to the development of toolkits for the management of academia industry partnerships, intellectual property, and technology transfer in your organisation	Yes	Yes	Yes
To support the technology transfer and commercialization process in your university	Yes	Yes	Yes
To support the technology transfer and commercialization process in your university	Yes	Yes	Yes
Assist researchers to disseminate research outcomes to different stakeholders	Yes	Yes	Yes
Review and negotiate research contracts and agreements	Yes	Yes	Yes
Identify financing options and support for the incubation of innovative companies in your institution	Yes	Already doing this	Yes

5. Assessment of other matters

- The learners indicated they were satisfied with their accommodation and enjoyed the Ghanaian dishes.

- All three learners indicated they would recommend the training programme to other colleagues and/or institutions. Below are some of the reasons given for this response.
    a) "Good welcome, very good explanation".
    b) "Impeccable welcome, clear explanation, clear slides, friendly atmosphere, visit of the structures''.
    c) "The organizing team, the trainers, the translators have all the skills for this type of training".

- **Below are responses to what the learners' liked most about the training.**
    a) "I really enjoyed the presentations, and the ways to answer the questions".
    b) "A lot of information with clarity".
    c) "This training was very interactive and exciting".

- **The underlisted are responses to what they liked least about the training.**
    a) "Lack of man as trainer".
    b) "The notepad had few sheets".

- **How could the training be further improved?**
    a) "Add more images in some presentations".
    b) "Slides in multiple languages".

- **How would you rate the pre training preparation procedures, services provided and turnaround time.**
    a) "Satisfied".
    b) "Satisfied".
    c) "Very satisfied".

RAPPORT DE FORMATION

MISE EN PLACE D'UN BUREAU DE TRANSFERT DE

TECHNOLOGIE A L'UNIVERSITE NAZI BONI, BURKINA FASO

ORGANISÉ PAR

LES ÉQUIPES CHARGÉES DU TRANSFERT DE TECHNOLOGIE, DES SERVICES DE PROPRIÉTÉ INTELLECTUELLE ET DU DÉVELOPPEMENT DES CAPACITÉS DE L'OFFICE DE LA RECHERCHE, DE L'INNOVATION ET DU DÉVELOPPEMENT

UNIVERSITÉ DU GHANA

JUILLET 2023

Table des matières

1. CONTEXTE

En novembre 2022, le Bureau de la recherche, de l'innovation et du développement (ORID) de l'Université du Ghana (UG) a reçu une demande du directeur du Centre d'excellence africain en innovations biotechnologiques pour l'élimination des maladies vectorielles (CEA/ITECH-MTV), situé à l'Université Nazi Boni (UNB), au Burkina Faso, de l'Université Nazi Boni (UNB), au Burkina Faso, de visiter l'unité de transfert de technologie et de services de propriété intellectuelle (TTIPS) de l'UG, dans le but de créer un bureau de transfert de technologie (TTO) à l'UNB, au profit des étudiants du CEA/ITECH -MTV. Le CEA /ITECH-MTV cherche à faire partie d'un réseau d'institutions leaders dans les domaines de l'innovation et de la recherche en biotechnologies de la santé.

L'équipe TTIPS et l'équipe de développement des capacités (CaD) ont ensuite discuté avec l'équipe CEA/ITECH-MTV afin de mieux comprendre leur demande. Suite à cela, une analyse des besoins a été entreprise et un questionnaire de cadrage a été administré pour recueillir des informations sur les structures existantes de gestion de la propriété intellectuelle et du transfert de technologie à l'UNB, ainsi que sur les lacunes dans les compétences nécessaires pour établir et gérer un TTO. Les résultats de l'exercice de cadrage et de l'analyse des besoins et les questions soulevées par les discussions avec l'équipe de l'UNB ont servi de base à l'élaboration d'un module de formation pour le CEA/ ITECH-MTV. L'équipe TTIP, en collaboration avec l'équipe CaD, a proposé un programme de formation de quatre jours pour trois fonctionnaires de la CEA / ITECH-MTV du 23rd au 26th janvier 2023 dans la salle de conférence de l'ORID.

Voir l'annexe 1 - Rapport sur l'exercice de cadrage et l'analyse de l'écart des besoins

2. OBJECTIF D'APPRENTISSAGE ET RÉSULTATS

L'objectif du module était de doter les apprenants des connaissances et des compétences nécessaires à la mise en place et au fonctionnement d'un TTO à l'UNB.

A la fin de la formation, les apprenants ont acquis les connaissances nécessaires pour :

- Négocier et gérer les contrats de recherche.
- Élaborer et mener des programmes visant à mieux faire connaître et comprendre les partenariats entre l'université et l'industrie, la propriété intellectuelle et le transfert de technologie.
- Comprendre les différentes formes de droits de propriété intellectuelle et leurs applications.
- Identifier les projets (de recherche) innovants ayant un potentiel commercial, les répertorier et les promouvoir auprès des partenaires.
- Faciliter la protection des résultats de la recherche.
- Commercialiser les résultats de la recherche et gérer un portefeuille de propriété intellectuelle.
- Mobiliser des financements et des aides pour l'incubation d'entreprises innovantes.
- Favoriser les collaborations avec l'industrie et d'autres parties prenantes pour faire progresser la recherche, l'innovation et le développement.

Veuillez vous référer à l'annexe 2 pour le schéma du programme de formation.

3. PROFIL DES PARTICIPANTS

Vous trouverez ci-dessous les coordonnées des participants.

- M. Moussa Ouedraogo ; Directeur - Hub d'incubation, CEA/ITECH-MTV
- M. Halidou Bamogo ; chef du département de chimie
- M. Silvain Ouedraogo, chargé du suivi et de l'évaluation, CEA/TECH-MTV

4. PROFIL DES PERSONNES RESSOURCES

La formation a été dispensée par des experts en la matière de l'ORID. Vous trouverez ci-dessous une brève description des personnes ressources et des sessions animées. **L'annexe 3 présente le profil des personnes ressources**.

N°	NOM	DESIGNATION	TITRE DE LA PRÉSENTATION
1.	Diana A. Owusu Antwi	Agent principal de développement de la recherche	a) Le transfert de technologie et le rôle des TTO universitaires. b) Établissement d'un TTO. c) Introduction à la propriété intellectuelle et aux droits de propriété intellectuelle. d) Entreprendre un audit de la propriété intellectuelle. e) Le processus de transfert de technologie. f) Options de commercialisation des technologies.
2.	Mammie Hutchful Nortey	Agent principal de développement de la recherche	a) Favoriser et gérer les collaborations entre le monde universitaire et l'industrie. b) Identifier, promouvoir et cartographier la recherche universitaire et les innovations pour l'industrie et les autres parties prenantes. c) Options de financement et incubation d'entreprises innovantes. d) Identifier et mettre en valeur les réussites.
3.	Selasie Agamah et Grace Martey	Agents de développement de la recherche	a) Comprendre, examiner et négocier les contrats de recherche.
4.	Daniel Anafo	Responsable du développement de la recherche	a) Diffusion des résultats de la recherche auprès des différentes parties prenantes.
5.	Amma Afumwaa Appah	Responsable du développement de la recherche	a) Planifier, développer et organiser des programmes de sensibilisation pour le corps enseignant et les étudiants.
6.	Yvonne Boatemaa - Yeboah	Personnel administratif supérieur	a) Développer des kits d'outils pour les partenariats entre l'université et l'industrie. b) Développement de kits d'outils pour la gestion de la propriété intellectuelle et du transfert de technologie.

5. LES ACTIVITÉS DE FORMATION

Les activités de formation comprenaient des présentations, des études de cas, des discussions, des démonstrations et un quiz d'évaluation à la fin de la formation. Quatre thèmes ont été abordés chaque jour. Les présentations ont été faites en anglais et traduites en français avec l'aide d'un traducteur professionnel.

6. LE CONTENU DE LA FORMATION

6.1 Transfert de technologie et rôle des bureaux universitaires de transfert de technologie

La présentation a donné un aperçu du transfert de technologie et a éclairé les participants sur les avantages du transfert de technologie pour la société. Elle a également mis en évidence l'évolution des missions de la plupart des universités, qui sont passées du rôle traditionnel d'enseignement et de recherche à une troisième mission - la sensibilisation, l'engagement ou l'impact - ainsi que les mesures mises en place par les universités pour soutenir cette troisième mission. En outre, il a expliqué le rôle de soutien des BTT dans la facilitation du transfert de technologie universitaire pour résoudre les problèmes de l'industrie et de la société et a exposé les fonctions des BTT dans quatre domaines principaux : a) la création et le maintien de partenariats ; b) l'amélioration de la qualité de l'enseignement et de la recherche ; c) l'amélioration de la qualité de l'enseignement et de la recherche.

entre le monde universitaire et l'industrie ; b) la protection et la gestion de la propriété intellectuelle ; c) la facilitation et la gestion du transfert et de la commercialisation des technologies, et d) la promotion de l'esprit d'entreprise.

6.2 Création d'un bureau universitaire de transfert de technologie

Cette présentation a permis aux apprenants d'acquérir des connaissances sur les éléments clés de l'établissement d'un BTT, la détermination d'un modèle d'entreprise pour le BTT et les résultats attendus du BTT. L'établissement d'un BTT nécessite des éléments et des ressources appropriés pour générer des résultats et créer un impact. La mission de l'université, un ou plusieurs objectifs pour le BTT, le budget et les outils (par exemple, le personnel, la politique de propriété intellectuelle, les lignes directrices, les accords types, etc. Un modèle d'entreprise approprié a également été reconnu comme essentiel pour définir la principale orientation stratégique du BTT. Les indicateurs qualitatifs et quantitatifs permettant de mesurer les performances du BTT ont également été expliqués. Il s'agit notamment du nombre de divulgations d'inventions, du nombre de demandes de brevets, du nombre de brevets délivrés, du nombre de licences exécutées, du nombre de start-ups, du nombre d'emplois créés et de l'impact sur la société.

6.3 Favoriser et gérer les collaborations entre le monde universitaire et l'industrie

Cette présentation a mis en lumière les collaborations entre les universités et l'industrie, a présenté aux apprenants les étapes de base pour établir des collaborations saines et la manière de gérer ces partenariats pour un bénéfice mutuel. Il a été fait mention de la nécessité d'identifier les principales parties prenantes d'une collaboration en fonction de l'objectif de cette dernière. Les étapes pour établir des collaborations entre le monde universitaire et l'industrie ont été soulignées :

a) Procéder à une évaluation des besoins.
b) Fixer des objectifs clairs pour le partenariat.
c) Définir les rôles et les règles d'engagement.
d) Convenir des coûts (le cas échéant).
e) Mettre en place un cadre et une procédure contractuels appropriés (par exemple, protocole d'accord, accord de non-divulgation, suivi et évaluation, compétences non techniques), afin de guider et de gérer le partenariat.

Le présentateur a également expliqué les avantages de la collaboration pour les parties et les tiers, et en a souligné quelques-uns :

a) Augmentation du financement de l'institution universitaire.
b) Croissance économique et développement.
c) Impact.

Des études de cas ont été présentées sur certaines collaborations entre l'université et les entreprises, qui ont été facilitées par l'équipe TTIPS, et sur les résultats de ces collaborations.

6.4 Identifier, promouvoir et cartographier la recherche et les innovations universitaires auprès de l'industrie et d'autres parties prenantes

Le transfert des résultats de la recherche et des innovations vers des bénéficiaires clés est un indicateur majeur de l'impact des universités au sein de leurs communautés et de leur contribution au développement national/mondial. Cette présentation a décrit les voies à suivre pour y parvenir en utilisant une approche ciblée qui s'appuie sur la compréhension des principales parties prenantes de l'université. Les apprenants ont acquis des connaissances sur la manière d'identifier, de promouvoir et de faire correspondre la recherche et les innovations d'une université à l'industrie et aux autres parties prenantes concernées. Ils ont compris l'importance d'avoir une matrice pour aider à identifier

les parties prenantes, soit en.. :

a) Secteur (par exemple, public, privé, bénévole, communal).
b) Fonction (par exemple, utilisateur, prestataire de services, régulateur, propriétaire foncier, décideur).
c) Géographie (par exemple, logement dans la circonscription postale, zone à risque d'inondation).

d) Normes socio-économiques (revenu, sexe, âge, durée de vie dans le quartier).

Il a également été fait mention de la nécessité d'impliquer les parties prenantes par le biais d'une évaluation des besoins.

Une cartographie des parties prenantes et une mise en correspondance sont ensuite entreprises sur la base des intérêts et de l'influence des parties prenantes identifiées afin de promouvoir la concentration et d'accroître l'impact. La présentation a également abordé les canaux de promotion de la recherche et de l'innovation, avec des études de cas sur l'Université du Ghana.

Jour 2

La deuxième journée a commencé par un récapitulatif des activités de la veille. Les apprenants ont également donné leur avis sur le contenu de la formation et le mode de prestation, reconnaissant que le contenu était conforme aux activités de leur projet et facile à comprendre, et qu'ils appréciaient la méthodologie de la formation.

6.5. Introduction à la propriété intellectuelle et aux droits de propriété intellectuelle.

La présentation introduit les apprenants au concept de base de la propriété intellectuelle et des droits de propriété intellectuelle. La personne ressource a établi une distinction entre la propriété intellectuelle et les droits de propriété intellectuelle, a expliqué les principales caractéristiques des droits de propriété intellectuelle, ainsi que les deux principales catégories de droits de propriété intellectuelle. La présentation a expliqué les différentes formes de propriété intellectuelle, les conditions de protection, y compris le processus de demande, le droit de propriété intellectuelle associé et la période de protection. Les avantages des droits de propriété intellectuelle pour le créateur, l'institution et l'économie ont également été expliqués. Cette présentation comprenait des études de cas visant à tester la capacité des apprenants à identifier la propriété intellectuelle dans une œuvre créée, le droit de propriété intellectuelle et la violation de la propriété intellectuelle. Les apprenants ont également eu l'occasion de partager des cas d'atteinte à la propriété intellectuelle enregistrés au Burkina Faso.

6.6 Comprendre, réviser et négocier les contrats

Cette session a présenté aux participants les composantes d'un contrat, les types de contrats, le modèle de contrat de l'université et quelques conseils de négociation. La présentation visait à donner aux apprenants des connaissances sur les contrats, l'importance de comprendre un document contractuel avant de le signer, ce qu'il faut négocier et comment le faire. Les apprenants ont été informés des procédures impliquées dans l'examen et la négociation des contrats, dans le but de.. :

   a) Veiller à l'atténuation des risques et à la conformité.
   b) Respecter les politiques et les règlements de l'institution.
   c) Protéger les intérêts du chercheur principal et de l'institution.

La présentation a mis l'accent sur les points suivants

   a) La nécessité de mettre en place des politiques et des lignes directrices liées à la recherche pour soutenir le processus d'examen et de négociation des bourses.
   b) L'importance d'établir un pouvoir de signature pour les subventions et les contrats.
   c) la nécessité de disposer de processus et de procédures opérationnels rationalisés, normalisés et documentés, ainsi que d'outils permettant d'assurer l'harmonisation des procédures ; et
   d) La nécessité de mettre en place des systèmes qui garantissent l'équité, réduisent la subjectivité et favorisent la transparence des processus.

L'étude de cas a permis aux apprenants de mieux apprécier le processus de passation des marchés, ce

qui les aidera à développer leurs propres modèles institutionnels. Ils ont découvert les composantes d'un contrat et le processus d'examen des contrats à l'université et ont été guidés sur la manière d'identifier les domaines de risques potentiels. Ainsi, l'étude de cas a permis aux participants de mettre en pratique le concept de contrat, de comprendre le processus contractuel du point de vue des parties contractantes et d'identifier les différents types de contrats à mettre en place.

dans différents scénarios. Les participants ont également été exposés à la structure et aux opérations de l'équipe des services pré- et post-attribution de l'ORID, qui fonctionne selon la séquence des processus de pré-attribution, d'attribution et de post-attribution. Les participants ont également eu l'occasion d'explorer différents types de contrats et d'accords tels que le transfert de matériel, le transfert d'équipement et les accords de non-divulgation.

6.7 Transfert de technologie Processus

Cette présentation a expliqué les options de commercialisation de la propriété intellectuelle ou de la technologie, les processus impliqués, l'approche de l'UG en matière de transfert de technologie et les systèmes en place pour promouvoir et soutenir le transfert de technologie à l'UG. La présentation a expliqué les deux principaux types de transfert de technologie (vertical et horizontal) ; les moyens de transférer les technologies (par exemple, les publications, les stages, l'échange ou le partage de connaissances, les partenariats entre l'université et l'industrie). Les participants ont parcouru les différentes étapes du processus de transfert de technologie et ont été guidés sur le rôle joué par les chercheurs,l e TTO, d'autres unités au sein de l'institution et des tiers tout au long du processus, ainsi que sur les systèmes nécessaires pour soutenir le processus, en utilisant l'exemple de l'UG.

Troisième jour

La troisième journée a commencé par un résumé des enseignements tirés de la journée précédente. Les participants ont également demandé des éclaircissements sur quelques questions.

6.8 Commercialisation des technologies

La présentation a décrit la commercialisation des technologies et les options de commercialisation de la propriété intellectuelle ou de la technologie. Elle a expliqué les options de commercialisation selon trois axes :

a) Approche "do it yourself" (c'est-à-dire création de startups, financement par capital-risque).
b) Le faire avec d'autres (licence, coentreprise, fusion).
c) Laisser faire les autres (c'est-à-dire l'affectation).

La présentation a mis l'accent sur la nécessité de stipuler clairement dans la politique institutionnelle en matière de propriété intellectuelle l'attribution des bénéfices tirés de la commercialisation. En outre, la présentation a expliqué certains des défis posés par la commercialisation, tels que le niveau de préparation de la technologie, le manque de financement et d'autres ressources pour mettre le produit sur le marché, et la non-viabilité de la technologie. Elle a mis en évidence le rôle des droits de propriété intellectuelle dans la facilitation de l'accès au financement et à d'autres formes de soutien pour aider à mettre une technologie sur le marché.

6.9 Entreprendre un audit de la propriété intellectuelle

Cette présentation a informé les participants sur l'audit de la propriété intellectuelle et devrait leur permettre d'identifier et d'évaluer les actifs potentiels de propriété intellectuelle dans leur organisation, les risques et les opportunités associés, ainsi que les politiques, les accords et les procédures liés à la propriété intellectuelle. Le présentateur a expliqué quelques-unes des raisons pour lesquelles un audit de la propriété intellectuelle doit être réalisé, à savoir

a) Déterminer la propriété des actifs de la propriété intellectuelle.
b) Identifier la propriété intellectuelle non utilisée ou sous-utilisée afin d'éclairer la prise de décision sur l'utilisation,
c) Identifier la propriété intellectuelle fondamentale pour une institution et prendre des décisions de licence en conséquence.
d) Évaluer les risques commerciaux, financiers et juridiques liés à la propriété intellectuelle de l'institution.

portefeuille.

e) Réduire les coûts en prenant des décisions sur la base d'une propriété intellectuelle périmée.

f) Permettre la mise en œuvre des meilleures pratiques de gestion des actifs de propriété intellectuelle.

La présentation a également expliqué les types d'audit de la propriété intellectuelle (c'est-à-dire à but limité, axé sur les événements et à but général) et les étapes de la réalisation de l'audit (c'est-à-dire la définition de l'objectif de l'audit, la collecte d'informations sur la manière dont les actifs intellectuels sont liés aux stratégies de l'institution, l'élaboration d'un plan d'audit, l'évaluation de l'adéquation des dispositions des accords relatifs à la propriété intellectuelle, l'élaboration d'un plan de protection de la propriété intellectuelle, etc. Les coûts et les avantages associés à la protection de la propriété intellectuelle et la nécessité d'exploiter stratégiquement les droits de propriété intellectuelle pour soutenir la croissance des institutions ont été soulignés.

6.10 Options de financement, Incubation d'entreprises innovantes

Cette présentation a abordé le financement de la création d'entreprise, les possibilités d'explorer des sources de financement alternatives pour les entreprises innovantes, l'incubation de nouvelles entreprises et les étapes impliquées. La personne ressource a expliqué les besoins de financement des nouvelles entreprises à :

a) Relever les défis en matière de flux de trésorerie.
b) Pour les investissements en capital.
c) Pour le développement de produits.

La présentation a également expliqué comment les besoins de financement pouvaient être satisfaits grâce à diverses options de financement. La personne ressource a également mis en lumière quelques exemples de réussite au sein du UG Business School Hub (UGBS Nest). Une personne incubée a partagé son expérience sur la façon dont le programme d'incubation de l'UGBS Nest a soutenu la création de sa start-up.

6.11 Identifier et mettre en valeur les réussites Stories

Cette présentation a fourni des informations sur la mise en évidence des réussites du TTO et la présentation de ces réussites aux différentes parties prenantes. Les facteurs clés à prendre en compte pour mettre en valeur les réussites sont les suivants :

a) Préparation du contenu (un contenu clair, bref et stratégique avec un objectif défini (c'est-à-dire les personnes, le lieu et le processus/produit).
b) Un public cible.
c) Moyen de communication (bulletins d'information, sites web, médias sociaux, consultations informelles).

Le présentateur a expliqué qu'une bonne histoire de réussite communiquait un accomplissement vers la réalisation d'un objectif organisationnel, présentait les résultats de la collaboration, de la transparence et de l'optimisation des ressources, et démontrait les efforts déployés pour créer un impact.

Des exemples de réussite dans le domaine de l'enseignement supérieur ont été présentés.

Jour 4

6.12 Diffusion des résultats de la recherche auprès des différentes parties prenantes

Cette présentation s'est concentrée sur les stratégies de diffusion des résultats de la recherche auprès des différentes parties prenantes afin de maximiser les bénéfices de la recherche. Les stratégies de diffusion prennent en compte la nature de la recherche, les objectifs, le public cible, les outils, les risques potentiels, les avantages et les attentes à satisfaire. Le présentateur a expliqué les stratégies permettant d'assurer une diffusion réussie des résultats de la recherche, notamment la nécessité de.. :

a) Impliquer les parties prenantes dès les premières étapes de la recherche afin de s'assurer que les données produites sont fondées, pertinentes, accessibles et utiles.

b) Diffuser les résultats de la recherche de manière claire et concise à un groupe ciblé.
c) Élaborer des calendriers spécifiques pour la diffusion.
d) Identifier les ressources nécessaires à la diffusion.

e)   Déterminer la fréquence de diffusion.

Certains risques potentiels liés à la diffusion, tels que les interprétations erronées, les déformations, les erreurs de communication, l'exagération des résultats et les critiques, ont été expliqués. Les participants ont été encouragés à diffuser efficacement les résultats de la recherche, car la diffusion permet de faire connaître les forces et les capacités de recherche d'une institution ; elle favorise la prise de décision éclairée et le transfert de connaissances, contribue à susciter d'autres discussions, une collaboration et de nouvelles idées ; elle permet de mobiliser des fonds pour la recherche, améliorant ainsi l'image de l'institution auprès du public.

6.13 Planification, développement et organisation de programmes de sensibilisation pour les enseignants et les étudiants

La présentation a fourni aux apprenants les informations et les compétences nécessaires pour planifier et organiser des activités de sensibilisation aux activités du BTT, à la propriété intellectuelle et au transfert de technologie. Le présentateur a expliqué les activités et les ressources nécessaires pour planifier, développer et organiser des programmes de sensibilisation. Les participants ont été informés des différents types d'activités de renforcement des capacités, de la nécessité d'identifier un groupe cible, de procéder à une évaluation des besoins, d'identifier les compétences et les ressources nécessaires au programme, d'un moyen d'évaluer si l'objectif du programme a été atteint, ainsi que d'un moyen d'évaluer la satisfaction des participants.

6.14 Développement de kits d'outils pour la gestion des partenariats entre l'université et l'industrie, de la propriété intellectuelle et du transfert de technologie

Cette présentation a expliqué et guidé les participants dans l'élaboration de boîtes à outils pour un TTO. Elle a fourni un guide étape par étape et des conseils sur les outils nécessaires à la conduite et à la gestion des partenariats entre le monde universitaire et l'industrie. Les principaux outils identifiés sont les suivants

a)   Analyse des parties prenantes (pour faciliter l'engagement entre le monde universitaire et l'industrie).
b)   Définir l'étendue de la collaboration, les obligations des parties, les résultats attendus et les étapes.
c)   Accords contractuels.

La personne ressource a ensuite expliqué les outils nécessaires à la gestion de la propriété intellectuelle et du transfert de technologie. Le présentateur a indiqué que lors de l'élaboration de ces outils, il fallait tenir compte des politiques et des exigences des organismes de financement (le cas échéant).

Les apprenants ont également été initiés à certaines des boîtes à outils utilisées à l'Université du Ghana, par exemple la politique de propriété intellectuelle, les formulaires de divulgation de la propriété intellectuelle et les modèles d'accords.

Les présentations sont accessibles via NAZI BONI PRESENTATIONS _ PDF _ SHARE

Des photos des sessions sont disponibles sur les sites https://photos.app.goo.gl/PuLTh6MHGjFy9mKx9 et https://photos.app.goo.gl/C41aLwzMRFaKRbTj8.

7. ÉVALUATION DU MODULE DE FORMATION

Les apprenants ont participé à un quiz à la fin du module pour vérifier leurs connaissances et leur compréhension des sujets présentés. Le quiz a été administré à l'aide d'Aha slides, une application de quiz en ligne.

Voir l'annexe 4 - Questions du quiz

Les apprenants ont également partagé leurs expériences d'apprentissage et fourni un retour d'information sur le programme de formation.

Voir l'annexe 5 - Évaluation du module de formation

8. AUTRES ACTIVITÉS

L'équipe de l'UNB a également eu l'occasion de s'entretenir avec le directeur du département de chimie de l'université et a visité un laboratoire du département. Elle a également rencontré des responsables du Centre ouest-africain de biologie cellulaire des infections pathogènes (WACCBIP), ainsi que le directeur de l'Institut de recherche sur la science, la technologie et la politique d'innovation du Conseil de la recherche scientifique et industrielle, et a visité le centre d'hébergement de l'UGBS.

9. CLÔTURE DE L'ATELIER

Mme Cynthia Adu, greffière adjointe à l'ORID, a exprimé sa gratitude à l'UNB, au nom du vice-chancelier chargé de la recherche, de l'innovation et du développement, pour avoir choisi l'université comme lieu d'acquisition des connaissances nécessaires à la mise en place et au fonctionnement d'un TTO. Elle espère que les connaissances acquises serviront de guide d'apprentissage pour faciliter la mise en place et le fonctionnement du TTO, et lui adresse ses meilleurs vœux à cet égard. Mme Adu a également remercié les équipes TTIP et CaD pour l'organisation réussie du programme.

10. RECOMMANDATIONS

Les formateurs ont recommandé les mesures suivantes pour permettre la mise en place, le fonctionnement et la durabilité du TTO.

a) **L'adhésion des institutions :**
   L'adhésion de la direction de l'UNB a été identifiée comme un facteur majeur dans la mise en place, l'opérationnalisation, la visibilité et le succès du TTO. L'adhésion institutionnelle est essentielle pour fournir un environnement favorable et des ressources permettant au TTO de prospérer et de remplir ses fonctions de manière efficace.

b) **Allocation budgétaire requise pour le TTO :**
   Une dotation budgétaire annuelle est nécessaire pour soutenir les activités du TTO, y compris le financement de la protection et du maintien de la propriété intellectuelle.

c) **Personnel**
   Il est recommandé que l'équipe centrale du TTO soit composée de personnel administratif (gestionnaires et administrateurs de la recherche) et non de personnel académique. Cela devait permettre au personnel académique de se concentrer sur ses responsabilités principales, à savoir l'enseignement et la recherche, tandis que le personnel administratif gérait le TTO.

d) **Développement des capacités**
   Il est nécessaire de développer davantage la capacité du personnel des BTT à gérer les partenariats entre l'université et l'industrie, la propriété intellectuelle et le transfert de technologie. Les membres ont été encouragés à participer aux programmes d'enseignement à distance sur la propriété intellectuelle proposés par l'Organisation mondiale de la propriété intellectuelle (OMPI), à effectuer des visites d'étude dans d'autres BTT afin d'apprécier le fonctionnement de différents BTT et à adhérer à une association de gestionnairesde transfert de technologie (par exemple, l'Association of University Technology Managers - AUTM, qui permet de créer des réseaux, de partager des connaissances, des expériences et des ressources).

e) Développement de boîtes à outils :

La nécessité d'élaborer des boîtes à outils pour le TTO, y compris une procédure opérationnelle standard, une politique de propriété intellectuelle, des lignes directrices et des accords types. Les participants ont été encouragés à visiter le site web de l

les sites web de l'OMPI, qui disposent d'une mine d'informations pour guider les opérations du BTT, ainsi que les sites web d'autres BTT pour guider l'élaboration des boîtes à outils.

f)   Programme de sensibilisation :
Organiser des programmes de sensibilisation (ciblés) pour faire connaître le TTO, les partenariats entre l'université et l'industrie, la propriété intellectuelle et le transfert de technologie aux étudiants et aux chercheurs. Il est possible de faire appel à des personnes ressources externes pour ces programmes dans un premier temps, pendant que l'UNB développe sa capacité à mettre en œuvre ces programmes de manière indépendante. En outre, l'UNB devrait solliciter le soutien technique de l'Office africain de la propriété intellectuelle pour mettre en œuvre les programmes de sensibilisation.

g)   Suivi des progrès :
Il est recommandé que l'UNB partage avec l'UG les progrès réalisés dans la mise en place du TTO et de ses opérations sur une base semestrielle pendant une période de deux ans. Cela permettra à l'équipe de l'UG d'offrir les conseils et le soutien nécessaires à cette entreprise et servira également à mesurer si les résultats escomptés des programmes de formation sont/ont été atteints.

11. CONCLUSION

Nous sommes convaincus que l'UNB appliquera les connaissances acquises lors de la formation et adoptera les recommandations proposées lors de la mise en place, du fonctionnement et de la pérennisation de son TTO.

ANNEXES

1. Annexe 1 - Rapport sur l'exercice de cadrage et l'analyse de l'écart des besoins
2. Annexe 2 - Schéma du programme de formation
3. Annexe 3 - Profil des personnes ressources
4. Annexe 4 - Questions du quiz
5. Annexe 5 - Évaluation du module de formation

ANNEXE 1

RAPPORT SUR UN EXERCICE DE CADRAGE VISANT A EVALUER LES STRUCTURES ET SYSTEMES DE GESTION DE LA PROPRIETE INTELLECTUELLE ET DU TRANSFERT DE TECHNOLOGIE, AINSI QU'UNE ANALYSE DES CARENCES EN MATIERE DE COMPETENCES DE L'EQUIPE DE TRANSFERT DE TECHNOLOGIE DE L'UNIVERSITE NAZI DE BONI

1. Introduction

L'Université Nazi Boni (UNB), située au Burkina Faso, a créé le Centre d'excellence africain en innovations biotechnologiques pour l'élimination des maladies à transmission vectorielle (CEA / ITECH-MTV). Le Centre cherche à faire partie d'un réseau d'institutions leaders dans les domaines de l'innovationet de la recherche en biotechnologies de la santé.

Suite à une demande du CEA / ITECH-MTV à l'Office of Research, Innovation and Development (ORID), University of Ghana, de conduire un atelier de formation pour équiper le CEA / ITECH - MTV avec les compétences pour mettre en place et opérer un Bureau de Transfert de Technologie (TTO), l'équipe d'ORID, a entrepris un exercice pour rassembler des informations sur les structures existantes pour la gestion de la propriété intellectuelle et le transfert de technologie à l'UNB, ainsi que les lacunes dans les compétences nécessaires pour établir et gérer le TTO.

2. Observations de l'exercice de scoping
a) Structures de gestion de la recherche
- Vice-président en charge de la recherche, de la prospective et de la coopération internationale.
- Service de pépinière d'entreprises.

b) Lacunes dans la gestion de la propriété intellectuelle et des innovations, et dans le transfert de technologies
- Pas de structures existantes pour la gestion de la propriété intellectuelle et le transfert de technologie.
- Manque de compétences pour établir et gérer un TTO.

Toutefois, le CEA/ ITECH-MTV envisage une collaboration avec l'Office africain de la propriété intellectuelle (AIPO) pour lui permettre de développer les systèmes nécessaires à la gestion de la propriété intellectuelle et du transfert de technologie.

3. Résultats de l'analyse des déficits de compétences
- L'évaluation des lacunes était basée sur une évaluation des compétences du personnel du BTT par rapport aux compétences nécessaires pour gérer le BTT.
- Ils ont été classés en onze groupes sur une échelle de 1 à 5, comme indiqué ci-dessous :
  - 5 = Haut niveau de compétence - grande expérience dans le domaine de compétence
  - 4 = Niveau de compétence moyennement élevé - bonne expérience dans le domaine de compétence
  - 3 = Niveau de compétence moyen - une certaine expérience dans le domaine concerné
  - 2 = Faible niveau de compétence - peu d'expérience dans le domaine concerné
  - 1 = Pas de niveau de compétence - pas d'expérience dans le domaine de compétence
- 8 des 11 catégories ont été notées 1, ce qui signifie que Nazi Boni n'avait aucun niveau de compétence.
- 3 groupes sur 11 ont reçu la note 2, ce qui signifie que Nazi Boni avait un faible niveau de

compétence.

- Nazi Boni a indiqué un état souhaité de 4, ce qui représente un niveau de compétence modérément élevé pour l'ensemble des 11 catégories.
- Le tableau 1 résume l'état actuel et souhaité des compétences du personnel du TTO.

Tableau 1 : Résultats de l'analyse des déficits de compétences			
Non.	Description des compétences	État actuel	État souhaité
1.	Identification de projets innovants à valeur ajoutée et positionnement par rapport à la concurrence et aux besoins du marché.	1	4
2.	Protection des résultats de la recherche par le dépôt et la conservation des documents suivants les droits de propriété intellectuelle et industrielle.	1	4
3.	Mise en œuvre et gestion de projets de maturation validés ;	1	4
4.	Commercialisation par le transfert vers le monde économique sous la forme de licences et de création de start-up.	1	4
5.	Détection des innovations ayant un potentiel de développement et identification des les besoins du marché.	1	4
6.	Gestion, dans le cadre de la prestation de services, de portefeuilles de droits de propriété intellectuelle.	1	4
7.	Activités de soutien à la négociation de contrats relatifs à la recherche des projets avec des entreprises.	2	4
8.	Activités de sensibilisation du personnel et des étudiants à l'innovation, au transfert et à la propriété intellectuelle.	1	4
9.	Promotion et cartographie de l'offre de recherche et détection des partenaires.	2	4
10.	Suivi, études et cartographie des thèmes de recherche, des marchés (besoins),) et la propriété intellectuelle.	1	4
11.	Gestion des contrats de recherche en partenariat, financement et soutien à l'incubation d'entreprises innovantes.	2	4

4) Besoins de formation identifiés

Sur la base des informations obtenues lors de l'exercice de cadrage, de l'évaluation des besoins et des interactions, l'équipe de l'ORID a identifié les domaines ci-dessous qui seront couverts par le programme de formation :

- L'ensemble des compétences nécessaires à l'établissement et au fonctionnement d'un TTO.
- Connaissances de base en matière de propriété intellectuelle, d'innovation et de transfert de technologie.
- Compétences pour sensibiliser les enseignants et les étudiants à la propriété intellectuelle et au transfert de technologie.
- Capacité à promouvoir et à gérer la collaboration entre les chercheurs et l'industrie.
- Capacité à commercialiser des technologies par l'octroi de licences ou la création de start-ups.
- Orientations pour l'élaboration d'un manuel opérationnel pour le TTO.

Ces éléments ont été discutés avec l'équipe de l'UNB et ont fait l'objet d'un accord, et ont servi de base à l'élaboration de l'ébauche du programme de formation.

Diana Adobea Owusu Antwi est responsable du développement de la recherche au sein de l'équipe chargée du transfert de technologie et des services de propriété intellectuelle au Bureau de la recherche, de l'innovation et du développement (ORID) de l'Université du Ghana.

Dans ses fonctions actuelles, Diana est responsable de la direction d'une équipe chargée de la gestion des partenariats université-industrie, de la propriété intellectuelle et du transfert de technologie. Elle a notamment développé un cadre pour l'opérationnalisation de la propriété intellectuelle et du transfert de technologie au sein de l'ORID. Elle possède une grande expertise dans l'élaboration de politiques, de lignes directrices, d'accords et de procédures opérationnelles normalisées pour la recherche, les partenariats université-industrie, la propriété intellectuelle et le transfert de technologie.

et le transfert de technologie. Elle a également élaboré et mis en œuvre plusieurs programmes de formation et de sensibilisation à la propriété intellectuelle et au transfert de technologie. En outre, elle a facilité certains partenariats entre l'université et le secteur privé, afin de faire progresser la recherche, l'innovation et le développement.

Diana est membre du Comité de la propriété intellectuelle de l'Université du Ghana depuis 2016. Elle est également coprésidente du sous-comité africain du comité de stratégie internationale de l'Association of University Technology Managers (AUTM). Elle est titulaire d'un doctorat en économie et d'une licence en économie, géographie et développement des ressources de l'Université du Ghana. Diana a suivi avec succès le programme de formation continue de l'Académie de l'Organisation mondiale de la propriété intellectuelle (OMPI) pour les formateurs des institutions de formation à la propriété intellectuelle et est un contrôleur certifié de la protection des données. Elle a également effectué des stages de gestion de la recherche à l'Office of Technology Management de l'université d'État de Pennsylvanie (États-Unis), sous les auspices du programme de soutien aux administrateurs universitaires de l'IREX, et aux Research Contracts and Intellectual Property Services de l'université du Cap, dans le cadre du programme de mobilité intra-ACP de l'ARISE.

Diana a la passion de partager ses connaissances et d'inspirer les gens à atteindre un plus grand succès et un plus grand impact. Elle est joignable par courriel à l'adresse suivante : daowusuantwi@ug.edu.gh

Mammie Hutchful Nortey est agent principal de développement de la recherche au sein de l'équipe des services de transfert de technologie et de propriété intellectuelle. Dans son rôle actuel, elle assure la liaison entre l'industrie et les communautés pour accéder aux connaissances, aux compétences techniques et aux solutions du monde universitaire afin de répondre à leurs besoins et à leurs défis. Elle contribue également à l'articulation de la recherche universitaire avec les entrepreneurs et les parties prenantes afin d'aider à identifier les applications commerciales. En outre, Mammie facilite la rédaction de propositions et la collecte de fonds pour le Bureau. Avant d'occuper ce poste, elle a travaillé pour le projet de transport urbain du Ghana en tant que responsable du développement des capacités.

Mammie fait partie de divers comités tels que le Vic Chancellor's One.

L'initiative "Un ordinateur portable pour chaque étudiant", la stratégie de recherche de l'enseignement supérieur, le rapport annuel du greffier, etc.

et du Dairy Research Improvement and Innovation Consortium. Elle est également secrétaire du comité de la propriété intellectuelle de l'université du Ghana.

Elle est titulaire d'une licence en géographie, sciences de l'environnement et missions du Calvin College, Grand Rapids, Michigan (États-Unis) et d'une maîtrise en urbanisme de l'Université d'Akron, Ohio (États-Unis).

Mammie possède d'excellentes compétences en matière de relations interpersonnelles et de communication et est passionnée par l'idée d'avoir un impact important. Elle est joignable à l'adresse suivante : mnhutchful@ug.edu.gh

Selasie Agamah a rejoint l'Université du Ghana en février 2013. Elle est responsable du développement de la recherche et chef de l'équipe des services pré- et post-attribution au Bureau de la recherche, de l'innovation et du développement (ORID). L'équipe des services pré- et post-attribution (PPA) est responsable de la gestion des subventions et des contrats de recherche pour l'université, y compris la mise en place de systèmes visant à atténuer les risques et à assurer la conformité avec les exigences des bailleurs de fonds et les réglementations institutionnelles. En tant que chef de l'équipe PPA, sa principale responsabilité est de superviser l'exécution efficace des fonctions et des activités.

de l'équipe.

Selasie supervise également le portefeuille de fonds internes de l'université ainsi que les projets de mobilité internationale et de partenariat universitaire. Avant de rejoindre l'université, Selasie a travaillé de manière intensive sur un certain nombre de projets de développement financés par des donateurs, dans diverses fonctions de gestion de projet, où elle était responsable de la mise en œuvre et de l'administration du projet.

Elle est titulaire d'une maîtrise en gestion du développement de l'Institut ghanéen de gestion et d'administration publique. Elle peut être contactée à l'adresse suivante : sagamah@ug.edu.gh

Grace Martey est chargée de développement de la recherche au sein de l'équipe "Pre- and Post- Award Services" du Bureau de la recherche, de l'innovation et du développement (ORID). Elle possède une expérience et une formation approfondies en matière d'administration et de gestion de la recherche dans le secteur de l'enseignement supérieur. Elle a occupé plusieurs postes qui lui ont permis d'acquérir une expérience dans le domaine des services pré- et post-attribution, en particulier dans les domaines de l'élaboration des propositions et des soumissions de subventions, de la gestion des contrats et de la gestion et de la conformité post- attribution.

Grace est actuellement coordinatrice des services d'attribution, chargée de coordonner les processus d'attribution de l'université pour les conventions de subvention de recherche attribuées à l'université et délivrées par l'intermédiaire de l'ORID. En tant que

Dans le cadre de ce calendrier, Grace supervise les processus d'examen et de négociation des contrats, la diligence raisonnable et la mise en œuvre de la politique de l'UE en matière d'environnement.

les processus de sous-attribution dans le but ultime de projeter l'Université tout en minimisant les risques institutionnels.

Grace est formée à la gestion des subventions et a participé à un certain nombre de visites d'étude et de bourses de gestion de la recherche, notamment à l'université du Cap, à l'université de Pretoria, à l'université de Cambridge, à l'université du Sussex et, plus récemment, à l'université de Géorgie, aux États-Unis, en tant que boursière dans le cadre du programme de soutien à l'administration universitaire (UASP) de l'IREX. Elle a organisé des formations et des présentations à l'intention de diverses parties prenantes, notamment des chercheurs en début de carrière, des collègues et du personnel d'appui à la recherche au sein de l'université du Ghana et au-delà. Elle est actuellement membre d'un certain nombre d'organismes professionnels, dont SARIMA et NCURA, aux États-Unis.

Grace a d'excellentes capacités de communication, une attitude positive, un bon esprit d'équipe et croit en l'amélioration continue. Elle est passionnée par l'amélioration des processus et la contribution à la stratégie d'information pour améliorer les prestations de l'équipe. Vous pouvez la joindre par courrier électronique à l'adresse suivante : gannan@ug.edu.gh

Amma Appah est chargée de développement de la recherche et responsable de l'équipe de développement des capacités au Bureau de la recherche, de l'innovation et du développement. Elle est responsable de l'élaboration et de la mise en œuvre de programmes de renforcement des capacités pour le personnel, les étudiants et le corps enseignant. Elle a de l'expérience dans la gestion de la recherche, en particulier dans le domaine du renforcement des capacités et de la formation à la mobilité des étudiants. En tant que chef d'équipe, elle a mis au point une formation à la gestion des subventions pour les chercheurs en début de carrière et les étudiants diplômés, une formation à la gestion des subventions pour les directeurs de recherche et le personnel de soutien, et a fourni une formation et un soutien logistique à divers projets pour la mise en œuvre de leurs activités de renforcement des capacités.

Avant de rejoindre l'équipe de développement des capacités, elle était membre de l'équipe des services pré- et post-attribution, responsable de la gestion de divers projets de mobilité internationale et de partenariat universitaire à l'ORID, tels que le programme international de formation post-universitaire TDR, les projets ARISE et TRECCAfrica, et les projets BSU (Building Stronger Universities) Phase II et III. Amma a également travaillé avec l'équipe de publication, de diffusion et de traduction, où elle a fait partie de l'équipe qui a produit les deux premiers rapports de recherche UG.

Elle a eu l'occasion de participer à des formations à la gestion de la recherche et à des visites d'étude. Elle suit actuellement un programme de bourses de gestion de la recherche sous les auspices de l'IREX University Administrators Support Program (UASP) aux États-Unis.

Amma possède d'excellentes compétences en matière de relations interpersonnelles et de communication et est capable de travailler avec divers groupes de personnes. Elle croit en l'excellence de la prestation de services et adopte avant tout une attitude positive. Elle peut être contactée à l'adresse suivante : aaappah@ug.edu.gh

Daniel Kwasi Anafo a rejoint le Bureau de la recherche, de l'innovation et du développement en 2018 en tant que responsable du développement de la recherche et a été un membre à part entière de l'équipe Publication, diffusion et traduction (PDT). L'équipe est chargée de soutenir la recherche du corps professoral en étendant les résultats de leurs recherches au-delà de la communauté scientifique vers le public.

En tant que membre à part entière de la PDT, Daniel a participé activement à la recherche, à la sollicitation, au développement et à la révision d'articles, ainsi qu'à la conception du contenu de la publication de la principale recherche de l'Université de Guérande.

et le rapport annuel de recherche qui met en lumière les activités de recherche en cours et nouvelles des facultés et des unités de l'université. Daniel soutient les activités de diffusion/traduction du corps enseignant et des étudiants de troisième cycle en proposant des approches et des stratégies alternatives qui peuvent être utilisées pour diffuser avec impact. Périodiquement, Daniel et son équipe se mettent en rapport avec l'équipe de développement des capacités pour organiser des programmes de formation sur les meilleures pratiques en matière de diffusion/traduction de la recherche à l'intention du corps enseignant et des étudiants de troisième cycle.

Daniel est titulaire d'une licence en informatique et statistiques de l'université du Ghana et d'une maîtrise en systèmes d'information de gestion de l'Institut ghanéen de gestion et d'administration publique.

Daniel se passionne pour les défis socio-économiques de la société en utilisant des résultats de recherche fondés sur des preuves qui ont un impact sur les moyens de subsistance de la population. Il est joignable à l'adresse suivante : dkanafo@ug.edu.gh

Yvonne Boatemaa-Yeboah est une passionnée de développement qui possède une expérience en matière de recherche et de gestion de programmes. Avant de rejoindre l'université du Ghana, elle a travaillé pour des organisations de développement nationales et internationales. Titulaire d'une maîtrise en études du développement, elle fournit des services de soutien administratif à l'équipe chargée du transfert de technologie et des services de propriété intellectuelle au Bureau de la recherche, de l'innovation et du développement.

Yvonne est joignable sur yboatemaa-yeboah@ug.edu.gh

ANNEXE 4 - QUESTIONS DU QUIZ

1. **L'auteur d'un livre intitulé "Une nouvelle année, un nouveau départ" poursuit le producteur d'un film pour avoir adapté son livre en film sans son autorisation. Identifiez le type de droit de propriété intellectuelle qui a été violé.**
   a) Droit d'auteur
   b) Droit moral
   c) Marque déposée
   d) Secret commercial

   La bonne réponse est a)

2. **Parmi les éléments suivants, lequel/lesquels est/sont un/des objectif(s) de la création d'un bureau de transfert de technologie universitaire ?**
   a) Promouvoir les collaborations de recherche entre les chercheurs de l'université et de l'industrie.
   b) Mobiliser le financement de la recherche auprès de l'industrie.
   c) Transférer les technologies de l'université vers le secteur privé afin de résoudre les problèmes industriels et sociétaux.
   d) Être reconnue comme une université à fort potentiel d'attraction pour les enseignants et les étudiants.

   Les réponses correctes : sont a), b), et c)

3. **Les bureaux de transfert de technologie exercent les activités suivantes, à l'exception de**
   a) Pré-évaluer les divulgations de propriété intellectuelle.
   b) Octroi de droits de propriété intellectuelle
   c) Faciliter l'évaluation des divulgations de propriété intellectuelle.
   d) Soutenir/faciliter la protection de la propriété intellectuelle.

   La bonne réponse est b)

4. **Lequel ou lesquels de ces éléments est/sont à prendre en compte lors de la mise en place d'un bureau de transfert de technologie au sein d'une université ?**
   a) La mission de l'université
   b) Les valeurs fondamentales de l'université
   c) Un objectif du bureau de transfert de technologie
   d) Budget
   e) Mesures de performance
   f) Outils

   Les réponses correctes sont a), c), d) et f).

5) Le type de licence qui permet au donneur de licence de concéder le droit de propriété intellectuelle et d'exploiter également les droits est connu sous le nom de

        a) Licence exclusive
        b) Licence unique
        c) Licence non exclusive
        d) Licence coopérative

La bonne réponse est b)

6) Lors de la rédaction d'un contrat, quels sont les trois premiers éléments clés à prendre en compte pour déterminer le type d'accord ?

        a) Propriété intellectuelle, matériaux utilisés, plan de paiement
        b) Étendue des travaux, personnes/institutions impliquées, modalités de financement
        c) Budgets, droit applicable
        d) Assurance, indemnisation et responsabilité

La bonne réponse est b)

7) Lequel des éléments suivants n'est pas important pour la diffusion de la recherche ?

        a) Sensibilisation
        b) Engagement des parties prenantes
        c) Soutien financier
        d) Mesures de performance

La bonne réponse est d)

8) Quel est le nombre minimum d'étapes nécessaires pour établir un partenariat équitable entre l'université et l'industrie ? Sélectionnez toutes les réponses qui s'appliquent.

        a) S'engager
        b) Fixer des objectifs
        c) Définir les règles d'engagement
        d) Coût et contrat

Les réponses correctes sont a), b), c) et d).

9) Combien de catégories existe-t-il dans le cadre d'analyse des parties prenantes ? Sélectionnez toutes les réponses qui s'appliquent.

        a) Grande influence, grand intérêt
        b) Grande influence, faible intérêt
        c) Peu d'influence, beaucoup d'intérêt
        d) Faible influence, faible intérêt

Les réponses correctes sont a), b), c) et d).

10) En ce qui concerne le financement par fonds propres, quels sont les deux principaux types de financement dont il est question ?

    a) Business angels et capital-risque
    b) Capital-risque et start-ups
    c) Business angels et réseaux

La bonne réponse est a)

11) Indiquez deux caractéristiques d'une bonne histoire de réussite.
    Les apprenants peuvent citer deux des éléments suivants :
    a)   Impact sociétal
    b)   Génère de l'enthousiasme,
    c)   fait preuve de responsabilité et de transparence
    d)   contribue à la réalisation des objectifs institutionnels

ANNEXE DEUX - SCHÉMA DU PROGRAMME DE FORMATION

Organisateurs : L'équipe des services de transfert de technologie et de propriété intellectuelle (TTIPS) en collaboration avec l'équipe de développement des capacités (CaD) du Bureau de la recherche, de l'innovation et du développement (ORID) de l'Université du Ghana.

1. **Public cible :** Personnel chargé du transfert de technologie (TTO), Université de Nazi Boni.

2. **Mode de livraison** : En personne (traducteur requis).

3. **Dates, heure et lieu**
   Dates : Du lundi 23rd au jeudi 26th janvier 2023.
   Le temps :
   - 8.40am to 1.30pm (23rd to 25th January 2023)
   - 8 h 40 à 14 h 40 (26th janvier 2023)

   Lieux :
   - Salle de conférence ORID, bâtiment LECIAD, Université du Ghana
   - Centre d'innovation et d'incubation de l'UGBS, Université du Ghana

4. **Nombre d'apprenants :** Trois (3)

5. **Objectif** : mettre en place et faire fonctionner un bureau de transfert de technologie à l'Université Nazi Boni.

6. **Objectif d'apprentissage :** Fournir au personnel du TTO les connaissances nécessaires à la création et au fonctionnement d'un bureau de transfert de technologie.

7. **Résultats de l'apprentissage**
   À l'issue de la formation, les apprenants sont censés
   a) Être en mesure d'élaborer et de mener des programmes de sensibilisation à la propriété intellectuelle et au transfert de technologie.
   b) Avoir les compétences de base pour négocier les clauses de propriété intellectuelle dans les contrats de recherche.
   c) Comprendre les différentes formes de droits de propriété intellectuelle et leurs applications.
   d) Être capable de faciliter la protection des résultats de la recherche.
   e) Développer la capacité à identifier les projets (de recherche) innovants ayant un potentiel commercial, cartographier et promouvoir ces projets auprès des partenaires.
   f) Disposer des connaissances nécessaires pour soutenir la commercialisation des résultats de la recherche et gérer le portefeuille de propriété intellectuelle.
   g) Être doté des compétences nécessaires pour mobiliser des financements et un soutien pour l'incubation d'entreprises innovantes.
   h) Être capable de favoriser les collaborations avec l'industrie et d'autres parties prenantes afin de faire progresser la recherche, l'innovation et le développement.

8. **Structure du programme**
   Le programme est structuré comme suit :

   Module 1
   Jour 1 : Collaborations entre l'université et l'industrie, transfert de technologie et rôle des bureaux de transfert de technologie
   - Introduire les apprenants au concept de base du transfert de technologie.
   - Discuter des fonctions d'un TTO.

- Mettre en évidence les éléments nécessaires à l'établissement d'un BTT, les résultats attendus d'un BTT et l'importance du transfert de technologie pour le développement socio-économique.
- Engager les apprenants dans des collaborations avec le secteur privé à des fins de recherche, d'innovation et de développement.

Jour 2 : Propriété intellectuelle et négociation des contrats de recherche, audit de la propriété intellectuelle.
- Expliquer les concepts fondamentaux de la propriété intellectuelle et des droits de propriété intellectuelle.
- Fournir aux apprenants les compétences de base pour comprendre, examiner et négocier les clauses de propriété intellectuelle dans les contrats de recherche.
- Discuter des étapes fondamentales de l'audit des actifs intellectuels d'une université.

Jour 3 : Transfert de technologie et commercialisation, options de financement et soutien à l'incubation d'entreprises innovantes.
- Donner un aperçu du processus de transfert de technologie.
- Examiner les possibilités de commercialisation des technologies.
- Discuter des options de financement et du soutien à l'incubation d'entreprises innovantes.

Jour 4 : Diffusion des résultats de la recherche, développement et maintenance des boîtes à outils pour un TTO.
- Discuter des stratégies de diffusion des résultats de la recherche auprès des différentes parties prenantes.
- Expliquer et guider les apprenants dans le développement de boîtes à outils pour un TTO.

9.   Type d'évaluation de l'apprentissage.
- Formative - études de cas lors de certaines présentations.
- Sommative - un quiz avec des questions à choix multiples à faire à la fin de la formation.

10.   Mécanisme d'évaluation de la satisfaction du public.
- Remplir un questionnaire d'évaluation à la fin du module.

11.   Personnes ressources
La formation sera dispensée par des experts en la matière de l'Université du Ghana.

12.   Produits livrables : Certificat de participation, rapport de formation

13.   Budget : 4 000 USD

SCHÉMA DU PROGRAMME

**MISE EN PLACE ET FONCTIONNEMENT D'UN BUREAU DE
TRANSFERT DE TECHNOLOGIE A L'UNIVERSITE NAZIE DE
BONI**

<table>
<tr><td colspan="3">Jour 1 - Lundi 23rd Janvier 2023 Animateur
- Amma Appah</td></tr>
<tr><td colspan="3">1.   Collaborations entre le monde universitaire et l'industrie, transfert de technologie et rôle des bureaux de transfert de technologie (BTT)</td></tr>
<tr><td>8h30 - 8h40 8h40

- 8h50

8.50 - 9.00</td><td>Présentation de soi

Remarques de bienvenue

Remarques</td><td>Professeur Joseph Teye
Directeur de la recherche, ORID,
UG

Dr. Moussa Ouedraogo
Nazi Boni University</td></tr>
<tr><td>9.000 - 10.00</td><td>Présentation 1
Transfert de technologie et rôle des bureaux universitaires de transfert de technologie
(TTO)</td><td>Diana A. Owusu Antwi
Snr. Chargé de développement de la recherche</td></tr>
<tr><td>10h00 - 11h00</td><td>Présentation 2
Établissement d'un TTO
Intrants et extrants, détermination d'une entreprise
pour le TTO.</td><td>Diana A. Owusu Antwi
Snr. Chargé de développement de la recherche</td></tr>
<tr><td>11h00 - 11h20</td><td>Pause confort</td><td></td></tr>
<tr><td>11.20 - 12.20</td><td>Présentation 3
Favoriser et gérer les collaborations entre le monde universitaire et l'industrie</td><td>Mammie Hutchful Nortey
Snr. Chargé de développement de la recherche</td></tr>
<tr><td>12.20 - 13.20</td><td>Présentation 4
Identifier, promouvoir et cartographier la recherche et les innovations universitaires pour
l'industrie et les autres parties prenantes</td><td>Mammie Hutchful Nortey
Snr. Chargé de développement de la recherche</td></tr>
<tr><td>13 h 20</td><td>Déjeuner</td><td></td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3">Jour 2 - Mardi 24th Janvier 2023 Animateur -
Maana Ampa - Sowa</td></tr>
<tr><td colspan="3">2 - Propriété intellectuelle et négociation des contrats de recherche</td></tr>
<tr><td>8.40 - 9.00</td><td>Récapitulatif des discussions de la première journée</td><td>Amma Appah
Responsable du développement de la recherche</td></tr>
<tr><td>9h00 - 10h00</td><td>Présentation 5
Introduction à la propriété intellectuelle et aux droits de propriété intellectuelle</td><td>Diana A. Owusu Antwi
Snr. Chargé de développement de la recherche</td></tr>
<tr><td>10h00 - 11h00</td><td>Présentation 6
Comprendre, examiner et négocier les contrats de recherche</td><td>Selasie Agamah & Grace Martey Chargés de développement de la recherche</td></tr>
<tr><td>11h00 - 11h20</td><td colspan="2" align="center">Pause confort</td></tr>
<tr><td>11.20 - 12.20</td><td>Présentation 7 :
Études de cas :
Comprendre, examiner et négocier les contrats de recherche</td><td>Selasie Agamah & Grace Martey Chargés de développement de la recherche</td></tr>
</table>

12.20 - 13.20	**Présentation 8 -** Entreprendre un audit de la propriété intellectuelle	Diana A. Owusu Antwi Snr. Chargé de développement de la recherche
13 h 20	Pause déjeuner	

	Jour 3 - Mercredi 25th Janvier 2023 **Animateur - Amma Appah**	
3 : Transfert de technologies, options de commercialisation et soutien à l'incubation d'entreprises innovantes		
8.40 - 9.00	**Récapitulatif des discussions de la deuxième journée**	Maana Ampa - Sowah Responsable du développement de la recherche
9h00 - 10h00	**Présentation 9** Processus de transfert de technologie	Mme Diana A. Owusu Antwi Snr. Chargé de développement de la recherche
10h00 - 11h00	**Présentation 10** Options de commercialisation	Mme Diana A. Owusu Antwi Snr. Chargé de développement de la recherche
11h00 - 11h20	Pause confort	
11.20 - 12.20	**Présentation 11** Options de financement et incubation d'entreprises innovantes	Mme Mammie Hutchful Nortey Snr. Chargé de développement de la recherche
12.20 - 13.20	**Présentation 12** Identifier et mettre en valeur les réussites	Mme Mammie Hutchful Nortey Snr. Chargé de développement de la recherche
13 h 20	**Déjeuner**	

	Jour 4 - Jeudi 26th janvier 2023 **Facilitateur - Mme Maana Ampa - Sowa**	
Jour 4 :		
8.40 - 9.00	**Récapitulatif des discussions de la troisième journée**	Amma Appah Responsable du développement de la recherche
9h00 - 10h00	**Présentation 13** Diffusion des résultats de la recherche auprès des différentes parties prenantes	Daniel Anafo Bureau de développement de la recherche
10h00 - 11h00	**Présentation 14** Planifier, développer et organiser des programmes de sensibilisation pour le corps enseignant et les étudiants	Amma Appah Agents de développement de la recherche
11h00 - 11h20	**Pause confort**	
11.20 - 11.50	**Présentation 15a** Développer des kits d'outils pour les partenariats entre l'université et l'industrie	Yvonne Boatemaa- Yeboah Assistant(e) administratif(ve) snr. Assistant administratif, ORID, UG
11.50 - 12.20	**Présentation 15b** Développement de kits d'outils pour la gestion de la propriété intellectuelle et du transfert de technologie	Yvonne Boatemaa- Yeboah Assistant(e) administratif(ve) snr. Assistant administratif, ORID, UG
12.20 - 13.00	Déjeuner	
13 h 00 - 13 h 20	**Présentation 16a** Quiz en ligne	Apprenants
13 h 20 - 13 h 40	**Présentation 16b :** Discussion sur le quiz	Diana A. Owusu Antwi Mammie Hutchful Nortey Learners
13 h 40 - 14 h 00	Les apprenants partagent leurs expériences d'apprentissage	
14 h 00 - 14 h 20	Évaluation de la formation	Apprenants

14 h 30 - 14 h 45	Fermeture	Professeur Joseph Teye Directeur de la recherche

ANNEXE 5 - ÉVALUATION DU MODULE DE FORMATION

Les organisateurs et les personnes ressources ont demandé aux apprenants de donner leur avis sur le programme de formation. Ce rapport résume l'évaluation du programme de formation par les apprenants.

1. **Impression générale du programme de formation**
   La liste ci-dessous résume les réponses des apprenants :
   · La formation a été très utile.
   · Les présentations étaient très faciles à comprendre.
   · Les études de cas et les exemples ont permis de mieux comprendre le sujet.
   · Le temps alloué aux présentations et aux discussions était suffisant.

2. **Évaluation du niveau de satisfaction sur les indicateurs ci-dessous :**
   a) La pertinence des matériels/informations de formation par rapport à leurs besoins de formation
   b) Connaissance du sujet par les instructeurs
   c) Qualité de la présentation des formateurs
   d) La qualité générale de l'atelier de formation
   e) Moyens de formation

A cela, deux (2) apprenants, représentant 66,7% de la population, ont indiqué qu'ils étaient **satisfaits,** tandis qu'un apprenant représentant 33% de la population a répondu qu'il était **très satisfait. Les** réponses sont présentées dans la figure 1.
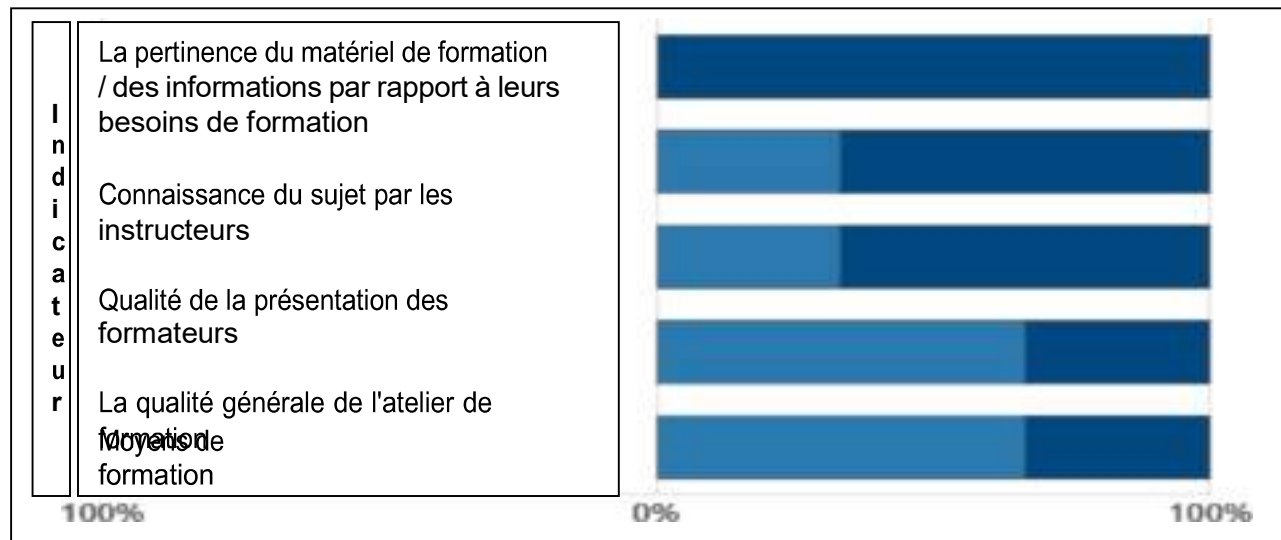

Figure 1 : Niveau de satisfaction

3. **Évaluation du niveau de connaissance**

Les apprenants ont été évalués sur leur niveau de connaissance avant et après le programme de formation. L'évaluation a été classée en fonction de la structure du programme telle qu'elle est

présentée dans les grandes lignes. Les réponses sont présentées dans le tableau 1.

Tableau 1 - Évaluation du niveau de connaissance du sujet avant et après la formation						
Description	**Niveau de connaissance avant le formation**			**Niveau de connaissance après le formation**		
Collaborations entre l'université et l'industrie, transfert de technologie et rôle de l'université et de l'industrie des bureaux de transfert de technologie	Très faible	Modéré	Très faible	Haut	Haut	Haut
La propriété intellectuelle et la la négociation de contrats de recherche, l'audit de la propriété intellectuelle	Très faible	Faible	Très faible	Haut	Haut	Haut
Transfert de technologie et commercialisation, options de financement et soutien à l'incubation d'entreprises innovantes. entreprises	Très faible	Modéré	Très faible	Haut	Haut	Haut
Diffusion des résultats de la recherche, élaboration et mise à jour de boîtes à outils pour un système d'information sur la santé. Bureau de transfert de technologie	Très faible	Faible	Faible	Haut	Haut	Haut

4. Évaluation de l'applicabilité des connaissances acquises

Le tableau 2 résume les réponses des apprenants sur l'application des connaissances acquises sur le lieu de travail.

Tableau 2 - Évaluation de l'applicabilité des connaissances acquises			
Description	**Réponses**		
Appliquer les connaissances acquises pour soutenir les collaborations entre l'université et l'industrie et le transfert de technologie dans votre université.	Oui	Oui	Oui
Contribuer à l'élaboration de boîtes à outils pour la gestion des les partenariats entre l'université et l'industrie, la propriété intellectuelle et le transfert de technologie dans votre organisation	Oui	Oui	Oui
Soutenir le processus de transfert et de commercialisation des technologies dans votre université	Oui	Oui	Oui
Soutenir le processus de transfert et de commercialisation des technologies dans votre université	Oui	Oui	Oui

Aider les chercheurs à diffuser les résultats de la recherche auprès des différentes parties prenantes	Oui	Oui	Oui
Examiner et négocier les contrats et accords de recherche	Oui	Oui	Oui
Identifier les possibilités de financement et de soutien à l'incubation d'entreprises innovantes dans votre institution	Oui	C'est déjà le cas	Oui

5. Évaluation d'autres questions

- Les apprenants ont indiqué qu'ils étaient satisfaits de leur hébergement et qu'ils avaient apprécié les plats ghanéens.

- Les trois apprenants ont indiqué qu'ils recommanderaient le programme de formation à d'autres collègues et/ou institutions. Voici quelques-unes des raisons invoquées pour justifier cette réponse.
  - a) "Bon accueil, très bonne explication.
  - b) "Accueil impeccable, explications claires, diapositives claires, ambiance conviviale, visite des structures''.
  - c) "L'équipe organisatrice, les formateurs, les traducteurs ont toutes les compétences pour ce type de formation".

- **Vous trouverez ci-dessous les réponses à ce que les apprenants ont le plus apprécié dans la formation.**
  - a) "J'ai vraiment apprécié les présentations et les façons de répondre aux questions.
  - b) "Beaucoup d'informations et de clarté".
  - c) "Cette formation était très interactive et passionnante.

- **Les réponses énumérées ci-dessous concernent ce qu'ils ont le moins apprécié dans la formation.**
  - a) "Manque d'hommes comme formateurs".
  - b) "Le bloc-notes comportait peu de feuilles.

- **Comment la formation pourrait-elle être améliorée ?**
  - *a)* "Ajouter plus d'images dans certaines présentations"*.
  - b) "Diapositives en plusieurs langues".

- **Comment évaluez-vous les procédures de préparation à la formation, les services fournis et les délais d'exécution ?**
  - a) "Satisfait".
  - b) "Satisfait".
  - c) "Très satisfait".

TRAINING REPORT

SETTING UP A TECHNOLOGY TRANSFER OFFICE AT NAZI

BONI UNIVERSITY, BURKINA FASO

ORGANISED BY

THE TECHNOLOGY TRANSFER AND INTELLECTUAL PROPERTY SERVICES AND CAPACITY DEVELOPMENT TEAMS OF THE OFFICE OF RESEARCH, INNOVATION AND DEVELOPMENT

UNIVERSITY OF GHANA

JULY 2023

Table of Contents

1. BACKGROUND

In November 2022, the Office of Research, Innovation and Development (ORID), University of Ghana (UG), received a request from the Director of the African Centre of Excellence in Biotechnological Innovations for the Elimination of Vector Borne Diseases (CEA/ITECH-MTV), at the Nazi Boni University (UNB), Burkina Faso, to visit the Technology Transfer and Intellectual Property Services (TTIPS) unit at UG, with the aim of setting up a Technology Transfer Office (TTO) at UNB, for the benefit of CEA/ITECH -MTV students. CEA /ITECH-MTV seeks to be part of a network of leading institutions in the fields of innovation and research in health biotechnologies.

The TTIPS and Capacity Development Team (CaD) subsequently held discussions with the CEA/ITECH-MTV team, to gain a better understanding of their request. Following this, a needs analysis gap was undertaken, and a scoping questionnaire administered to gather information on the existing structures for managing intellectual property and technology transfer at UNB, as well as the gaps in the skills needed to establish and manage a TTO. The findings from the scoping exercise and needs gap analysis and matters arising from discussions with the UNB team informed the development of a training module for CEA/ ITECH-MTV. The TTIPs team in collaboration with the CaD team offered a four-day training programme for three officials of the ECA / ITECH-MTV from 23rd to 26th January 2023 in the ORID Conference room.

Please see Appendix 1 - Report on Scoping Exercise and Needs Gap Analysis

2. LEARNING OBJECTIVE AND OUTCOMES

The objective of the module was to equip learners with the requisite knowledge and skills to set up and operate a TTO at UNB.

At the end of the training, learners were equipped with knowledge to:

- Negotiate and manage research contracts.
- Develop and conduct programmes aimed at raising awareness and understanding of academia industry partnerships, intellectual property, and technology transfer.
- Understand the various forms of intellectual property rights and their applications.
- Identify innovative (research) projects with market potential, map and promote these projects to partners.
- Facilitate the protection of research outputs.
- Commercialise research outputs and manage an intellectual property portfolio.
- Mobilise financing and support for the incubation of innovative companies.
- Foster collaborations with industry and other stakeholders to advance research, innovation, and development.

Kindly refer to Appendix 2 for the Training Programme Outline.

3. PROFILE OF PARTICIPANTS

Below are the details of the participants.

- Mr. Moussa Ouedraogo; Director – Incubation Hub, CEA/ITECH-MTV
- Mr. Halidou Bamogo; Head, Department of Chemistry
- Mr. Silvain Ouedraogo; Monitoring and Evaluation Officer, CEA/TECH-MTV

The training was delivered by subject matter experts from ORID. Below is a brief description of the resource persons and the sessions facilitated. **Please Appendix 3 for the Profile of Resource Persons.**

NO	NAME	DESIGNATION	TITLE OF PRESENTATION
1.	Diana A. Owusu Antwi	Senior Research Development Officer	a) Technology transfer and the role of university TTOs. b) Establishing a TTO. c) Introduction to intellectual property and intellectual property Rights. d) Undertaking an intellectual property audit. e) The technology transfer process. f) Technology commercialisation options.
2.	Mammie Hutchful Nortey	Senior Research Development Officer	a) Fostering and managing academia industry collaborations. b) Identifying, promoting, and mapping university research. and innovations to industry and other stakeholders. c) Financing options and incubation of innovative companies. d) Identifying and highlighting success stories.
3.	Selasie Agamah and Grace Martey	Research Development Officers	a) Understanding, reviewing, and negotiating research contracts.
4.	Daniel Anafo	Research Development Officer	a) Disseminating research outcomes to different stakeholders.
5.	Amma Afumwaa Appah	Research Development Officer	a) Planning, developing, and organising sensitisation programmes for faculty and students.
6.	Yvonne Boatemaa – Yeboah	Senior Administrative Staff	a) Developing tool kits for academia industry partnerships. b) Developing tool kits for the management of intellectual property and technology transfer.

5. TRAINING ACTIVITIES

The training activities comprised presentations, case studies, discussions, demonstration, and an evaluation quiz at the end of the training. Four topics were covered daily. The presentations were made in English and translated to French with the aid of a professional translator.

6. TRAINING CONTENT

6.1 Technology Transfer and the Role of University Technology Transfer Offices

The presentation gave an overview of technology transfer and enlightened participants on the benefits of technology transfer to society. It also highlighted a shift in the missions of most universities from the traditional role of teaching and research to a third mission – outreach, engagement, or impact, as well as the measures (being) put in place by universities to support this third mission. In addition, it explained the supporting role of TTOs in facilitating university technology transfer to solve industry and societal problems and expounded on the functions of TTOs along four main areas; a) creating and maintaining partnerships

between academia and industry; b) protecting and managing intellectual property; c) facilitating and managing technology transfer and commercialisation, and d) promoting entrepreneurship.

6.2 Establishing a University Technology Transfer Office

This presentation equipped learners with knowledge on the key inputs for establishing a TTO, determining a business model for the TTO and the outputs expected of the TTO. Setting up a TTO requires appropriate input and resources to generate output and create impact. The mission of the university, an objective(s) for the TTO, budget and tools (e.g., staff, intellectual property policy, policy guidelines, model agreements, etc.), were identified as inputs critical to the TTO's operation. An appropriate business model was also recognised as essential to forming the main strategic direction for the TTO. The qualitative and quantitative indicators by which the performance of the TTO could be measured were also explained. These included the number of invention disclosures, number of patent applications, number of granted patents, number of licenses executed, number of startups, number of jobs created and impact on society.

6.3 Fostering and Managing Academia - Industry Collaborations

This presentation highlighted academic and industry collaborations, introduced learners to the basic steps to establish healthy collaborations and how to manage these partnerships for mutual benefit. Mention was made of the need to identify the key stakeholders to a collaboration in line with the objective of the collaboration. The steps to establish academia industry collaborations emphasized included:

a) Undertaking a need assessment.
b) Establishing clear goals for the partnership.
c) Setting roles and rules for engagement.
d) Agreeing on costs (where applicable).
e) Putting in place an appropriate contractual framework and procedure (e.g., Memorandum of Understanding, Non-Disclosure Agreement, monitoring and evaluation, soft skills), to guide and manage the partnership.

The presenter also explained the benefits of collaboration to the parties and third parties, and highlighted some benefits as follows:

a) Increased funding to the academic institution.
b) Economic growth and development.
c) Impact.

Case studies were presented on some collaborations between UG and businesses, that had been facilitated by the TTIPS team and the outcomes of these collaborations.

6.4 Identifying, Promoting and Mapping University Research and Innovations to Industry and Other Stakeholders

The transfer of research outcomes and innovations to key beneficiaries is a major indicator of the impact of universities within their communities, and their contribution to national/global development. This presentation outlined pathways to achieving this using a targeted approach that builds on understanding key stakeholders of the university. Learners acquired knowledge on how to identify, promote and match a university's research and innovations to industry and other relevant stakeholders. They understood the importance of having a matrix to help to identify stakeholders, either by:

a) Sector (e.g., public, private, voluntary, communal).
b) Function (e.g., user, service provider, regulator, landowner, decision-maker).
c) Geography (e.g., dwelling within postal district, flood risk area).

d) Socio-economic standards (income, gender, age, length of time living in neighbourhood).

Mention was also made of the need to engage stakeholders through a needs assessment.

A stakeholder mapping and matching is then undertaken based on identified stakeholders' interest and influence to promote focus and increase impact. The presentation also touched on the channels of promoting research and innovation, with case studies on the University of Ghana.

Day 2

Day 2 started off with a re-cap of the previous day's activities. Learners also provided feedback on training contents, and the mode of delivery, acknowledging that the contents were in line with their project activities and were easy to understand and they liked the training methodology.

6.5. Introduction to Intellectual Property and Intellectual Property Rights.

The presentation introduced learners to the basic concept of intellectual property and intellectual property rights. The resource person drew a distinction between intellectual property and intellectual property rights, explained the key characteristics of intellectual property rights, as well as the two main categories of intellectual property rights. The presentation explained the various forms of intellectual property, the requirement for protection including the application process, the associated intellectual property right, and the period of protection. The benefits of intellectual property rights to the creator, institution and economy were also explained. This presentation included case studies that sought to test the ability of learners to identify intellectual property in a work created, intellectual property right, and infringement of intellectual property. Learners also had the opportunity to share cases of intellectual property infringement recorded in Burkina Faso.

6.6 Understanding, Reviewing and Negotiating Contracts

This session introduced participants to the components of a contract, types of contracts, the UG contracting model, and some key negotiating tips. The presentation was aimed at equipping learners with knowledge of contracts, the importance of understanding a contractual document prior to signing off, what to negotiate and how to negotiate. Learners were briefed on the procedures involved in the reviewing and negotiation of contracts, intended to:

a) Ensure risk mitigation and compliance.
b) Adhere to institutional policies and regulations.
c) Protect the interest of the principal investigator and institution.

The presentation highlighted:

a) The need to put in place research-related policies and guidelines to support the award review and negotiation process.
b) The importance of establishing a signing authority for grants and contracts.
c) The need for streamlined, standardised, and documented operating processes and procedures and tools to ensure harmonisation of procedures; and
d) The need for systems that ensure fairness, reduce subjectivity and aids transparency of processes.

The case study helped the learners to get a better appreciation of the contracting process which will help in developing their own institutional models. They were introduced to the components of a contract and the contract review process at UG and guided on how to identify potential areas of risks. Thus, the case study enabled the participants to practicalise the concept of contracts, understand the contracting process from the perspective of the contracting parties, and identify the different types of contracts to be put in place

under different scenarios. Participants were also exposed to the structure and operations of the Pre and Post Awards Services team at ORID, which operates through the sequence of Pre – award, Award and Post Award processes. Participants also had the opportunity to explore various types of contracts and agreements such as material transfer, equipment transfer and non-disclosure agreements.

6.7 Technology Transfer Process

This presentation explained the options for commercialising intellectual property or technology, the processes involved, outlined UG's approach to technology transfer and explained the systems in place to promote and support technology transfer at UG. The presentation explained the two main types of technology transfer (vertical and horizontal); the avenues for transferring technologies (e.g., publications, internships, knowledge exchange or sharing, academia industry partnerships). Participants were taken through the various stages of the technology transfer process, and guided on the role played by researchers, the TTO, other units within the institution and third parties throughout the process, as well as the systems required to support the process, using UG as an example.

Day 3

Day 3 began with a summary of learnings from the previous day. Participants also sought clarification on a few issues.

6.8 Technology Commercialisation

The presentation described technology commercialisation and the options for commercialising intellectual property or technology. It explained the options for commercialisation along three lines:

a) Do it yourself approach (i.e., startup formation, venture financing.
b) Do it with others (i.e., licensing, joint ventureship, merger).
c) Let others do it (i.e., assignment).

The presentation emphasized the need for the allocation of benefits from commercialisation to clearly stipulated in the institutional Intellectual Property Policy. Further, the presentation explained some of the challenges to commercialisation such as the technology readiness level, lack of finance and other resources to put the product on the market, and non-viability of the technology. It highlighted the role of intellectual property rights in facilitating access to funding and other support to help to get a technology onto the market.

6.9 Undertaking an Intellectual Property Audit

This presentation informed participants about an intellectual property audit and is expected to enable them to identify and assess potential intellectual property assets in their organisation, the associated risks, and opportunities; as well as intellectual property-related policies, agreements, and procedures. The presenter explained some of the reasons for conducting an IP audit, i.e.:

a) To determine ownership of intellectual property assets.
b) To identify un-used or under-utilised intellectual property to inform decision making on utilisation,
c) To identify intellectual property fundamental to an institution and make licensing decisions accordingly.
d) To assess the commercial, financial, and legal risks linked to the institution's intellectual property portfolio.
e) To save cost by making decisions on outdated intellectual property.
f) To enable the implementation of the best practices for managing intellectual property assets.

The presentation also explained the types of intellectual property audit (i.e., limited purpose, event driven and general purpose) and the steps to conducting the audit (i.e., establishing a purpose for the audit; gathering information on how intellectual assets relate to the institution's strategies (ies), developing an audit plan; evaluation of the adequacy of provisions in intellectual property related agreements; developing an intellectual property protection plan, etc.). The cost and benefits associated with the pursuit of intellectual property protection and the need to strategically exploit the intellectual property rights to support the growth of the institutions were emphasized.

6.10 Financing Options, Incubation of Innovative Companies

This presentation discussed start up financing, the avenues for exploring alternative funding sources for innovative ventures, the incubation of new businesses, and the stages involved. The resource person explained the funding needs of new ventures to:

a) Address cash flow challenges.
b) For capital investments.
c) For product development.

The presentation also explained how the funding needs could be addressed with various financing options. The resource person additionally highlighted some success stories from the UG Business School Hub (UGBS Nest). An incubatee shared her experience of how the incubation programme at the UGBS Nest had supported the establishment of her start-up.

6.11 Identifying and Highlighting Success Stories

This presentation provided information on highlighting the successes of the TTO and highlighting these successes to various stakeholders. The key factors to be considered in highlighting success stories included:

a) Content preparation (a clear, brief, and strategic content with a defined focus (i.e., people, place, and process/product).
b) A target audience.
c) Medium of communication (e.g., newsletters, websites, social media, informal consultations).

The presenter explained a good success story communicated an achievement towards the realisation of an organisational goal; showcased the outcomes of collaborations, transparency, and value for money; and demonstrated efforts at creating impact.

Illustrations of some success stories on UG were presented.

Day 4

6.12 Disseminating Research Outcomes to Different Stakeholders

This presentation focused on the strategies for disseminating research outcomes to various stakeholders to maximise the benefit of the research. The strategies involved in dissemination consider the nature of the research, the objectives, target audience, tools, potential risks, benefits, and expectations to be met. The presenter explained the strategies to ensure a successful dissemination of research outcomes including the need to:

a) Involve stakeholders in the early stages of the research to ensure evidence produced is grounded, relevant, accessible, and useful.
b) Disseminate research outcomes in a clear and concise manner to a targeted group.
c) Develop specific timelines for dissemination.
d) Identify the resources needed for dissemination.

e) Determine the frequency of dissemination.

Some potential risks that may arise in dissemination, e.g., wrong interpretation, misrepresentation, miscommunication, exaggeration of findings and criticism were explained. Participants were encouraged to effectively disseminate research outcomes as dissemination created awareness of an institution's research strengths and capabilities; promoted informed decision making and knowledge transfer, helped to elicit further discussion, collaboration, and new insights; provided an avenue to mobilise research funding, thereby enhancing the public image of the institution.

6.13 Planning, Developing, and Organizing Sensitization Programmes for Faculty and Students

The presentation provided learners with information and skills to plan and organise activities to raise awareness about the operations of the TTO, intellectual property and technology transfer. The presenter explained the activities and resources required to plan, develop, and organise sensitisation programmes. Participants were informed about the various types of capacity building activities, the need to identify a targeted group, conduct a needs assessment, identify skills and resources needed for the programme, a means of evaluating if the objective of the programme has been achieved, as well as a means of assessing participants' satisfaction.

6.14 Developing Tools Kits for Managing Academia-Industry Partnerships, IP and Technology Transfer

This presentation explained and guided participants in developing toolkits for a TTO. It provided a step-by-step guide and advice on the tools required to conduct and manage academia industry partnerships. The key tools identified included:

a) Stakeholder analysis (to facilitate an engagement between academia and industry).
b) Defining the scope of collaboration, obligation of the parties; deliverables and milestones.
c) Contractual agreements.

The resource person further explained the toolkits needed to manage intellectual property and technology transfer. The presenter indicated that in developing these toolkits, considerations must be given to the policies and requirements of funding agencies (where applicable).

Learners were also introduced to some of the toolkits used at the University of Ghana, e.g., Intellectual Property Policy, Intellectual Property Disclosure Forms, and model agreements.

The presentations are accessible via NAZI BONI PRESENTATIONS _ PDF _ SHARE

Photographs of the sessions are available at https://photos.app.goo.gl/PuLTh6MHGjFy9mKx9 and https://photos.app.goo.gl/C41aLwzMRFaKRbTj8

7. ASSESSEMENT OF THE TRANING MODULE

Learners engaged in a quiz at the end of the module to ascertain their knowledge and understanding of the topics presented. The quiz was administered with the use of Aha slides, an online quiz app.

See Appendix 4 – Quiz Questions

Learners also shared their learning experiences and provided feedback on the training programme.

See Appendix 5 – Assessment of Training Module

8. OTHER ACTIVITIES

The UNB team also had the opportunity to engage with the Head, Department of Chemistry at UG, and visited a laboratory at the department. They also interacted with officials of the West African Centre for Cell Biology of Infections Pathogens (WACCBIP), as well as the Director of the Science, Technology, and Innovation Policy Research Institute of the Council for Scientific and Industrial Research and took a tour of the UGBS Nest.

9. CLOSING OF WORKSHOP

Mrs. Cynthia Adu, a Deputy Registrar at ORID, in giving the closing remarks, expressed gratitude to UNB, on behalf of the Pro Vice Chancellor; Research, Innovation and Development, for choosing UG as the place to acquire knowledge to set up and operate a TTO. She was hopeful the knowledge acquired will serve as a learning guide to aid the establishment and operations of the TTO, and offered best wishes in that regard. Mrs. Adu also thanked the TTIPs and CaD teams for successfully organising the programme.

10. RECOMMENDATIONS

The trainers recommended the underlisted to enable the establishment, operation, and sustainability of the TTO.

a) **Institutional buy-in:**
The buy-in of UNB management was identified as a major factor in the establishment, operationalisation, visibility and success of the TTO. Institutional buy-in is critical to provide an enabling environment and resources for the TTO to thrive and perform its functions efficiently.

b) **Budgetary allocation required for TTO:**
An annual budgetary allocation is needed to support the activities of the TTO including funding for the protection, and maintenance of intellectual property.

c) **Staffing**
It is recommended that the core TTO team be comprised of administrative staff (research managers and administrators) and not academic staff. This was to enable academic staff to focus on their core responsibilities of teaching and research, whilst administrative staff managed the TTO.

d) **Capacity development**
There is a need to further develop the capacity of the TTO staff to manage academia industry partnerships, intellectual property, and technology transfer. Members were encouraged to participate in the Intellectual Property Distance Learning Programmes offered by the World Intellectual Property Organisation (WIPO), embark on study visits to other TTOs to appreciate how different TTOs worked, and to join an association of technology transfer managers (e.g., Association of University Technology Managers – AUTM, as they provided an avenue to network, share knowledge, experience, and resources).

e) **Development of toolkits:**
The need to develop toolkits for the TTO, including a standard operating procedure, intellectual property policy, model guidelines and agreements. Participants were encouraged to visit the

websites of WIPO, which had a wealth of information to guide the operations of the TTO, as well as the website of other TTOs to guide the development of the toolkits.

f) Sensitisation programme:
Organise (targeted) sensitisation programmes to create awareness of the TTO, academia industry partnerships, intellectual property and technology transfer for students and researchers. External resource persons may be used for these programmes at the initial stages whilst UNB builds upon its capacity to deliver these programmes independently. In addition, UNB should seek technical support from African Intellectual Property Office to deliver the sensitisation programmes.

g) Monitoring of progress:
It is recommended that UNB shares with the UG progress made towards the set of the TTO and its operations on a semi- annual basis over a two-year period. This is to enable the UG team to offer advice and support as may be required for that endeavour and will also serve as a means of measuring if the expected outcomes of the training programmes are being/have been met.

11. CONCLUSION

We are optimistic that UNB will apply the knowledge gained from the training and adopt the recommendations proffered in setting up, operating, and sustaining its TTO.

APPENDIXES

1. Appendix 1 – Report on and Scoping Exercise and Needs Gap Analysis
2. Appendix 2 – Training Programme Outline
3. Appendix 3 – Profile of Resource Persons
4. Appendix 4 – Quiz Questions
5. Appendix 5 – Assessment of Training Module

APPENDIX 1

REPORT ON A SCOPING EXERCISE TO ASSESS STRUCTURES AND SYSTEMS FOR MANAGING INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER, AND A NEED GAP ANALSYIS OF SKILLS SET OF THE TECHNOLOGY TRANSFER TEAM AT NAZI BONI UNIVERSITY

1. Introduction

Nazi Boni University (UNB) located in Burkina Faso, has established the African Centre of Excellence in Biotechnological Innovations for the Elimination of Vector-borne Diseases (CEA / ITECH-MTV). The Centre seeks to be part of a network of leading institutions in the fields of innovation and research in health biotechnologies.

Following a request from CEA / ITECH-MTV to the Office of Research, Innovation and Development (ORID), University of Ghana, to conduct a training workshop to equip the CEA / ITECH – MTV with the skills to set up and operate a Technology Transfer Office (TTO), the team at ORID, undertook an exercise to gather information on the existing structures for managing intellectual property and technology transfer at UNB, as well as the gaps in the skills needed to establish and manage the TTO.

2. Observations from Scoping Exercise
  a) Structures for managing research
  - Vice President in charge of Research, Prospective and International Cooperation.
  - Business incubator service.

  b) Gaps in intellectual property and innovations management, and technology transfer
  - No existing structures for the management of intellectual property and technology transfer.
  - Lack of skills set to establish and operate a TTO.

However, CEA/ ITECH-MTV is exploring collaboration with the African Intellectual Property Office (AIPO) to enable it to develop the necessary systems to manage intellectual property and technology transfer.

3. Findings from Skills Gap Analysis
  - The Gap Assessment was based on an evaluation of the skills of the staff in the TTO vis -a vis the skills needed to manage the TTO.
  - This was classified into eleven groups and ranked on a scale of 1 – 5, as interpreted below:
    - 5 = High level of competence - extensive experience in the skill area
    - 4 = Moderately high level of competence - good experience in the skill area
    - 3 = Average level of competence – some experience in the skill area
    - 2 = Low level of competence – little experience in the skill area
    - 1 = No level of competence – no experience in the skill area
  - 8 out of 11 categories were marked as 1, meaning Nazi Boni had no level of competence.
  - 3 out of 11 groups were marked as 2 meaning Nazi Boni had a low level of competence.
  - Nazi Boni indicated a desired state of 4, representing a moderately high level of competence for all the 11 categories.
  - Table 1 summarises the current and desired state of the skills set of the TTO staff.

No.	Description Of Skills	Current State	Desired State
	Table 1: Findings from Skills Gap Analysis		
1.	Identification of innovative projects with added value and positioning in relation to the competition and market needs.	1	4
2.	Protection of research results through the filing and maintenance of intellectual and industrial property rights.	1	4
3.	Implementation and management of validated maturation projects;	1	4
4.	Commercialisation through transfer to the economic world in the form of licensing and start-up creation.	1	4
5.	Detection of innovations with development potential and identification of market needs.	1	4
6.	Management, within the framework of service provision, of intellectual property rights portfolios.	1	4
7.	Support activities for the negotiation of contracts relating to research projects with companies.	2	4
8.	Awareness-raising activities for staff and students on innovation, transfer, and intellectual property.	1	4
9.	Promotion and mapping of the research offer and detection of partners.	2	4
10.	Monitoring, studies and mapping of research topics, markets (needs, players, regulations, etc.) and intellectual property.	1	4
11.	Management of partnership research contracts, financing, and support for the incubation of innovative companies.	2	4

4) Identified Training Needs

Based on information obtained through the scoping exercise, needs assessment as well as interactions, the ORID team identified the areas below to be covered by the training programme:

- The skills set to establish and operate a TTO.
- Basic knowledge on intellectual property, innovation, and technology transfer.
- Skills to create awareness of IP and technology transfer for faculty and students.
- Ability to promote and manage research collaboration between researchers and industry.
- Ability to commercialise technologies through licensing or start up creation.
- Guidance to develop an operational manual for the TTO.

This was discussed with the UNB team and agreed upon, and formed the basis for development of the Training Programme Outline.

Diana Adobea Owusu Antwi is a Senior Research Development Officer assigned to the Technology Transfer and Intellectual Property Services Team, at the Office of Research, Innovation and Development (ORID), University of Ghana.

In her current role, Diana is responsible for leading a team in the management of university industry partnerships, intellectual property, and technology transfer. Her achievements include the development of a framework for the operationalization of the intellectual property and technology transfer arm of ORID. She has rich expertise in the development of policy, guidelines, agreements and standard operating procedures for research, university industry partnerships, intellectual property, and technology transfer. She has also developed and delivered several training and sensitisation programmes on intellectual property and technology transfer. Additionally, she has facilitated some partnerships between the University and the private sector, to help to advance research, innovation, and development.

Diana has served as a member of the University of Ghana Intellectual Property Committee since 2016. She is also a Co-chair of the African Sub – Committee of the International Strategy Committee, Association of University Technology Managers (AUTM). She holds an MPhil in Economics degree, and a Bachelor of Arts degree in Economics with Geography and Resource Development, from the University of Ghana. Diana has successfully completed the World Intellectual Property Organisation (WIPO) Academy Continuous Training Program for Trainers of IP Training Institutions and is a Certified Data Protection Supervisor. She has also undertaken research management fellowships in the Office of Technology Management, Pennsylvania State University, USA, under the auspices of the IREX University Administrators Support Program, and the Research Contracts and Intellectual Property Services of the University of Cape Town under the ARISE Intra ACP Mobility Programme.

Diana has a passion to share knowledge and inspire people to attain greater success and impact. She can be reached by email at daowusuantwi@ug.edu.gh

Mammie Hutchful Nortey is a Senior Research Development Officer assigned to the Technology Transfer and Intellectual Property Services Team. In her current role, she serves as a liaison between industry and communities to access knowledge, technical skills, and solutions from academia to address their needs and challenges. She also assists in the articulation of university research to entrepreneurs and stakeholders to help identify market applications. Additionally, Mammie facilitates proposal writing and fundraising for the Office. Prior to this role, she worked with the Ghana Urban Transport Project as the Capacity Development Officer.

Mammie serves on various committees such as the Vic Chancellor's One Student One Laptop initiative, UG Research Strategy, the Registrar's Annual

Seminar and the Dairy Research Improvement and Innovation Consortium. She is also the secretary to the University of Ghana Intellectual Property Committee.

She holds a Bachelor of Science Degree in Geography, Environmental Science and Missions from Calvin College, Grand Rapids, Michigan -USA and a Master of Arts Degree in Urban Planning from the University of Akron, Ohio –USA.

Mammie has great interpersonal and communication skills and is passionate about making great impact. She can be reached via mnhutchful@ug.edu.gh

Selasie Agamah joined University of Ghana in February 2013 and is a Research Development Officer and the Team Leader for the Pre-and Post-Award Services team at the Office of Research, Innovation and Development (ORID). The Pre-and Post-Award (PPA) services team is responsible for research grants and contracts management for the University including putting in place systems to mitigate risk and ensure compliance with funder requirements and institutional regulations. In her role as team leader of the PPA team, her primary responsibility is to provide oversight for the efficient delivery of the functions and activities of the team.

Selasie also provides oversight for the University's internal funds portfolio as well as the International Mobility and Academic Partnership projects. Before joining the University, Selasie worked extensively with a number of donor funded development projects in various project management capacities where she was responsible for project implementation and administration.
She holds a Master's Degree in Development Management from the Ghana Institute for Management and Public Administration. She can be reached on sagamah@ug.edu.gh

Grace Martey is a Research Development Officer in the Pre- and Post-Award Services team of the Office of Research, Innovation and Development (ORID). She has extensive experience and training in research administration and management in the higher education sector and has held several roles culminating in her experience in pre- and post-award, specifically, in the areas of proposal development and grant submissions, contracts management and post award management and compliance.

Grace is currently the Award Services Coordinator responsible for coordinating the University's award processes for research grant agreements awarded to the University and delivered through ORID. In this current schedule, Grace oversees the contract review and negotiation processes, due diligence, and

sub-awarding processes with the ultimate aim of projecting the University whilst minimizing institutional risks.

Grace has training in grantsmanship and has participated in a number of research management study visits and fellowships including visits to University of Cape Town, University of Pretoria, University of Cambridge, University of Sussex and recently, University of Georgia, USA as a fellow under the IREX University Administration Support Program (UASP). She has delivered trainings and presentations to various stakeholders including early career researchers, colleagues and research support staff within the University of Ghana and beyond. She is currently a member of a number of professional bodies including SARIMA and NCURA, USA.

Grace has great communication skills, positive attitude, a good team player and believes in continuous improvement. She is passionate about process improvement and contributing to inform strategy to enhance team delivery. She can be reached via email at: gannan@ug.edu.gh

Amma Appah is a Research Development Officer in charge of the Capacity Development Team at the Office of Research, Innovation and Development, responsible for development and implementation of capacity-building programmes for staff, students and faculty. She has experience in research management specifically in capacity building and student mobility training. Over the period as a team leader, she has developed grantsmanship training for early-career researchers and graduate students, grant management training for research managers and support staff and has provided training and logistical support to various projects to implement their capacity building activities.

Prior to joining the Capacity Development team, she was a member of the Pre- and Post-Award Services team responsible for the management of various International Mobility and Academic Partnership projects at the ORID such as TDR International Post-Graduate Training Scheme, ARISE and TRECCAfrica Projects, Building Stronger Universities (BSU) Phase II and III Projects. Amma also worked with the Publication, Dissemination and Translation team where she was part of a team that produced the first two UG Research Reports.

She has had the opportunity to participate in research management training and study visits. She is currently undertaking a research management fellowship program under the auspices of the IREX University Administrators Support Program (UASP) in the USA.

Amma has great interpersonal and communication skills and is able to work with diverse groups of people. she believes in excellent service delivery and above all has a positive attitude. She can be reached at aaappah@ug.edu.gh

Daniel Kwasi Anafo joined the Office of Research, Innovation and Development in 2018 as a Research Development Officer and has been an integral member of the Publication, Dissemination and Translation (PDT) team. The team is charged with the mandate of supporting the research of faculty by extending their research outcomes beyond the scientific community to the public.

As an integral member of PDT, Daniel has been actively involved in scouting, soliciting, developing, and reviewing articles; and conceptualising the design of the contents for the publication of UG's foremost research magazine 'Inspiring UG' and the Annual Research Report which highlights ongoing and novel research activities of faculty and units in the University. Daniel supports the dissemination/translation activities of faculty and postgraduate students by proffering alternative approaches and strategies that can be used to disseminate for impact. Periodically, Daniel and his team liaise with the Capacity Development team to organise training programmes on best practices on research dissemination/translation for faculty and postgraduate students.

Daniel holds a Bachelor of Science degree in Computer Science and Statistics from the University of Ghana and a Master of Science degree in Management Information Systems from the Ghana Institute of Management and Public Administration.

Daniel is passionate about addressing the socio-economic challenges of the society using evidence-based research findings that impacts the livelihoods of the people. He can be reach on dkanafo@ug.edu.gh

Yvonne Boatemaa-Yeboah is a development enthusiast with experience in research and programme management. Prior to joining the University of Ghana, she worked with both national and international development organisations. With an MPhil in Development Studies, she provides administrative support services to the Technology Transfer and Intellectual Property Services Team at the Office of Research innovation and Development.

Yvonne can be reached on yboatemaa-yeboah@ug.edu.gh

APPENDIX 4 – QUIZ QUESTIONS

1. **The author of a book titled "A new year, a new beginning" sues the producer of a movie for adapting her book into a movie without her permission. Identify the type of intellectual property right that has been infringed.**
   a) Copyright
   b) Moral right
   c) Trademark
   d) Trade secret

   The correct answer is a)

2. **Which of the following is / are an objective(s) for establishing a university technology transfer office?**
   a) To promote research collaborations between researchers at the university and industry.
   b) To mobilise research funding from industry.
   c) To transfer technologies from the university to the private sector to solve industry and societal problems.
   d) To be recognised as a university with great potential for attracting faculty and students.

   The correct answers: are a), b), and c)

3. **Technology transfer offices perform the following activities, except**
   a) Pre – assess intellectual property disclosures.
   b) Grant intellectual property rights
   c) Facilitate evaluation of intellectual property disclosures.
   d) Support/facilitate the protection of intellectual property.

   The correct answer is b)

4. **Which of these is / are inputs that must be considered in establishing a university technology transfer office.**
   a) The mission of the university
   b) The core values of the university
   c) An objective of the technology transfer office
   d) Budget
   e) Performance metrics
   f) Tools

   The correct answers are a), c), d) and f)

5) The kind of license that allows the licensor to license the intellectual property right and to also exploit the rights is known as

        a) Exclusive license
        b) Sole license
        c) Non – exclusive license
        d) Co-operative license

The correct answer is b)

6) In drafting a contract, what are the initial three key things you should consider in determining the type of agreement?

        a) Intellectual property, materials involved, payment plan
        b) Scope of work, person/institutions involved, funding arrangements
        c) Budgets, governing law
        d) Insurance, indemnity and liability

The correct answer is b)

7) Which of the following is not an importance of research dissemination?

        a) Awareness creation
        b) Stakeholder engagement
        c) Funding support
        d) Performance metrics

The correct answer is d)

8) What are the minimum number of steps required to establish an equitable academia industry partnership? Select all that apply.

        a) Engage
        b) Set goals
        c) Define rules of engagement
        d) Cost and contract

The correct answers are a), b), c) and d)

9) How many categories exist in the stakeholder analysis framework? Select all that apply.

        a) High Influence, High Interest
        b) High Influence, Low Interest
        c) Low Influence, High Interest
        d) Low influence, Low Interest

The correct answers are a), b), c) and d)

10) Concerning equity funding, what are the two main types discussed?

    a) Business angels and venture capital
    b) Venture capital and start ups
    c) Business angels and networks

The correct answer is a)

11) Indicate any two features of a good success story.
Learners may list any 2 of the following:
a) Societal Impact
b) Generates excitement,
c) demonstrates accountability and transparency
d) contributes to attainment of institutional goals

APPENDIX TWO – TRAINING PROGRAMME OUTLINE

Organisers: Technology Transfer and Intellectual Property Services (TTIPS) team in collaboration with the Capacity Development (CaD) team, of the Office of Research, Innovation and Development (ORID), University of Ghana

1. **Target Audience:** Technology Transfer (TTO) staff, Nazi Boni University.

2. **Mode of delivery**: In person (translator required).

3. **Dates, time, and venue**
   Dates: Monday, 23rd to Thursday, 26th January 2023.
   Time:
   - 8.40am to 1.30pm (23rd to 25th January 2023)
   - 8.40am to 2.40pm (26th January 2023)
   Venues:
   - ORID Conference Room, LECIAD Building, University of Ghana
   - UGBS Innovation and Incubation Hub, University of Ghana

4. **Number of Learners:** Three (3)

5. **Goal:** To set up and operate a technology transfer office at Nazi Boni University.

6. **Learning Objective:** To equip TTO staff with the knowledge to establish and operate a technology transfer office.

7. **Learning Outcomes**
At the end of the training, it is expected that learners would:
   a) Be able to develop and conduct programmes aimed at raising awareness of intellectual property, and technology transfer.
   b) Be equipped with the basic skills to negotiate intellectual property clauses in research contracts.
   c) Understand the various forms of intellectual property rights and their applications.
   d) Be able to facilitate the protection of research results.
   e) Develop capacity to identify innovative (research) projects with market potential, map and promote these projects to partners.
   f) Be provided with the knowledge to support the commercialisation of research results and manage intellectual property portfolio.
   g) Be equipped with the skills to mobilise financing and support for the incubation of innovative companies.
   h) Be able to foster collaborations with industry and other stakeholders to advance research, innovation, and development.

8. **Structure of the programme**
   The programme is structured as follows:

   Module 1
   Day 1: Academia industry collaborations, technology transfer and the role of Technology Transfer Offices
   - To introduce learners to the basic concept of technology transfer.
   - To discuss the functions of a TTO.

- To highlight the inputs required to establish a TTO, expected outputs of a TTO, and the importance of technology transfer for socio-economic development.
- To engage learners on collaborations with the private sector for research, innovation, and development purposes.

Day 2: Intellectual property and the negotiation of research contracts, intellectual property audit.
- To explain the fundamental concepts of intellectual property and intellectual property rights.
- To provide learners with the basic skills to understand, review and negotiate intellectual property clauses in research contracts.
- To discuss the basic steps of undertaking an audit of a university's intellectual assets.

Day 3: Technology Transfer and commercialisation, financing options and support for the incubation of innovative companies.
- To give an overview of the technology transfer process.
- To discuss options for technology commercialisation.
- To discuss financing options and support for the incubation of innovative companies.

Day 4: Dissemination of research outcomes, developing and maintaining toolkits for a TTO.
- To discuss strategies for disseminating research outcomes to different stakeholders.
- To explain and guide learners in developing toolkits for a TTO.

9. Type of learning assessment.
- Formative – case studies during some of the presentations.
- Summative – a quiz with multiple choice questions to be taken at the end of the training.

10. Mechanism to assess audience satisfaction.
- Completion of an evaluation questionnaire at the end of the module.

11. Resource Persons
The training would be delivered by subject matter experts from the University of Ghana.

12. Deliverables: Certificate of Participation, Training Report

13. Budget: USD4,000

PROGRAMME OUTLINE

**ESTABLISHMENT AND OPERATIONALISATION OF A
TECHNOLOGY TRANSFER OFFICE AT NAZI BONI UNIVERSITY**

Day 1 – Monday, 23rd January 2023 Facilitator – Amma Appah		
1. Academia industry collaborations, technology transfer and the role of Technology Transfer Offices (TTOs)		
8.30am – 8.40am	Self-introduction	
8.40am – 8.50am	Welcome Remarks	Professor Joseph Teye Director of Research, ORID, UG
8.50am – 9.00am	Remarks	Dr. Moussa Ouedraogo Nazi Boni University
9.000 am – 10.00am	**Presentation 1** Technology transfer and the role of University Technology Transfer Offices (TTOs)	Diana A. Owusu Antwi Snr. Research Development Officer
10.00am – 11.00am	**Presentation 2** **Establishing a TTO** Inputs and outputs, determining a business model for the TTO.	Diana A. Owusu Antwi Snr. Research Development Officer
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 3** Fostering and managing academia industry collaborations	Mammie Hutchful Nortey Snr. Research Development Officer
12.20pm – 1.20pm	**Presentation 4** Identifying, promoting, and mapping university research and innovations to industry and other stakeholders	Mammie Hutchful Nortey Snr. Research Development Officer
1.20pm	**Lunch**	
Day 2 – Tuesday, 24th January 2023 Facilitator – Maana Ampa – Sowa		
2 - Intellectual property and the negotiation of research contracts		
8.40am – 9.00am	**Recap of Day 1 discussions**	Amma Appah Research Development Officer
9.00am – 10.00am	**Presentation 5** Introduction to Intellectual Property and Intellectual Property Rights	Diana A. Owusu Antwi Snr. Research Development Officer
10.00am – 11.00am	**Presentation 6** Understanding, reviewing, and negotiating research contracts	Selasie Agamah & Grace Martey Research Development Officers
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 7:** **Case studies:** Understanding, reviewing, and negotiating research contracts	Selasie Agamah & Grace Martey Research Development Officers
12.20pm – 1.20pm	**Presentation 8 -** Undertaking an Intellectual Property Audit	Diana A. Owusu Antwi Snr. Research Development Officer
1.20pm	Lunch break	

Day 3 – Wednesday, 25th January 2023
Facilitator – Amma Appah

3: Technology Transfer, commercialisation options and support for the incubation of innovative companies		
8.40am – 9.00am	**Recap of Day 2 discussions**	Maana Ampa - Sowah Research Development Officer
9.00 am – 10.00am	**Presentation 9** Technology Transfer Process	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer
10.00am – 11.00m	**Presentation 10** Commercialisation Options	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 11** Financing options and incubation of innovative companies	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer
12.20pm – 1.20pm	**Presentation 12** Identifying and highlighting success stories	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer
1.20pm	**Lunch**	

Day 4 – Thursday, 26th January 2023
Facilitator – Mrs. Maana Ampa – Sowa

Day 4:		
8.40am – 9.00am	**Recap of Day 3 discussions**	Amma Appah Research Development Officer
9.00am – 10.00am	**Presentation 13** Disseminating research outcomes to different stakeholders	Daniel Anafo Research Development Office
10.00 – 11.00am	**Presentation 14** Planning, developing, and organising sensitisation programmes for faculty and students	Amma Appah Research Development Officers
11.00am – 11.20am	**Comfort Break**	
11.20am – 11.50pm	**Presentation 15a** Developing tool kits for academia industry partnerships	Yvonne Boatemaa- Yeboah Snr. Administrative Assistant, ORID, UG
11.50am – 12.20pm	**Presentation 15b** Developing tool kits for the management of intellectual property and technology transfer	Yvonne Boatemaa- Yeboah Snr. Administrative Assistant, ORID, UG
12.20pm – 1.00pm	Lunch	
1.00pm – 1.20pm	**Presentation 16a** Online quiz	Learners
1.20pm – 1.40pm	**Presentation 16b:** Discussion of quiz	Diana A. Owusu Antwi Mammie Hutchful Nortey Learners
1.40 pm – 2.00pm	Learners share their learning experiences	
2.00pm – 2.20pm	Evaluation of training	Learners
2.30 pm – 2.45pm	Closing	Professor Joseph Teye Director, Research

APPENDIX 5 – ASSESSEMENT OF TRAINING MODULE

The organisers and resource persons engaged the learners for feedback on the training programme. This report summarises the learners' assessment of the training programme.

1. **Overall impression of the training programme**
   The underlisted summarises the responses from learners:
   - The training was very useful.
   - The presentations were very easy to understand.
   - The case studies and examples enhanced understanding of the subject.
   - The time allocated to the presentations and discussions was sufficient.

2. **Assessment of the level of satisfaction on the indicators below:**
   a) The relevance of the training materials/information to their training needs
   b) Instructors' knowledge of the subject matter
   c) Presentation quality of instructors
   d) The overall quality of the training workshop
   e) Training facilities

   To this, two (2) learners, presenting 66.7% of the population indicated they were **satisfied,** while a learner representing 33% of the population responded he was **very satisfied.** The responses are presented in figure 1.
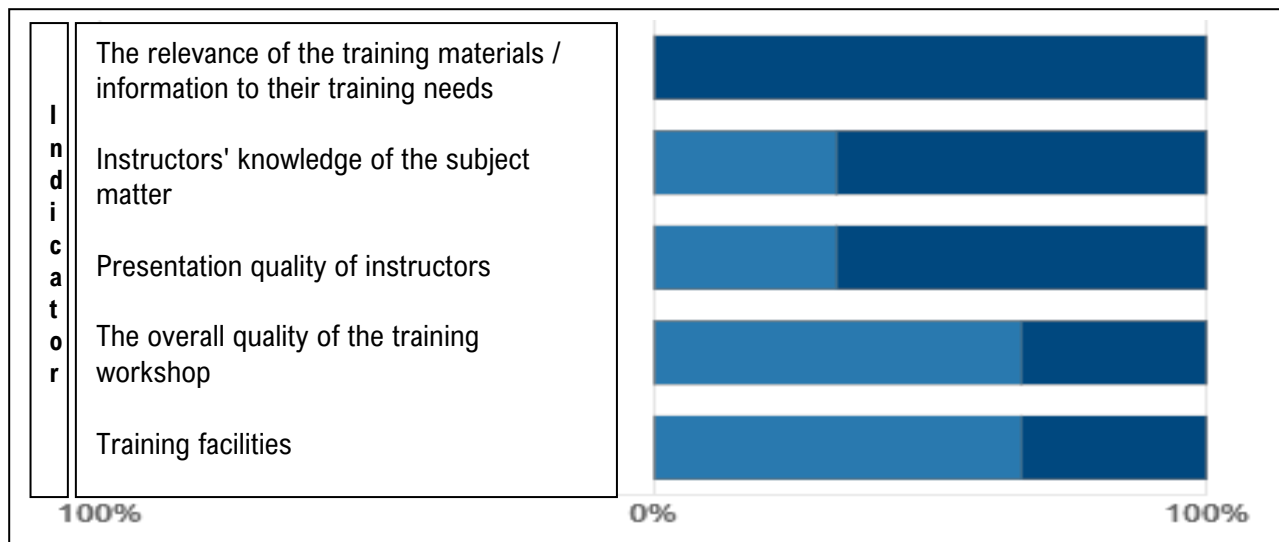

Figure 1: Level of satisfaction

3. **Assessment of the level of knowledge**

Learners were assessed on their level of knowledge prior to and after the training programme. The assessment was categorised according to the structure of the programme as presented in the programme outline. The responses are provided in Table 1.

Table 1 - Assessment of level of knowledge of subject matter prior to and after the training						
Description	**Level of knowledge prior to the training**			**Level of knowledge after the training**		
Academia industry collaborations, technology transfer and the role of technology transfer offices	Very low	Moderate	Very low	High	High	High
Intellectual property and the negotiation of research contracts, intellectual property audit	Very low	Low	Very low	High	High	High
Technology transfer and commercialization, financing options and support for the incubation of innovative companies	Very low	Moderate	Very low	High	High	High
Dissemination of research outcomes, developing and maintaining toolkits for a Technology Transfer Office	Very low	Low	Low	High	High	High

4. Assessment on the applicability of knowledge gained

Table 2 summarises the learners' responses on the application of the knowledge gained on the job.

Table 2 - Assessment on the applicability of knowledge gained			
Description	**Responses**		
Apply the knowledge gained to support academia industry collaborations and technology transfer in your university.	Yes	Yes	Yes
Contribute to the development of toolkits for the management of academia industry partnerships, intellectual property, and technology transfer in your organisation	Yes	Yes	Yes
To support the technology transfer and commercialization process in your university	Yes	Yes	Yes
To support the technology transfer and commercialization process in your university	Yes	Yes	Yes
Assist researchers to disseminate research outcomes to different stakeholders	Yes	Yes	Yes
Review and negotiate research contracts and agreements	Yes	Yes	Yes
Identify financing options and support for the incubation of innovative companies in your institution	Yes	Already doing this	Yes

5. Assessment of other matters

- The learners indicated they were satisfied with their accommodation and enjoyed the Ghanaian dishes.

- All three learners indicated they would recommend the training programme to other colleagues and/or institutions. Below are some of the reasons given for this response.
  - a) "Good welcome, very good explanation".
  - b) "Impeccable welcome, clear explanation, clear slides, friendly atmosphere, visit of the structures''.
  - c) "The organizing team, the trainers, the translators have all the skills for this type of training".

- **Below are responses to what the learners' liked most about the training.**
  - a) "I really enjoyed the presentations, and the ways to answer the questions".
  - b) "A lot of information with clarity".
  - c) "This training was very interactive and exciting".

- **The underlisted are responses to what they liked least about the training.**
  - a) "Lack of man as trainer".
  - b) "The notepad had few sheets".

- **How could the training be further improved?**
  - a) "Add more images in some presentations".
  - b) "Slides in multiple languages".

- **How would you rate the pre training preparation procedures, services provided and turnaround time.**
  - a) "Satisfied".
  - b) "Satisfied".
  - c) "Very satisfied".

TRAINING AGREEMENT

BETWEEN

UNIVERSITY OF GHANA

AND

NAZI BONI UNIVERSITY

This Training Agreement (hereinafter referred to as "Agreement") is made this 20th day of January 2023

BETWEEN

University of Ghana, a Public Higher Education Institution established by an Act of Parliament, University of Ghana Act, 2010 (Act 806) whose administrative offices are at Legon Boundary Road, P. O. Box LG 25, Legon, Accra, Ghana, represented by its Pro Vice-Chancellor for Research, Innovation and Development (hereinafter referred to as **"UG"**) which expression shall, where the context so admits or requires, include its successors in title and assigns of the one part;

AND

Nazi BONI University (hereinafter referred to as **Nazi BONI,** a public university located in Bobo-Dioulasso, Houet Province, Burkina Faso, which expression shall, where the context so admits or requires, include its successors in title and assigns of the one part.

Each a "Party" and collectively "the Parties" to this Agreement.

WHEREAS

Nazi Boni has requested UG's Office of Research, Innovation and Development (ORID) to provide training on the **"Establishment and operationalisation of a technology transfer office at the Nazi Boni University"** (the Purpose).

ORID has the capacity and has accepted and expressed its willingness to provide the above-mentioned training.

The Parties have decided to enter into this Agreement for the Purpose and wish to set the terms and conditions for the collaboration.

WHEREFORE THE PARTIES AGREE AS FOLLOWS:

1.0   OBLIGATIONS OF NAZI BONI
  i.   Provide information to UG on existing framework for the management of technology transfer at Nazi Boni University.
  ii.   Provide information needed for a training needs assessment.
  iii.   Provide funding to UG to roll out the training.
  iv.   Make the necessary arrangement for its staff to travel for the training at UG.

2.0   OBLIGATIONS OF UG
  i.   Undertake a scoping assessment of existing framework for technology transfer at Nazi Boni.
  ii.   Conduct a training needs assessment.
  iii.   Develop a training programme based on the needs assessment for consideration by Nazi Boni.
  iv.   Identify and provide subject matter experts to serve as Resource Persons.
  v.   Conduct the training based on a schedule agreed upon with Nazi Boni.
  vi.   Facilitate visits of the Nazi Boni team to another technology transfer office and an innovation hub in Accra, Ghana.

3.0 PERIOD OF PERFORMANCE

The period of performance for this Agreement shall be from **January 23, 2023** (the "Effective Date") to **January 27, 2023** (the "Completion Date"). The Completion Date may be modified or extended only by mutual written agreement of the Parties.

4.0 INVOICING

UG shall submit an invoice to Nazi Boni at the following address.

Centre d'Excellence Africain en Innovations
Biotechnologiques pour l'Elimination des Maladies à
Transmission Vectorielle (CEA/ITECH-MTV)
Université Nazi BONI, BURKINA FASO

5.0 FUNDING

Nazi Boni shall make payment to UG within seven (7) days of receipt of the said invoice. Nazi Boni shall transfer to UG a total of **USD 4,450** in advance as per the budget attached as Annex 2.

Funds will be remitted by bank transfer to UG's bank details below:

Name of Account Holder: University of Ghana External Fund Dollar Account
Account number: 8700226526400
Name of Bank: Standard Chartered Bank
Address of Bank: P.O. Box LG 16, Legon, Accra, Ghana
Swift Code: SCBLGHAC
Sort/Branch Code: 020108
City, Country Accra, Ghana

Remittance Information for UG must be addressed to:
The Senior Accountant
Office of Research, Innovation and Development
P. O. Box LG 1142
University of Ghana, Legon
Tel: +233 303930436
Email: ahhofe@ug.edu.gh/orid-finance@ug.edu.gh

For ease of reference and tracking, proof of payment should be submitted by email to orid-finance@ug.edu.gh with a copy to orid-cad@ug.edu.gh.

6.0 INTELLECTUAL PROPERTY

6.1 Any intellectual property (including but not limited to patents, copyrights, design rights, confidential information, datasets, trademarks, know-how, tangible research property) owned by a Party prior to effecting this Agreement (hereinafter "Background Intellectual Property") and used in connection with this Agreement shall remain the property of the Party introducing the same.

6.2 Each Party grants to the other a royalty-free, non-exclusive license to use its Background Intellectual Property for the sole purpose of executing this Agreement. No Party may grant any sub-license over or in respect of the other Party's Background Intellectual Property.

6.3 Copyrights in the training materials shall remain with UG.

6.4 UG hereby grants to Nazi Boni, a royalty free, non-exclusive, non-transferrable license to use the training materials for non-commercial purpose and to share the materials with the staff of the technology transfer office at Nazi Boni only.

7.0 CONFIDENTIALITY

Each Party will keep confidential the other Party's confidential information which shall mean all secret or not generally known information or information which is not easily accessible to others or of a commercially sensitive nature disclosed or made available in any way by one Party ("Discloser") to the other ("Recipient") for use in connection with this Agreement (including the Background IP and Foreground IP of the Discloser) and marked or labelled by the Discloser as "Proprietary", "Confidential" or "Sensitive" at the time of disclosure ("Confidential Information"). This obligation shall not apply to such information as the Recipient can show to the reasonable satisfaction of the Discloser: (a) has become public knowledge other than through any fault of the Recipient; (b) was already known to the Recipient prior to disclosure by the Discloser; (c) was independently developed by the Recipient without recourse to or use of any Confidential Information; (d) has been received by Recipient from a third party who did not acquire it in confidence from the Discloser, or someone owing a duty of confidence to the Discloser; or (e) the Recipient is required to disclose by law or by a requirement of a regulatory body.

8.0 REPORTING

UG shall submit a report of the training to Nazi Boni University within a month of completing the training programme.

9.0 NOTICES

UG's representative for receiving notices until further notice shall be:
The Director of Research
Office of Research, Innovation and Development
P. O. Box LG 1145, University of Ghana, Legon, Accra
Email: orid-researchadmin@ug.edu.gh

With a copy to:
Mrs. Diana Adobea Owusu Antwi
Team Leader, Technology Transfer and Intellectual Property Services
Office of Research, Innovation and Development
Email: orid-ipatt@ug.edu.gh

Nazi Boni's representative for receiving notices until further notice shall be:
Name: Dr Moussa OUEDRAOGO
Designation: Head of Department of Pro Vice-Chancellor
Research, Prospecting, International Cooperation
Address: Nazi BONI University, Burkina Faso
Email: ouedmoss@univ-bobo.bf

With a copy to:
Name: PROFESSOR ABDOULAYE DIABATE
Designation: Director of CEA/ITECH-MTV
Email: npiediab@gmail.com

10.0 TERMINATION

Either Party may terminate this Agreement due to a breach or default of the other Party by giving at least (3) days written notice to the other Party.

11.0 GOVERNING LAW

The construction and performance of this Agreement will be governed by the laws of the Republic of Ghana and the language of the contract shall be English.

12.0 FORCE MAJEURE

Neither Party will be liable for losses, defaults, or damages under this Agreement which result from delays in performing, or inability to perform, all or any of the obligations or responsibilities imposed upon it pursuant to the terms and conditions of this Agreement due to or because of Acts of God, acts of government, earthquakes, floods, strikes, civil strife, fire, pandemics including COVID-19, or any other cause beyond the reasonable control of the Party that was so delayed in performing or so unable to perform, provided that such Party was not negligent and shall have used reasonable efforts to avoid and overcome such cause. Such Party shall resume full performance of such obligations and responsibilities promptly upon removal of any such cause.

13.0 DISPUTE RESOLUTION

The Parties to this Agreement agree to resolve any conflicts, misunderstanding, controversy, disputes, or claims arising out of or relating to this Agreement through friendly negotiations between their senior executives or authorized officials.

The Parties agree not to submit any controversy, claim, dispute, misunderstanding for resolution to any arbitral tribunal or court but shall at all times comply with this clause.

14.0 GOOD FAITH

Each Party shall cooperate with the other in good faith to achieve the objectives of this Agreement and shall not unreasonably withhold requests for information, approvals, or consents.

15.0 INDEMNITY

The Parties herein hereby warrant to defend, indemnify and hold harmless each other and each of their trustees, officers, employees, agents and volunteers from and against any and all liabilities, claims, losses, lawsuits, and/or expenses, arising out of, resulting from, or in connection with the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligence or intentional acts or omissions of a Party, its officers, subcontractors, assignees, appointees, agents, or employees.

16.0 COUNTERPARTS

This Agreement shall be signed in duplicates and submitted by electronic transmission as a portable document file (pdf), each of which shall be considered an original and both of which duly executed represent one entire document and shall enter into force and effect on the date on which the last of the two Parties signs the Agreement.

Signed on behalf of
UNIVERSITY OF GHANA

Name of Authorized Official:
PROFESSOR FELIX ANKOMAH ASANTE

Position:
PRO VICE-CHANCELLOR
(Research, Innovation and Development)

Signature and Stamp:

Date:

IN WITNESS THEREOF:

UNIVERSITY OF GHANA
Name: PROFESSOR JOSEPH KOFI TEYE
Director of Research
Office of Research, Innovation and Development

Signature:

Date:

Accepted on behalf of
NAZI BONI UNIVERSITY

Name of Authorized Official:
PROFESSOR HASSAN BISMARCK NACRO

Position:
CHANCELLOR

Signature and Stamp:

Date: 20/01/2023

NAZI BONI UNIVERSITY
Name: DOCTOR JEAN LOUIS ZERBO
Vice-Chancellor
Research, Prospecting, International Cooperation

Signature:

Date: 20/01/2023

Annexes:
Annex 1: Training Programme
Annex 2: Approved Budget

UNIVERSITY OF GHANA

ANNEX 1 - TRAINING PROGRAMME OUTLINE

Organisers: Technology Transfer and Intellectual Property Services (TTIPS) team in collaboration with the Capacity Development (CaD) team, of the Office of Research, Innovation and Development (ORID), University of Ghana

1. **Target Audience:** Technology Transfer (TTO) staff, Nazi Boni University

2. **Mode of delivery:** In person (translator required)

3. **Venue, date, and time**
Monday, 23rd to Thursday, 26th January 2023
Time: 8.40am to 1.30pm (Monday to Wednesday); 8.40am to 2.40pm (Thursday)
Venue: ORID Conference Room, LECIAD Building, University of Ghana

4. **Expected Number of Participants:** Three (3)

5. **Goal:** To set up and operate a technology transfer office at Nazi Boni University.

6. **Learning Objective:** To equip TTO staff with the knowledge to establish and operate a technology transfer office.

7. **Learning Outcomes**
At the end of the training, it is expected that participants would:
a) Be able to develop and conduct programmes aimed at raising awareness of intellectual property, and technology transfer.
b) Be equipped with the basic skills to negotiate intellectual property clauses in research contracts.
c) Understand the various forms of intellectual property rights and their applications.
d) Be able to facilitate the protection of research results.
e) Develop capacity to identify innovative (research) projects with market potential, map and promote these projects to partners.
f) Be provided with the knowledge to support the commercialisation of research results and manage intellectual property portfolio.
g) Be equipped with the skills to mobilise financing and support for the incubation of innovative companies.
h) Be able to foster collaborations with industry and other stakeholders to advance research, innovation, and development.

8. **Structure of the programme**
The programme is structured as follows:

Module 1

Day 1: Academia industry collaborations, technology transfer and the role of Technology Transfer Offices
- To introduce participants to the basic concept of technology transfer.
- To discuss the functions of a TTO.
- To highlight the inputs required to establish a TTO, expected outputs of a TTO, and the importance of technology transfer for socio-economic development.
- To engage participants on collaborations with the private sector for research, innovation, and development purposes.

Day 2: Intellectual property and the negotiation of research contracts, intellectual property audit
- To explain the fundamental concepts of intellectual property and intellectual property rights.
- To provide participants with the basic skills to understand, review and negotiate intellectual property clauses in research contracts.

Page 8 of 12

- To discuss the basic steps of undertaking an audit of a university's intellectual assets.

Day 3: Technology Transfer and commercialisation, financing options and support for the incubation of innovative companies
- To give an overview of the technology transfer process.
- To discuss options for technology commercialisation.
- To discuss financing options and support for the incubation of innovative companies.

Day 4: Dissemination of research outcomes, developing and maintaining toolkits for a TTO
- To discuss strategies for disseminating research outcomes to different stakeholders.
- To explain and guide participants in developing toolkits for a TTO.

9. **Type of learning assessment**
   - Formative – case studies during some of the presentations.
   - Summative – a quiz with multiple choice questions to be taken at the end of the training.

10. **Mechanism to assess audience satisfaction**
    - Completion of an evaluation questionnaire at the end of the module.

11. **Resource Persons**
    The training would be delivered by subject matter experts from the University of Ghana.

12. **Deliverables:** Certificate of Participation, Training Report

13. **Budget: USD 4,000**

ESTABLISHMENT AND OPERATIONALISATION OF A TECHNOLOGY TRANSFER OFFICE AT NAZI BONI UNIVERSITY

Day 1 – Monday, 23rd January 2023
Facilitator – Mrs. Amma Appah

1. Academia industry collaborations, technology transfer and the role of Technology Transfer Offices (TTOs)

Time	Activity	Presenter
8.30am – 8.40am	Self-introductions	Participants
8.40am – 8.50am	Welcome Remarks	Professor Joseph Teye Director of Research, ORID, UG
8.50am – 9.00am	Remarks	Dr. Moussa Ouedraogo Nazi BONI University
9.000 am – 10.00am	**Presentation 1** Technology transfer and the role of University Technology Transfer Offices	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
10.00am – 11.00am	**Presentation 2** **Establishing a TTO** Inputs, output and expected impact Determining a business model for the TTO.	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 3** Fostering and managing academia industry collaborations	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer, ORID, UG
12.20pm – 1.20pm	**Presentation 4** Identifying, promoting, and mapping university research and innovations to industry and other stakeholders	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer, ORID, UG
1.20pm	**Lunch**	

Day 2 – Tuesday, 24th January 2023
Facilitator – Mrs. Manaa Ampa – Sowa

2 - Intellectual property and the negotiation of research contracts

Time	Activity	Presenter
8.40am – 9.00am	Recap of Day 1 discussions	Mrs. Amma Appah Research Development Officer, ORID, UG
9.00am – 10.00am	**Presentation 5** Introduction to Intellectual Property and Intellectual Property Rights	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
10.00am – 11.00am	**Presentation 6** Understanding, reviewing, and negotiating research contracts	Mrs. Selasie Agamah & Mrs. Grace Martey Research Development Officers, ORID, UG
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 7:** **Case studies:** Understanding, reviewing, and negotiating research contracts	Mrs. Selasie Agamah & Mrs. Grace Martey Research Development Officers, ORID, UG
12.20pm – 1.20pm	**Presentation 8 -** Undertaking an Intellectual Property Audit	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
1.20pm	Lunch break	

Day 3 – Wednesday, 25th January 2023
Facilitator – Mrs. Amma Appah

3: Technology Transfer, commercialisation options and support for the incubation of innovative companies		
8.40am – 9.00am	**Recap of Day 2 discussions**	Mrs. Manaa Ampa - Sowah Research Development Officer, ORID, UG
9.00 am – 10.00am	**Presentation 9** Technology Transfer Process	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
10.00am – 11.00m	**Presentation 10** Commercialisation Options	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
11.00am – 11.20am	Comfort Break	
11.20am – 12.20pm	**Presentation 11** Financing options and incubation of innovative companies	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer, ORID, UG
12.20pm – 1.20pm	**Presentation 12** Identifying and highlighting success stories	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer, ORID, UG
1.20pm	Lunch	

Day 4 – Thursday, 26th January 2023 Facilitator – Mrs. Manaa Ampa – Sowa		
Day 4:		
8.40am – 9.00am	**Recap of Day 3 discussions**	Mrs. Amma Appah Research Development Officer, ORID, UG
9.00am – 10.00am	**Presentation 13** Disseminating research outcomes to different stakeholders	Mr. Daniel Anafo Research Development Office, ORID, UG
10.00 – 11.00am	**Presentation 14** Planning, developing, and organising sensitisation programmes for faculty and students	Mrs. Diana A. Owusu Antwi & Mrs. Amma Appah Research Development Officers, ORID, UG
11.00am – 11.20am	**Comfort Break**	
11.20am – 11.50pm	**Presentation 15a** Developing tool kits for academia industry partnerships	Mrs. Mammie Hutchful Nortey Snr. Research Development Officer, ORID, UG
11.50am – 12.20pm	**Presentation 15b** Developing tool kits for the management of intellectual property and technology transfer	Mrs. Diana A. Owusu Antwi Snr. Research Development Officer, ORID, UG
12.20pm – 1.00pm	Lunch	
1.00pm – 1.20pm	**Presentation 16a** Online quiz	Reps from Nazi BONI University
1.20pm – 1.40pm	**Presentation 16b:** Discussion of quiz	Mrs. Diana A. Owusu Antwi & Mrs. Mammie Hutchful Nortey Snr. Research Development Officers, ORID, UG Reps from Nazi BONI University
1.40 pm – 2.00pm	Participants share their learning experiences	Reps from Nazi BONI University
2.00pm – 2.20pm	Evaluation of training	Reps from Nazi BONI University
2.30 pm – 2.45pm	Closing	Professor Joseph Teye Director, Research, ORID

Annex 2: Approved Budget

No	Description	Unit Cost (USD)	Quantity	Total Cost (USD)	Comments
	ESTIMATED BUDGET FOR TRAINING FOR STAFF OF NAZI BONI UNIVERSITY				
	MODULE 1 4 DAY IN PERSON WORKSHOP				
1	Venue	70.00	4.00	280.00	For use of ORID Conference Room
2	Snacks, Lunch and water	9.00	40.00	360.00	USD9 per day for 10 persons for 4 days. This covers meals for 1 Translator, 3 staff of Nazi Boni, 1 facilitator, 1 ORID driver, 2 resource persons,1 Admin Assistant and1 IT support staff
3	Fees for Resource Persons	110.00	16.00	1,760.00	For 16 sessions in the module. This amount covers content preparation, delivery
4	Facilitator Fees	40.00	4.00	160.00	For facilitation and support services @ USD40 per person for 4 days
5	Translation fees	250.00	4.00	1,000.00	Cost of providing translation services at USD250 per day for 4 days
6	Workshop organisation and support	20.00	8.00	160.00	USD20 per person per day for 4 people, i.e. 1 Admin Assistant from CaD / TTIPS, 1 IT support staff, 1 driver, 1National Service Person
7	Workshop pack	6.00	3.00	18.00	Note pads, pens, name tag, flip chart, certificate of participation
8	Service Charge	30.00	8.00	240.00	Cost of conducting scoping exercise, needs assessment, development of course structure and outline, budget preparation, report writing, accounting services, etc.
9	Miscellaneous	22.00	1.00	22.00	For incidentals
	Total			**4,000.00**	
	DAY 5 - VISIT TO WACCBIP, INCUBATION HUB AND TECH TRANSFER OFFICE				
1	Translation Fee	250.00	1.00	250.00	Cost of translation services at USD250 per day
2	Vehicle cost (Usage and fuel)	60.00	1.00	60.00	For use of vehicle and fuel
3	Lunch	6.00	5.00	30.00	Lunch for 3 staff of Boni Nazi, 1 driver, 1 Admin assistant and a translator
4	Organisation and support charge	20.00	3.00	60.00	USD20 per person per day for 3 persons
5	Miscellaneous	50.00	1.00	50.00	For incidentals
	Total			**450.00**	