

Strategic Use of Innovation and Intellectual Property to Move Africa towards a Knowledge-Based Economy



Garden Court Hotel, Johannesburg, South Africa
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Program Aim

The field of Intellectual Property (IP) is evolving due to constant improvement of legislation and enforcement. As a result, officials from the AUDA/NEPAD Agency and Member States need a regular development of IP knowledge and skills. The goal of the training workshop on capacity building for Intellectual Property Protection and Utilization is to strengthen the capacity of selected officials from AUDA/NEPAD Agency and Regional Economic Communities (REC) in Intellectual Property (IP). The knowledge acquired aims to equip participants to discharge their professional responsibilities in providing technical support to Member States and the African Union in the pursuit of Science, Technology and Innovation for Africa. The training workshop on capacity building for Intellectual Property protection and utilization therefore, fully corresponds to the objectives of STISA 2024 and AU Agenda 2063. Through the strategic use of Innovation and IP, Africa will move towards a knowledge-based economy.



Participants

The workshop is tailored to meet the needs of 20-30 officials from AUDA/NEPAD Agency and delegates from Regional Economic Communities (RECs).

Objectif du Programme

Le domaine de la Propriété Intellectuelle (PI) évolue en raison de l'amélioration constante de la législation et de son application. En conséquence, les fonctionnaires de l'Agence du AUDA/NEPAD et des États Membres ont besoin de développer régulièrement leurs connaissances et leurs compétences en matière de Propriété Intellectuelle. L'objectif de l'atelier de formation sur le renforcement des capacités en matière de Protection et d'Utilisation de la Propriété Intellectuelle est d'améliorer les compétences des fonctionnaires sélectionnés de l'agence du AUDA/NEPAD et des communautés économiques régionales (CER) en matière de Propriété Intellectuelle (PI). Les connaissances ainsi acquises visent à donner aux participants les moyens de s'acquitter de leurs responsabilités professionnelles en fournissant un appui technique aux États Membres et à l'Union Africaine dans les domaines de la Science, de la Technologie et de l'Innovation en Afrique. L'atelier de formation sur le renforcement des capacités en matière de Protection et d'utilisation de la Propriété Intellectuelle correspond donc pleinement aux objectifs STISA 2024 et Agenda 2063 de l'Union Africaine (UA). Grâce à l'utilisation stratégique de l'Innovation et de la Propriété Intellectuelle, l'Afrique évoluera vers une économie fondée sur la connaissance.

Participants

L'atelier est conçu pour répondre aux besoins de 20 à 30 fonctionnaires de l'Agence du AUDA/NEPAD et des Communautés Economiques Régionales (CER).

Content

The workshop will focus on four thematic areas, which were identified as critical in equipping officials of AUDA/NEPAD Agency, and Regional Economic Communities (RECs) to effectively assist AU Member States pursue the objectives defined in chapters 2 and 3 of STISA 2024 as outlined below:

1. Building an understanding of the main IP rights and how they can be used to enhance technological innovation and entrepreneurship;
2. Use of trademarks and branding, especially by small and medium enterprises (SME's) and how these tools can be used to enhance the commercial success of their products and services. Crucial marketing and strategic considerations that African companies should bear in mind before adopting a mark and the detailed characteristics that marks should possess in order to be validly registered and used at home and abroad.
3. The skills needed to achieve protection, use and commercialization of innovation in three inter-related areas, namely:
 - a. patents of inventions and the legal characteristics that an invention should possess throughout Africa in order to be registered and protected,
 - b. access to life-saving patented pharmaceutical products; and
 - c. protection of traditional knowledge as a source of innovation.
4. The main substantive issues that are currently being negotiated in the field of IP at international, regional and bilateral level. By way of example, the IP Chapters of various FTAs, including the Continental Free Trade Agreement and the policy and advocacy of positions which will favor a good outcome for national African negotiators.

Contenu

L'atelier se concentrera sur quatre domaines thématiques, identifiés comme essentiels pour former les fonctionnaires de l'Agence du AUDA/NEPAD et des Communautés Economiques Régionales (CER) à aider efficacement les États Membres de l'UA à poursuivre les objectifs définis aux chapitres 2 et 3 du STISA 2024, comme indiqué ci-dessous:

1. Développer une compréhension des principaux droits de Propriété Intellectuelle et la façon dont ils peuvent être utilisés pour renforcer l'innovation technologique et l'esprit d'entreprise;
2. Utilisation des marques déposées et de fabrique, en particulier par les petites et moyennes entreprises (PME), et la manière dont ces outils peuvent être utilisés pour améliorer le succès commercial de leurs produits et services; prise en compte cruciale par les entreprises africaines du marketing et des considérations stratégiques avant d'adopter une marque ainsi que les caractéristiques détaillées qu'une marque doit posséder pour être valablement enregistrée et utilisée sur le territoire national et à l'étranger;
3. Les compétences nécessaires pour assurer la protection, l'utilisation et la commercialisation de l'innovation dans trois domaines interdépendants, à savoir:
 - a. les brevets d'invention et les caractéristiques juridiques qu'une invention doit posséder dans toute l'Afrique pour être enregistrée et protégée,
 - b. l'accès aux produits pharmaceutiques brevetés permettant de sauver des vies; et
 - c. la protection du savoir traditionnel comme source d'innovation.

In order for the workshop participants to be able to provide ongoing training on the above topics to other relevant African stakeholders, the workshop will include a Training of Trainers (ToT) module aimed at building the capacity of participants to act as capable and effective IP trainers and mentors. This last module characterizes the sustainability component of the capacity-building program.



Workshop Objectives and Learning Outcomes:

In the framework of the training, participants will learn strategies for ensuring protection of copyright (including indigenous knowledge) and related rights, and how to regulate IP management.

By the end of the workshop, the participants shall be able to:

- Understand the notion of innovation and innovation systems.
- Identify and define the main types of intellectual property rights and their potential for African countries and companies.
- List at least four characteristics that

4. Les principales questions de fond dans le domaine de la Propriété Intellectuelle qui sont en cours de négociation aux niveaux international, régional et bilatéral. À titre d'exemple, les articles consacrés à la Propriété Intellectuelle de divers accords de libre-échange, y compris l'Accord de Libre-Echange Continental, ainsi que la politique et la défense des positions qui favoriseront une issue favorable pour les négociateurs nationaux africains.

Afin que les participants de l'atelier puissent dispenser une formation continue aux autres parties prenantes africaines concernées par les sujets susmentionnés, l'atelier inclura un module de Formation des Formateurs visant à renforcer la capacité des participants à agir en tant que formateurs efficaces et compétents et mentors en matière de Propriété Intellectuelle. Ce dernier module caractérise le volet développement durable du programme de renforcement des capacités.

Objectifs de l'Atelier et Résultats d'Apprentissage:

Dans le cadre de la formation, les participants apprendront des stratégies pour assurer la protection du droit d'auteur (y compris le savoir indigène) et des droits connexes, ainsi que des méthodes pour réglementer la gestion de la Propriété Intellectuelle.

À l'issue de l'atelier, les participants seront en mesure de:

- Comprendre la notion d'innovation et des systèmes d'innovation.
- Identifier et définir les principaux types de droits de propriété intellectuelle et leur potentiel pour les entreprises et les pays africains.

trademarks should possess in order to become successful brands.

- Describe the main legal requirements that trademarks must comply with in order to be validly registered in African countries and abroad, with special focus on the distinctiveness of marks and their potential similarity.
- Outline the functioning of the Madrid System for the International Registration of marks.
- Provide a definition of “patents” and describe the five legal characteristics that an invention should have in order to be registered.
- Describe at least four key policy measures that may be adopted to ensure access to life-saving drugs for all.
- List the main legal issues surrounding the protection of traditional knowledge (TK), and propose at least three policy options to capitalize on African traditional medicines and biological materials.
- Describe the main advancements introduced by the IP Chapters of recent FTAs and explain their policy implications for Africa.
- Apply at least 15 best practices on adult learning and training methodologies to the conception and delivery of future IP training programs.



- Citer au moins quatre caractéristiques que les marques déposées doivent posséder pour devenir des marques à succès.
- Décrire les principales exigences légales auxquelles doivent satisfaire les marques déposées pour pouvoir être valablement enregistrées dans les pays africains et à l'étranger, en mettant l'accent sur le caractère distinctif des marques et leur similitude potentielle.
- Décrire le fonctionnement du Système de Madrid concernant l'Enregistrement International des marques.
- Fournir une définition du terme “brevet” et décrire les cinq caractéristiques juridiques qu'une invention doit posséder pour être enregistrée.
- Décrire au moins quatre mesures politiques clés pouvant être adoptées pour assurer l'accès pour tous à des médicaments vitaux.
- Énumérer les principales questions juridiques relatives à la protection du savoir traditionnel (ST) et proposer au moins trois options politiques permettant de capitaliser sur la médecine traditionnelle africaine et les matières premières biologiques.
- Décrire les principales avancées introduites par des articles spécifiques à la Propriété Intellectuelle dans les récents Accords de Libre-Echange et expliquer leurs implications politiques pour l'Afrique.
- Appliquer au moins 15 bonnes pratiques concernant les méthodologies d'apprentissage et de formation des adultes à la conception et à la mise en œuvre des futurs programmes de formation en Propriété Intellectuelle.

Training Methodology

This five-day workshop will adopt an eminently interactive, practical and problem-solving training methodology suited to the needs of adult learners. The underlying assumption is that adult learners, unlike children, are self-directed and come to the training with specific professional needs that have to be addressed during the training event. This training will therefore be tailor-made to the specific professional needs of a given group of beneficiaries, who, at the end of the event, will be able to demonstrate enhanced knowledge and skills to properly and effectively discharge their professional responsibilities in the field of IP.

This methodology consists of steps, procedures and techniques that need to be carried out prior and during the training. Each tool is designed to enhance the level of retention of adult learners and provide them with the precise expertise that they need to perform their daily duties.

Before the training all the potential participants and trainees will receive an input test which will aim to understand the knowledge base of participants. At the end of the training, the participants will fill in an output survey, which will help the team of the trainers to see how the received knowledge will be useful and fruitful for the trainees.



Méthode de Formation

Cet atelier de cinq jours adoptera une méthodologie de formation éminemment interactive et pratique, axée sur la résolution de problèmes et adaptée aux besoins des apprenants adultes. L'hypothèse sous-jacente est que contrairement aux enfants, les apprenants adultes sont autonomes et viennent à la formation avec des besoins professionnels particuliers qui doivent être pris en compte. Cette formation sera donc adaptée aux besoins professionnels spécifiques d'un groupe de bénéficiaires qui, à la fin de cet atelier, seront en mesure de faire preuve de connaissances et de compétences améliorées leur permettant de s'acquitter correctement et efficacement de leurs responsabilités professionnelles dans le domaine de la formation en PI.

Cette méthodologie comprend des étapes, procédures et techniques à mettre en place avant et pendant la formation. Chaque outil est conçu pour améliorer le niveau de rétention des apprenants adultes et leur fournir l'expertise précise dont ils ont besoin pour effectuer leurs tâches quotidiennes.

Avant la formation, tous les participants potentiels et les stagiaires recevront un test d'entrée qui aura pour objectif d'évaluer le niveau de connaissances des participants. À la fin de la session, les participants répondront à un sondage sur les résultats qui aidera l'équipe de formateurs à déterminer dans quelle mesure les connaissances acquises seront utiles et fructueuses pour les stagiaires.

Programme

Day 1

Opening Session directed by Dr Janet Byaruhanga (AUDA/NEPAD)

8:30 – 09:00 Registration of Participants
Facilitator: **AUDA/NEPAD**

09:00 – 09:30 Remarks by **Professor Simba Rusakaniko** (*University of Zimbabwe*)
Remarks by **Mr Fernando dos Santos**, Director General of the African Regional Intellectual Property Organization (*ARIPO*)
Remarks by **Professor Aggrey Ambali** (*AUDA/NEPAD*)
Official Opening by **Professor Nelson Torto** (*African Academy Sciences*)
Group Photo

Morning Session Moderator: Dr Janet Byaruhanga (AUDA/NEPAD)

09:30 – 09:45 Input Test

09:45 – 10:40 **Topic 1:** Scene-setting: History of IP, types of innovations and innovation ecosystems

- Industrial transitions
- IP promoting and stifling innovation?
- The Role of Researchers and Entrepreneurs in Facilitating Technology Transfer, Adoption and Adaptation in the African Context

Speaker: **Dr Geoff Banda** (*University of Edinburgh*)

10:40 – 11:00 Tea Break

11:00 – 12:00 **Topic 2:** Introduction to IP: Key Concepts behind IP Assets

- International IP protocols
- IP Asset Classes
- Databases
- Trademarks

Speaker: **Mr Josef Geoola** (*Ingentium*)

12:00 – 13:00 **Topic 3:** Overview of ARIPO and its Value Proposition to Africa

- Service to African Entrepreneurs
- The Role of ARIPO in Shaping IP Substance and Teaching in Africa
- Tripartite agreement between ARIPO, OAPI and WIPO
- Overview of IP activity in the pharmaceutical sector in Africa
- Knowledge transfer and technology know-how

Speaker: **Mr Fernando dos Santos** (*Director General, ARIPO*)

13:00 – 14:00 Lunch Break

Afternoon Session Moderator: Mr Josef Geoola (Ingentium)

14:00 – 15:00 **Topic 4:** Overview of International Intellectual Property Legal Framework and Registration Systems

- ARIPO Registration System under the Harare, Banjul and Swakopmund Protocols

Speaker: **Mr Said Ramadhan** (*Senior Patent Examiner, ARIPO*)

Day 1

- 15:00 – 16:00 **Topics 5:** Trademarks and Branding for African SMEs:
- IP and SMEs: the African Perspective
 - Using Trademarks and Industrial Designs as Tools for Branding and Value Addition for African SMEs
 - Strategic Use of IP for Branding
- Speaker: **Mr Outule Rapuleng** (*Head of ARIPO Academy, ARIPO*)
- 16:00 – 16:30 Questions and Discussions on Topic 4 and 5

Day 2

Morning Session Moderator: Mr Emmanuel Sackey (ARIPO)

- 09:00 – 10:00 **Topic 6:** Pharmaceutical Patents, TRIPS Flexibilities and Access to Life-Saving Drugs – a Strategic and Rules-based Approach for Africa
- WHO efforts on access to essential medicines
- Speaker: **Miss Alex Makotse** (*Ingentium*)
- 10:00 – 11:00 **Topic 7:** Sustainable and Responsible Innovation
- Speaker: **Professor Kenneth Amaeshi** (*University of Edinburgh*)
- 11:00 – 11:15 Tea Break
- 11:15 – 12:15 Questions and Discussions on **Topics 5 and 6**
- 12:15 – 13:00 Questions and Discussions on **Topics 7**
- 13:00 – 14:00 Lunch Break

Afternoon Session Moderator: Dr Janet Byaruhanga (AUDA/NEPAD)

- 14:00 – 14:40 **Topic 8:** The value of patent information to research technology organizations and researchers
- Freedom to operate (FTOs) or Landscapes?
 - The role of IP in promoting innovation and commercializing research results
 - Creation and Acquisition of Technologies: Technology Transfer Processes
- Speaker: **Mr Said Ramadhan** (*Senior Patent Examiner, ARIPO*)
- 14:40 – 15:20 **Topic 9:** New Policy and Negotiation Challenges by IP Chapters of Free Trade Agreements (FTAs) and Bilateral Investment Treaties (BITs)
- Speaker: **Mr Assefa Ayalew** (*AUC Social Affairs*)
- 15:20 – 16:00 **Topic 10:** Monetizing IP: The way the game should be played
- Licensing
 - IP as a transferable asset
 - IP Backed Financing
 - IP Audit, valuation and monetization
- Speaker: **Mr Josef Geoola** (*Ingentium*)
- 16:15 – 16:30 Tea Break

Day 2

16:30 – 17:15

Topic 11: Fostering use and exploitation of IP in Universities and R&D Institutions

- Developing IP Policies for Universities and R&D Institutions
- WIPO/ARIPO Guidelines for the Development of IP Policies for Universities and Research Institutions.

Speaker: **Mr Fernando dos Santos** (*Director General, ARIPO*)

DAY 3

Morning Session Moderator: Dr Vera Mugittu (University of Edinburgh)

09:00 – 10:30

Topic 12: Protection of Traditional Knowledge as a Base for Innovation

- Promotion of Traditional Knowledge (Medicine)-based Industries: Challenges and Prospects
- Promoting Traditional Knowledge and Expressions of Folklore: The ARIPO Swakopmund Protocol
- International treaties (NAGOYA Protocol (traditional medicine and biological materials; IGC- WIPO and CBD)
- Legal loopholes that need to be addressed for NAGOYA protocol

Speaker: **Mr Emmanuel Sackey** (*IP Development Executive, ARIPO*)

10:30 – 11:00

Tea Break

11:00 – 12:00

Topic 13: Africapitalism

- Emerging philosophy of economic development for the continent.
- Innovation, IP, et al is for societal progress and development.

Speaker: **Professor Kenneth Amaeshi** (*University of Edinburgh*)

12:00 – 13:00

Exercise 1

Mr Said Ramadhan (*Senior Patent Examiner, ARIPO*)

13:00 – 14:00

Lunch Break

Afternoon Session Moderator: Mr Outule Rapuleng (ARIPO)

14:00 - 15:00

Exercise 2

(*Ingentium*)

15:00 – 16:00

Group Presentations

16:00 – 16:30

Final Discussions on the Exercise

DAY 4 - Train the Trainers

Morning Session Moderator: Mr Outule Rapuleng (ARIPO)

- Institutions

Speaker: **Mr Fernando dos Santos** (*Director General, ARIPO*)

DAY 4 - Train the Trainers

09:00 – 12:30 (with breaks in between) Systematic Approach to Training - NDDDE Approach

- Need Analysis
- Course Design
- Course Development
- Course Delivery
- Course Evaluation

- The Learning Cycle
- Learning Paradigm

- Prepare me
- Tell me
- Show me
- Let me do it
- Help me
- Evaluate me

- Tools for training
- Learning Styles
- Key Trainer Skills

Speaker: **Dr Geoff Banda** (*University of Edinburgh*), **Mr Emmanuel Sackey** (*ARIPO*) and **Professor Simba Rusakaniko** (*University of Zimbabwe*)

13:00 – 14:00 Lunch Break

Afternoon Session Moderator: AUDA/NEPAD

14:00 – 15:00 How to Train on IP issues
Speaker: **Mr Outule Rapuleng** (*Head of ARIPO Academy, ARIPO*) and (*Ingentium*)

16:00 – 16:30 Break-out session in Groups

- Allocation of Specific Topics to Groups
- Prepare training materials
- Choose delivery methods

Speaker: **Mr Emmanuel Sackey** (*ARIPO*) and **Mr Josef Geoola** (*Ingentium*)

DAY 5

Morning Session Moderator: Dr Janet Byaruhanga (AUDA/NEPAD)

09:00 – 13:00 Group presentations on set topics

- After obtaining informed consent record presentations
- Present – learn by doing
- Play back the video presentations and help improve skills of presenters
- Discussion of what approaches work and why?

DAY 5

13:00 – 14:00 Lunch Break

Afternoon Session Moderator: Mr Emmanuel Sackey (ARIPO)

14:00 – 15:00 Evaluation and Wrap-Up and Certificates (of attendance)

- Summary report given by rapporteur **Professor Takafira Mduluza**
- Award of Certificates of Attendance

End of Seminar

Workshop Organisers and Presenters

Professor Kenneth Amaeshi	University of Edinburgh
Professor Aggrey Ambali	Head, Industrialization, Science, Technology and Innovation (ISTI), AUDA/NEPAD (African Union Development Agency/New Partnership for Africa's Development)
Mr Assefa Ayalew	AUC Social Affairs
Dr Geoff Banda	TIBA, University of Edinburgh
Dr Janet Byaruhanga	AUDA/NEPAD
Mr Josef Geoola	Ingentium
Miss Alex Makotose	Ingentium
Dr Vera Magittu	University of Edinburgh
Professor Takafira Mduluza	TIBA Zimbabwe, University of Zimbabwe
Professor Francisca Mutapi	TIBA co-Deputy Director, Edinburgh
Mr Gareth Poxon	University of Edinburgh
Mr Said Ramadhan	Senior Patent Examiner, ARIPO
Mr Outule Rapuleng	Head of ARIPO Academy, ARIPO
Professor Simba Rusakaniko	TIBA Zimbabwe, University of Zimbabwe
Mr Emmanuel Sackey	IP Development Executive, ARIPO
Mr Fernando dos Santos	Director General, ARIPO
Professor Nelson Torto	Executive Director, African Academy Sciences

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Strategic Use of Innovation and Intellectual Property to Move Africa towards a Knowledge-Based Economy



Programme Highlights
Workshop Rapporteur: Professor Takafira Mduluza



Scene Setting: Dr Geoffrey Banda

This session takes a brief historical look at the genesis and adoption of IP tracing the origins to Venice and its adoption in France, Germany and UK as examples. The discussion on IP is situated in the context of industrialization and the battles in terms of national competitiveness. The role of IP and the politics of IP is then discussed briefly in light of industrial transitions – industrial catch-up, technological leapfrogging and protecting higher value economic activities as other technological competencies are lost to regions that can competitively produce economic goods compared to predecessors. This discussion is designed to develop an understanding of the technological and innovation opportunities that exist for African pharmaceutical industries, emerging biologicals manufacture including vaccine production on the continent.

Innovation (radical and incremental) is discussed briefly in terms of impact on existing business models, the need for a supportive innovation ecosystem focusing primarily on funding innovation and proportionate and adaptive governance of emerging innovative technologies. The discussion will also briefly lay out systems of innovation; national, regional, sectoral and technological and how they can be useful as a framework to design innovation ecosystems that are anticipatory to support the long-term innovative capabilities of African countries.

Introduction to IP: Key Concepts behind IP Assets: Mr Josef Geoola

There is a world of IP out there beyond patents - this session will explore the various intellectual property assets, which often underpin pharmaceutical innovation. This includes exploring assets such as trademarks, copyright, know-how and trade secrets. We will look at examples of each type of IP and delve deeper so that delegates:

- learn about the commonalities across various IP asset classes;
- understand some of the relevant treaties and processes governing the registration and protection of IP;
- understand the legal requirements associated with each IP asset class and the scope of protection afforded to each; and
- learn about the key factors, which help inform IP value within each IP asset class

By the end of the session, delegates will be able to identify the various types of IP that may be encountered in the daily operation of their organizations, as well as knowledge of the fundamental steps that need to be taken in order to protect and exploit IP in a responsible manner.

Overview of ARIPO and its Value Proposition to Africa: Mr Fernando dos Santos

Soon after independence, African countries were confronted with the lack of resources and skills to administer the intellectual property (IP) system. This is because during the colonial period, no systems were devised to manage the IP systems and protection of IP rights relied on the mechanism of re-registration of European titles in the colonies. Hence, the dawn of decolonization that started in the 1950's revealed lack of capacity to administer IP at the national level. The two regional intellectual property organizations that were established in Africa, namely the African Intellectual Property Organization (OAPI) and the African Regional Intellectual Property Organization (ARIPO) were born in that context as an attempt to fill the gap by pulling together resources to administer IP on behalf of their member states.

The presentation will unveil the activities that are undertaken by ARIPO to develop the IP system in Africa, especially in its 19 member states. This goes beyond the traditional function of an IP Office, which is limited to registration of IP rights to encompass, first and foremost the awareness creation on the important role that IP can play for the development. The presentation will also highlight the important role of ARIPO in capacity building through the establishment of the ARIPO IP Academy that is delivering professional training, Master's programmes and research in IP.

In the context of the pharmaceutical sector, the presentation will illustrate the contribution of ARIPO in IP protection, norm-setting and the global debates on access to medicines and their impact in African countries, especially the Least Developed countries (LDCS). This will also be an opportunity for participants to explore possible ways of collaboration and develop the necessary synergies that will allow Africa researchers to harness the value of their work through the IP system.

Overview of International Intellectual Property Legal Framework and Registration Systems:

ARIPO Registration System under the Harare, Banjul and Swakopmund Protocols: Mr Said Ramadhan

This presentation will mainly focus on filing and processing of ARIPO applications under:

- a. The Harare Protocol, which empowers ARIPO to grant patents, register industrial designs and utility models as well as to administer the granted patents and registered industrial designs and utility models on behalf of the contracting states, which are: Botswana, Gambia, Ghana, Kenya, Liberia, Lesotho, Malawi, Mozambique, Namibia, Rwanda, Sao Tome & Principe, Sierra Leone, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe;

- b. The Banjul Protocol, which empowers ARIPO to register marks and administer such registered marks on behalf of the Contracting States, which includes: Botswana, Lesotho, Liberia, Malawi, Namibia, São Tomé and Príncipe, Swaziland, Uganda, United Republic of Tanzania and Zimbabwe; and
- c. The Swakopmund Protocol, which empowers ARIPO to register trans-boundary traditional knowledge and expressions of folklore. The Contracting States, which are part to Swakopmund Protocol, are Botswana, Gambia, Liberia, Malawi, Namibia, Rwanda, Zambia and Zimbabwe.

Trademarks and Branding for African SMEs: Mr Outule Rapuleng

The presentation underscores that notion that intellectual property cuts across all sectors of life, not the least of which includes small and medium size enterprises (SME). Most of African countries' industries and employment statistics are driven by the SMEs. While they are either using or creating intellectual property daily, the reality on the ground is that most of these enterprises have not the slightest idea about intellectual property. The presentation zeroes in on two vital areas of IP - Trademarks and Industrial Designs - which the SMEs could harness to multiply their fortunes. It specifically dissects how SMEs could use trademarks and industrial designs as tools for adding value to their products and services, which would in turn help them achieve the very goal they seek to achieve – making more money, creating more employment opportunities and contributing to the national economies. From outlining the link between IP and SMEs; how the SMEs could deploy IP through by making it an integral part of their business strategies, to how brands and designs can be used to influence customers' choices, all indications are that IP is as good as the life of an SME, if used strategically. The presentation offers what could be the low-hanging fruit and quick wins for African SMEs if they protect their trademarks and designs as well as recommendations and the way forward.

Pharmaceutical Patents, TRIPS Flexibilities and Access to Life-Saving Drugs: Ms Alex Mokotose

This presentation introduces the global discussion surrounding the relationship between intellectual property and access to life-saving drugs, which will build on the basic IP concepts to further explore this use of patents in the pharmaceutical industry. The session will focus on pharmaceutical patents in the context of the TRIPS Agreement and the challenges that arise for public health policy within African countries. The key objective is to understand how effective use of IP policy and the TRIPS Flexibilities can improve Access to Life-Saving Drugs in Africa.

- **Understanding Pharmaceutical Patents:** Exploration of the nature of pharmaceutical patents and what challenges they pose on public health.
- **TRIPS Key Concepts:** Introduction to the TRIPS agreement and the following key concepts that underpin the agreement
- **Trips and Developing Countries (Doha Declaration):** Establishment of the link between TRIPS, developing countries and access to life-saving drugs.

- **Examples of Use of Flexibilities in National Policies/Legislation.**
- **Key Policy Steps:** how to navigate TRIPS policy space (Flexibilities).
- **On-Going Initiatives working towards access to life-saving drugs.**

Responsible Research and Innovation: Professor Kenneth Amaeshi

The world is besieged by complex challenges – ranging from climate change to gross poverty and poor healthcare. Arguably, the essence of research and innovation is to help alleviate human sufferings and make the world a better place. This session will draw from this background to explore the role of responsible research and innovation in society, especially within the context of intellectual property, and its practical implications for businesses, organisations, and policy makers. The session will start with a clarification of responsible research and innovation through the broad lens of sustainability and sustainable innovation and then present:

- Responsible research and innovation as:
 - impact management
 - an orientation
 - myths

The value of patent information to research technology organizations and researchers:

Freedom to operate (FTOs) or Landscapes; The role of IP in promoting innovation and commercializing research results; Creation and Acquisition of Technologies: Technology Transfer Processes. Mr Said Ramadhan

In this presentation, the focus will be mainly on the value of patent information in relation to freedom to operate (FTOs) or landscapes, promoting innovation and commercializing research results as well as creation and acquisition of technologies: technology transfer processes. As we may be aware the basic rationale of the patent system is to provide an incentive for the creation of new technology and inventions by offering inventors exclusive rights to commercially exploit patented inventions for a limited time, in return of full disclosure of the invention to the public in the form of a patent document.

The patent information provides a unique and by far the most complete collection of technological information on what is going on in the different fields of technology. About two-thirds of the technical information revealed in patents is often not disclosed in any other form of literature. This is why the patent information is very useful to the research technology organizations and researchers.

Monetizing IP: The way the game should be played: Mr Josef Geoola

Whilst delegates will learn a lot about intellectual property through the preceding sessions, the focus of this session is to highlight the importance of IP for the purposes of transition to a knowledge economy, and demonstrate how Dollar-signs connect to IP assets, which may be owned or controlled by organizations. The session will explore:

- How IP can drive value within an organization;
- Monetization and leveraging of IP assets for the purposes of achieving organizational objectives;
- Reflecting IP value on the balance sheet; and
- Securing and managing IP in-house.

Various case studies will also be reviewed throughout the session in order to provide real-life examples of instances where IP has been successfully monetized.

Fostering Use and Exploitation of IP in Universities and R&D Institutions: Mr Fernando dos Santos

Research Institutes and Universities on the continent that are engaged in the pursuance and dissemination of knowledge are not providing solutions that adequately address pressing societal challenges in today's knowledge and market-based economies. Most African Research Institutes and Universities are still engaged only in teaching and basic research activities and are therefore, missing the opportunity to become the birthplaces of pioneering discoveries, innovations and inventions that can enhance the quality of lives of millions of Africans.

Conscious of the great work that is done by African researchers and aware of the important role that intellectual property can play in harnessing the value of that work, WIPO and ARIPO developed in 2017 the '**Guidelines on Intellectual Property Policy and Strategy for an effective use of the IP System by Universities and Research and Development Institutions in Africa**'. These guidelines are aimed at fostering more effective use of the IP System by African Universities and Research and Development Institutions by encouraging identification, generation, protection and commercialization of IP created in Universities and R&D institutions in Africa. The presentation will allow participants to explore the potential of this important tool and to devise ways of using it in their own institutions to develop the IP culture.

Protection of Traditional Knowledge as a base for Innovation: Mr Emmanuel Sackey

The paper presents a historical context to the creation of traditional knowledge in particular traditional medicine and discusses the relevance of the knowledge in contemporary times. It

also highlights the legal options that are available for the protection of traditional knowledge taking into account the merits and demerits of each option. Considering the economic importance of this knowledge in biomedical research and drug development, it proposes the qualitative analysis of how the knowledge has been exploited without benefit sharing with the custodians of the knowledge. Drawing on such an analysis, the paper explores the international approaches towards providing effective protection of the knowledge and the significance that has been attributed to such developments. Based on these efforts, the author focuses on regional and national measures that have been put in place to address the challenges facing the protection and promotion of traditional knowledge. Lastly, attempts have been made to propose new approaches on how traditional knowledge can serve as framework for innovation and lead to the development and growth of tradition-based industries in Africa.

Africapitalism: Professor Kenneth Amaeshi

Africapitalism is an emerging philosophy, which focuses on how the private sector can meaningfully contribute to Africa's development. This session will expose participants to this business and economic philosophy and explore its implications for the creation and commercialisation of intellectual property in Africa. Some details on Africapitalism are presented below.

Africapitalism is an imaginative and a creative linguistic artefact, which embodies and unleashes a new space for appropriating and re-moralising capitalism in Africa. In other words, it is an attempt to re-imagine entrepreneurship and reunite capitalism with its moral roots in the continent underpinned by the following values:

1. **Sense of Progress and Prosperity:** Africapitalism is predicated on the creation of social wealth in addition to the pursuit of financial profitability. Wrapped around both social wealth and financial profitability is a sense of progress and prosperity, which goes beyond just material accumulation but also, includes psycho-social human wellbeing. In that regard, progress and prosperity is not just the absence of poverty, but the presence of conditions, which make life more fulfilling (e.g. access to quality education, health, social capital, democratic institutions, et cetera). This sense of progress and prosperity is nowhere needed more than in Africa riddled by extreme negative human conditions, which the Africapitalism project is committed to tackling through the promotion of responsible entrepreneurship and enabling business environment.
2. **Sense of Parity and Inclusion:** The benefits of progress and prosperity need to be equitably shared. It is very easy for the accumulation of wealth to be lopsided. Most liberal economies have also led to high inequality. Inequality has become the new scourge and burden of success and the new poverty. Inequality in Africa is not necessarily created by market liberalism, but the absence of it and the entrenchment of crony capitalism and corruption. Africapitalism is driven by a counter current of progressivism, which recognises that growth needs to be inclusive. In other words, it

aims to promote a form of entrepreneurship that strives to create financial and social wealth for all stakeholders, including but not limited to shareholders.

3. **Sense of Peace and Harmony:** The quest for “...investments that generate both economic prosperity and social wealth”, which is at the heart of Africapitalism, is primarily a quest for balance, harmony and peace. It is an acknowledgement that liberal market capitalism can lead to some form of socio-environmental imbalance, which could be dangerous to humanity. This sense of balance, expressed as the balance between economic prosperity and social wealth, could be further stretched to include the need to create a balance on the impacts of consumption and production on the ecological environment, society, and economy.
4. **Sense of Place and Belongingness:** If business decisions were to be based solely on efficiency, cost, and convenience, Africa will be at a significant disadvantage due to weak institutions, bad governance, and poor infrastructure. Unlike global capitalism, which is not fundamentally loyal to place and location – hence the ease to outsource and for capital to follow the least cost tolerant path – Africapitalism is a form of entrepreneurship, which seeks to meet Africa where the continent is in her development path. It is underpinned by a firm and explicit value of sense of place and belongingness, and treats Africa primarily as a place (and not necessarily as a market) with meaning and value to people’s identities. It strives to restore in managerial decision making the link between place and economics on one hand, and between place and self-identity on the other hand. This is core to the Africapitalism agenda.



Workshop Participants

Mr Noel LIHIKU – SADC Secretariat



Mr Lihiku did his tertiary education at the University of Malawi, Chancellor College and graduated in 2006 with a Master of Arts in Economics Degree specialising in Industrial Economics and Corporate Finance and Investment. Currently he is working with the SADC Secretariat as Programme Officer responsible for Industrial Clusters. His job primarily involves implementation of the SADC Industrialisation Strategy and Roadmap 2015-2063 through promotion of industrial clusters that promote value chains and value addition in prioritized regional sectors. The ultimate goal of the industrialisation strategy is to contribute towards industrialisation of SADC Member States, enhance competitiveness and achieve regional integration. The key achievements so far include development of regional profiles in agro-processing, pharmaceuticals, and mineral beneficiation. We are also undertaking studies to assist in developing regional guidelines and framework for cluster management.

Prior to joining SADC, Noel worked with Malawi Investment and Trade Centre (MITC) as Planning and Research Manager (2008-2013) and Investment Promotion Manager (2013-2018). Here he was involved in identification of investment opportunities in sectors, development of promotional materials and strategies and marketing Malawi to the outside world as an investment location. He has also worked as economist in the Ministry of Finance as well as Ministry of Gender and Community Development in Malawi.

Ms Abiola SHOMANG - African Union Development Agency (AUDA-NEPAD)



Ms Shomang is a knowledge management and communication specialist with over 10 years of experience. She holds the position of Senior Policy Officer Knowledge Management at the African Union Development Agency since 2014. In her role Abiola facilitates knowledge exchange and knowledge transfer among AU Member States and regional bodies. Since joining NEPAD in 2001 she has also held the positions of Officer in Charge for Communication and Advocacy and Communications Consultant within the African Union. She has designed and carried out large-scale information and advocacy campaigns. She is proud of the fact that she is able to add her voice to an African-led and African-owned development agenda; namely Agenda 2063. Abiola holds a Master of Arts in Political Communication, a Btech in Public Relations Management and a Bachelor of Arts in Social Science.

Dr Christian Herve DOUDOUHO - African Union Development Agency (NEPAD)



Dr Doudouho is the Deputy Director of Drug and Industry Promotion at the Directorate of Pharmacy Drug and Laboratories Skills. He is an International Expert in public health, industrial audit site control, industrial manufacturing, and pharmaceutical laboratories. He is responsible for approval of medicines registration, renewal and modification of the marketing authorisations for products of health (AMM), and import controls for the prior authorized imports. He manages Master certification procedures of drugs at the level of the UEMOA AND CEDEAO. He oversees Management of pharmacies, sale of health products and control of the circuit of the medicinal product -purchasing, sales, distribution as well as Management of health institutions.

Ms Barbara GLOVER - African Union Development Agency (AUDA-NEPAD)



Ms Glover works as a as a Research Fellow under the Science, Technology, Innovation and Industrialisation Hub of the NEPAD Planning and Coordinating Agency of the African Union. She works under the Prospecting Technologies unit in aiding African countries identify emerging technologies worth harnessing in Africa. She is a PhD candidate in Veterinary Tropical Diseases at the University of Pretoria and an Erasmus fellow. She chaired a session on youth and artificial intelligence at the SFSA 2017 which brought together panellists all over Africa and the US to speak on “An Africa we want: The future decides today”. This session addressed the need for harnessing emerging technologies and explored artificial intelligence and robotics, whilst opening up discussions on useful platforms for discussions of this nature and potential economic benefits of these technologies; as a way forward. She was also instrumental in organising the first of over 35 African nations

representing Africa at the FIRST Global world robotics Olympics in Washington DC for which she received a silver medal for international collaboration and support. She is the co-founder of an NGO called SISTAZSHARE which is involved in online training of women and the building of social entrepreneurship skills.

Mr Ndong ANGUE



Mr Angue is from Equatorial Guinea. He holds a Masters degree in Business Law and Taxation, Masters degree in Arbitration Law, Mediation and Advocacy; and Bachelor's degree in Private Law. His professional experience in law includes in 2015 being a Member of the organization of a workshop on intellectual property and the role of OAPI, CEMAC Regulatory Body of Intellectual Property; In 2016 he was a Member of the Delegation of Equatorial Guinea for the Training of Intellectual Property, held in Dakar, Senegal; and in 2017, Member of the delegation of Equatorial Guinea for the workshop organized by the VDA Law Firm in LISBOA, Portugal. He is a lawyer at the Luster of Equatorial Guinea since 2015, with 396 members. In 2016, he was appointed Legal Counsel and Chief of Staff of the Minister of State for Regional Integration, Equatorial Guinea; In 2017, he was the Acting Director of Regional Integration, Equatorial Guinea; and in 2018 he became the Chief of Staff of

the Executive Secretary of OCEAC Yaoundé, Cameroon.

Mr Christian Emmanuel A. SEGBO



Mr Segbo is an expert in trade promotion in service at the UEMOA Commission, based in Ouagadougou, Burkina Faso. He began his career at UEMOA in January 2013, after more than 27 years of professional experience in his country, Benin Republic. He has had a rich and diverse career in areas such as public accounting management, territorial administration, public and private business management, export promotion agency management, fair and trade shows organization. He facilitated a public-private dialogue committee for economic development and exports. During his national and international experiences, he has been in charge of carrying out private sector support programs financed by various donors including the World Bank and the European Union. Regarding Intellectual Property Law issues, he has informed the United Nations Trade and Development Organization (UNCTAD) on the theme of Trade, Environment and Development. He was also trained as a trainer

on this theme. He is particularly interested in the valorization of traditional pharmacopoeia products and the protection of traditional knowledge in UEMOA member states.

Dr Kofi BUSIA - West African Health Organisation



Dr Busia studied Basic Medical Science at the St Bartholomews and The London School of Medicine and Dentistry at Queen Mary, University of London. He subsequently earned a Bachelor of Science (Hons) degree in Herbal Medicine (Phytotherapy) and a Postgraduate Certificate in Higher Education from Middlesex University, UK, where he served as a much valued Senior Lecturer in Phytochemistry, Phytopharmacology, Herbal pharmacy and Transferrable skills for over 10 years. Kofi holds a Bachelor of Science (Hons) degree in Chemistry and a PhD in Biological Organic (Natural Product) Chemistry from Birkbeck, University of London. He taught briefly at the Chemistry Department of the University of Ghana before joining the West African Health Organisation, a specialised health institution of ECOWAS, where he is currently the Director of the Department of Healthcare Services. He has rare expertise in plant medicine/natural product research which he increasingly combines with

the teaching and practice of herbal medicine. He has written widely on topical issues in public health and phytotherapy, and also authored four books: Fundamentals of Herbal Medicines (Volumes 1 and 2); Advanced Level and Senior High School Physical and Inorganic Chemistry, and Organic Chemistry for High Schools.

Dr Alphonse Mbuyi MULUMBA - SADC SECRETARIAT



Dr Mulumba (Senior Programme Officer HIV and AIDS) is a Medical Doctor, and a specialist in Medical Biology (University of Kinshasa, School of Medicine). He has a Master's Degree in Biomedical Tropical Sciences, and a Certificate in Advanced Research Methodology, (Institute of Tropical Medicine, Antwerp Belgium). As a Senior Lecturer and Researcher at the School of Medicine, University of Kinshasa, he is author/co-author of scientific papers in the field of Parasitology, HIV and AIDS. A result oriented professional with more than 20 years of experience in Public Health, including management, monitoring and evaluation of projects and operational research. For the past 12 years he has been working in the SADC Region, the most affected region by HIV and AIDS in the world, where he contributed to the development and the implementation of robust frameworks for HIV and AIDS, TB, Malaria, Sexual and Reproductive Health, and pharmaceutical programmes

across 16 developing countries in SADC. He orchestrated the revitalization of HIV Prevention interventions with special focus on vulnerable and key populations, including adolescent girls and young women (AGYW) and monitored the implementation of the regional HIV and AIDS Program. He has a proven experience working in variable multi-cultural, socio-political, and economic scenarios. He is able to forge solid relationships with partners and build consensus across multiple organizational levels and technically proficient with good grasp over English and French.

Ms Boitumelo MABUSELA - African Union Development Agency (NEPAD)



Ms Mabusela serves in Midrand, South Africa at the NEPAD Planning and Coordinating Agency as Personal Assistant; she also manages the library. Her main task is to advocate NEPAD by distributing its knowledge products to Universities and libraries. She has been with NEPAD since 2008 working as a Personal assistant in Strategy and Knowledge Management and established a library.

Prior to joining NEPAD, Boitumelo worked in Gauteng Provincial Legislature as Supervisor in Registry and Archiving and supporting the Secretary of the Parliament. Boitumelo holds a BA Degree in Communications, and a certificate in Public Relations and Advanced Development Management Programme. She is currently studying with the University of South Africa for a Postgraduate of Business Administration.

Ms Mwanja NG'ANJO - African Union Development Agency (NEPAD)



Ms Ng'anjo is a self-starter with 20 years' experience in communications, advocacy, knowledge-sharing, project management and partnerships management. Currently working as Acting Head of Communications for the African Union's Development Agency-NEPAD, she has successfully implemented a communications strategy that includes broad engagement with governments, development partners, regional economic communities and non-governmental organisations. Her expertise includes internal and external communications, media relations, brand communication, partnerships engagement, social research, project management and human resources management. She has also specialised in the development of research and media networks in all the regions of Africa.

Mr Ayalew Getachew ASSEFA - African Union Commission



Mr Assefa is a lawyer by training with over 13 years of experience in research, academic and professional practice on human rights monitoring and compliance with specific focus on the African human rights system, children's rights, nationality rights and statelessness in Africa. Being an LL. D candidate at the University of the Western Cape, he obtained LL.M in 'Human Rights and Democratization in Africa' from Center for Human Rights at the University of Pretoria, South Africa and LL. B from Mekelle University, Ethiopia. Over the past 13 years, he has worked with academic institutions, inter-governmental organisations, and national and international non-governmental organisations on issues related to protection and promotions of human rights. He is currently working as a Senior Protection Officer at the Secretariat of the African Committee of Experts on the Rights and Welfare of the Child, at the African Union Commission.

Ms. Mercy AN FOMUNDAM - African Union Development Agency (AUDA-NEPAD)



Ms. Mercy AN Fomundam is a Programme Implementation Officer at the Programme Implementation Office (PIO) at the AUDA-NEPAD offices based In Midrand-Johannesburg. She is a holder of an LLM in International Law from the Washington college of Law, American University, Washington DC, And an LLB in English Private Law from the University of Yaounde - Cameroon. Prior to holding this position, she was the Programme Officer - legal for the African Medicines Regulatory Harmonization Programme in the AUDA-NEPAD, where she and a consultant pioneered the development of the first ever Model Law on Medical Products Regulation for the African Continent that has been

adopted by the AU. she has worked for the United Nations Development Programme-Global Environment Fund (GEF) in pretoria, South Africa. She has also served as adjunct faculty member of the then Medical University of South Africa-MEDUNSA in Garankwa. South Africa. She also served as a manager in charge of contracts while working for AFRIMERICA Health Services Inc, in Beltsville Maryland, USA. Ms Mercy Fomundam is a Cameroonian from the North West Region of the country



Organizers and Presenters

Dr Nelson TORTO – The African Academy of Sciences



Dr Torto is the Executive Director of The African Academy of Sciences (The AAS). The AAS is a non-aligned, non-political, not-for-profit pan African organisation whose vision is to see transformed lives on the African continent through science. Under his leadership, the goals of The AAS are to promote partnerships, mobilise the African scientific community, lead science advocacy efforts and ensure research findings are incorporated into policymaking so that science remains at the forefront of the African agenda and is adequately supported to transform people's lives. At the core of his agenda is empathy; the stakeholder has to be part of finding the solution to their challenges.

Prior to joining The AAS, Nelson was the founding Chief Executive Officer of the Botswana Institute for Technology Research and Innovation. He was also the Founding Director of the Centre for Scientific Research Indigenous Knowledge and Innovation (CesriKi), credited with the establishment of the indigenous knowledge policy for Botswana. He has had an illustrious academic and research career and has graduated 19 PhD students during his tenure at the University of Botswana and Rhodes University. He is a Fellow of The African Academy of Sciences, Inaugural Fellow of the Botswana Academy of Sciences and a Fellow of the Royal Society of Chemistry (UK). He has a PhD in analytical chemistry from Lund University in Sweden, MSc from the University of Botswana and a BSc (Hons) Chemistry from the University of Manchester Institute of Science and Technology (UMIST) in the United Kingdom. He is a recipient of several international awards and has served in various capacities in African and international networks and organisations.

Professor Aggrey AMBALI - AUDA-NEPAD



Professor Ambali is currently serving as Head, Industrialization, Science, Technology and Innovation (ISTI), at the New Partnership for Africa's Development (AUDA-NEPAD) Agency, where he oversees development and implementation of programs in education, health, and science and technology. He has also served in other positions at the NEPAD Agency, including Director of Policy Alignment and Program Development, Coordinator of the African Biosciences Initiative, and Coordinator of Science and Technology for the Southern Africa region

Dr Janet BYARUHANGA - AUDA-NEPAD



Dr Byaruhanga is a qualified medical doctor and public health expert that obtained her postgraduate diplomas in public health research and Management Studies from the University of Edinburgh and University of Cumbria respectively has over 13 years of experience in international development with special focus in human and social sectors. Served as health policy officer at the African Union Commission since 2007 where she provided technical leadership and oversight in development and delivery of key strategic continental policy frameworks, programmes and initiatives geared towards strengthening the continent's healthcare delivery system, food security and nutrition, and promoting the social well-being and rights of women and children. Dr. Byaruhanga since 1st September 2017 joined the NEPAD Agency as a Senior Programme Officer-Public health. She is in charge of coordinating and facilitating development and implementation

of policies on health and medical products and ensuring their alignment with industrial development; trade; science, technology and innovation polices in advancement of the African Union's African Health Strategy and the Pharmaceutical Manufacturing Plan for Africa (PMPA).

Mr Fernado DOS SANTOS - African Regional Intellectual Property Organization (ARIPO)



Mr dos Santos is the Director General of the African Regional Intellectual Property Organization (ARIPO) – 2013 to date. He is currently reading for a PhD in the School of Laws at the University of Witwatersrand, Johannesburg, South Africa. He obtained a Master's Degree on Intellectual Property from the University of London, UK, a Postgraduate certificate on IP by WIPO Academy and the University of Turin, Italy and a Postgraduate Course on International Trade Law by the University Institute of European Studies and the International Training Centre of the ILO in Turin, Italy. He also possesses a Degree in Law from the University of Trento, Italy. Prior to joining ARIPO, he was the Director General of the Industrial Property Institute of Mozambique – from 2004 to 2012. He has also been a lecture teaching the following courses: Intellectual Property (Since July 2014) – Master Degree on Intellectual Property – Africa University, Mutare, Zimbabwe; Competition

Law (2007 - 2012) – Eduardo Mondlane University – Maputo; Industrial Property Law and Business Law (2005 - 2012) – Technical University of Mozambique – Maputo; Competition Law (2007 – 2009) – Beira Delegation of the Eduardo Mondlane University – Beira; and Intellectual Property Law (July 2006 – December 2008) – Apolitécnica University. In addition, he is a tutor on Distance Learning Courses by WIPO Worldwide Academy – Geneva - Switzerland.

Mr Outule RAPULENG - African Regional Intellectual Property Organization (ARIPO)



Mr Rapuleng is the Head of ARIPO Academy with Harare, Zimbabwe. He has a BSc. Information Systems from USA; a Diploma in Science Education from University of Botswana and a Masters in Intellectual Property from Zimbabwe. He acquired further training on Innovation & Innovation Policy from World Bank, and Strategic Intellectual Property Management offered by World Intellectual Property Organization & Harvard University, among others. Prior to joining ARIPO he worked at University of Botswana as an IT Analyst and later Acting Assistant Director of Commercialization, where he was involved in curriculum development, IP commercialization, part-time lecturing as well as developing software and hardware solutions for learners living with disabilities. He also worked as an IT Analyst at Philadelphia Coca-Cola at Philadelphia, Pennsylvania in USA for close to 4 years as part of the IT team at headquarters responsible for offering IT support to three states.

Having started with, and informed by IP studies from his first degree he established AdSense Consulting in Botswana through which he offered IP training when IP was utterly an alien concept. After graduate IP studies he developed more interest in, and started researching on IP and Public Health; Plant Varieties; IP & SMEs and traditional knowledge with conference papers presented on the topics. Also a qualified teacher, he taught science at high school 2 yrs. He served as a Member of national Research, Innovation, Science and Tech (RIST) Committee that advises Ministry of Tertiary Education, Science and Technology in Botswana on national human resource development issues; and Member of the ASRIC Research & Innovation committee of the African Union Commission.

Mr Said RAMADHAN - African Regional Intellectual Property Organization (ARIPO)



Mr Ramadhan, a Senior Patent Examiner at African Regional Intellectual Property Organization (ARIPO). Mr. Ramadhan holds a M.Sc. in Biotechnology Engineering from Graduate School of Engineering and Science, University of the Ryukyus, Japan as well as B.Sc. (Hon) in Chemical and Process Engineering from the University of Dar es Salaam, Tanzania. Before he joined ARIPO, Mr. Ramadhan was working at the department of Chief Government Chemist under the Ministry of Health and Social welfare, Zanzibar as Head of Forensic Science Section. Mr. Ramadhan joined the African Regional Intellectual Property Organization (ARIPO) in January 2011 as Patent Examiner. He was promoted to a Senior Patent Examiner in March 2016.

Mr Emmanuel SACKEY- African Regional Intellectual Property Organization (ARIPO)



Mr Sackey holds a Master of Philosophy degree (M.Phil) in Food Science and Technology with specialization in Product Development and Food Biotechnology, B.Sc. (Hons) degree in Chemistry, Diploma in Education (Dip Ed), Diploma in French Studies (DELF) and certificates in Project Management, Strategic Planning, Transformative Leadership and Feasibility Studies. He obtained the World Intellectual Property Organization (WIPO) Fellowship to undertake Six-month post-graduate studies in biotechnology and intellectual property at the Swedish Patent and Registration Office, Stockholm, Sweden in 2000. He has published several articles on IP and co-authored 2 books on TRIPS Agreement and Access to Essential Medicines as well as IP and Food Security.

He is a contributor of the book on “The Informal Economy in Developing Nations – Hidden Engines of Innovation” published by the Cambridge University Press in 2016. He also edited the Master in Intellectual Property Textbook on “Intellectual Property Law, Management and Practice – African Perspective” published in 2018. He has been instrumental in ARIPO policy and legislative developments on traditional knowledge, genetic resources, expressions of folklore and Plant Variety Protection. He is currently the Intellectual Property Development Executive at ARIPO, Lecturer at the Africa University in Mutare, Zimbabwe (Masters in Intellectual Property Programme), Kwame Nkrumah University of Science and Technology in Kumasi Ghana (M.Phil, Intellectual Property.) as well as a member of several Scientific and Research Associations.

Professor Kenneth AMAESHI – University of Edinburgh



Professor Amaeshi is Chair in Business and Sustainable Development and Chair of the Sustainable Business Initiative, University of Edinburgh. Kenneth joined the university in 2010. Following a career in management consultancy, he held positions at the Cranfield School of Management and the University of Warwick (Warwick Business School and Warwick Manufacturing Group, respectively). He was a Chevening Scholar, a Scholar of the International Centre for Corporate Social Responsibility, University of Nottingham, and a Visiting Scholar at Said Business School, University of Oxford (where he is currently an External Examiner). Kenneth’s research interest currently focuses on sector-level policies for sustainability and sustainability strategy in organisations.

He has an expert level knowledge of developing and emerging economies. He has an extensive network in Africa. He was recently a Scholar in Residence at the National Pension Commission, Nigeria, and is currently a Visiting Professor of Strategy and Governance at the Lagos Business School, Nigeria. Besides teaching and researching, Kenneth works closely with businesses and governments in Africa, Europe, and Asia. He leads executive capacity building engagements and consultancy projects in the broad areas of sustainable finance, sustainability strategy, leadership, ethics, and governance.

Professor Francisca MUTAPI – University of Edinburgh



Francisca Mutapi is a Professor in Global Health Infection and Immunity, co-Director of the Global Health Academy, Deputy Director of the NIHR Global Health Research Unit TIBA (Tackling Infections to Benefit Africa) at the University of Edinburgh and Senior Advisor to the Principal on Africa. She also holds honorary positions at the University of Oxford's Nuffield Department of Medicine and University of KwaZulu Natal's College of Health Sciences in South Africa. She trained as a biologist at the University of Zimbabwe for her undergraduate degree and at the University of Oxford for her PhD. Her research work focuses on the most important worm infection in Africa, schistosomiasis and has been translated into significant health improvements for millions of African children.

Apart from her scientific work, she currently sits on several international advisory, funding and expert committees including the African Academy of Science and New Partnership for Africa's Development's Alliance for Accelerating Excellence in Africa's advisory group, the WHO Africa Regional Director's independent advisory group and the UKRI GCRF Strategic Advisory Group. She currently chairs the UK's department of Health's National Institutes of Health Global Research (Groups) Funding committee.

Mr Josef GEOOLA - Ingentium Limited



Mr Geola holds B.Sc. Microbiology and M.Sc. Intellectual Capital Management degrees and in addition he is a Certified Licensing Professional. Josef is the Chief Executive Officer of Ingentium Limited an Edinburgh based firm specialising in Intellectual Property. Josef has 12+ years of experience in intellectual asset management. He was involved in one of the very first patent pool initiatives relating to seed and crop transformation technologies. An area highly which is highly patented by large agrochemical companies. Josef the IP team within an animal health organization specialising in the development and deployment of animal health technologies throughout Africa and Asia. He developed an "Incentive-and-Control" IP access model which allowed for the commercialization of technologies by private pharma companies in LMICs in a sustainable and affordable manner. He has advised on various IP audit, valuation and due diligence

transactions, including a \$6 billion IP acquisition transaction by a world-leading technology company. Josef founded Ingentium Limited in 2015 and currently serves as its CEO. As a commercial IP and intelligence company specialising in the life sciences, Josef and his team work with various clients, including large multinational corporations, governments and academia, to develop meaningful IP and business strategies, as well as help clients enhance and realise the value in their IP.

Professor Simbarashe RUSAKANIKO – University of Zimbabwe



Professor Rusakaniko holds a chair at the University of Zimbabwe's College of Health Sciences. He is the chairperson of the Department of Community Medicine, the Deputy Director of Clinical Epidemiology Unit, the Deputy Director of Clinical Epidemiology Recourse Training Centre Department (CERTC). He is a Senior Professor in Biostatistics and Epidemiology in Community Medicine and a Research Fellow in the Obstetrics & Gynaecology Department at the University of Zimbabwe. He holds a DPhil in Adolescent Reproductive health awarded by the University of Zimbabwe in 2003, and he also holds an MSc in Epidemiology and Biostatistics, a Diploma in Epidemiology & Medical Statistics and BSC Honours in Mathematics (Statistics). He currently manages 7 research grants on: Behavioural Sero-Status Survey, ZDHS Extended Data analysis, Adolescent Reproductive Health in the SADC region, National Adolescent Reproductive Health in Zimbabwe, Assessment of

TB Prevalence and Factors Associated with TB Among the Prison Population In Zimbabwe, Conducting a Health Service Availability and Readiness Assessment (SARA) in Zimbabwe and he leads TIBA Zimbabwe. He has worked on over 20 collaborative research projects and has published over 74 peer-reviewed articles.

Dr Vera Florida MUGITTU – University of Edinburgh



Dr Mugittu holds a PhD in Science, Technology and Innovation Studies from the University of Edinburgh where she is a Research Fellow working to improve diagnostic technologies for a better use of antibiotics in livestock farming in an international context. Dr. Mugittu's professional experience spans two decades of engaging with actors in different countries in Africa, Asia, Europe, USA and Latin America. Her major focus is to promote cross-learning and to stimulate demand and utilization of new knowledge, technology and innovation for rural growth. Between 2006 and 2007 she worked with the Ford Foundation and the Brazilian Government to design innovative (including technological) solutions to increase access to quality health and education in the Amazonia State. Throughout her carrier, Vera analyzed, promoted and lobbied for policy change to create a conducive environment for agribusiness in the East African Region. In 2009, Vera was involved in the policy and structural reforms towards harmonization of regional policies in dairy trade.

Between 2016 and 2017, Vera worked with the World Bank to analyze and later facilitated regulatory reforms to promote competitiveness in the livestock sector in Tanzania.

In 2000 Vera managed the 'Spin-offThrust' of the Swiss Agency for Development and Cooperation (SDC) responsible for collecting lessons from 6 SDC-funded projects in agriculture, health, infrastructure, water and education sectors, and facilitated cross-fertilization. In 2011, she was among the Country Coordinators responsible for compiling lessons from a 5-year DFID-funded £50M Research Into Use (RIU) program implemented in 6 African countries and in Asia and Latin America. Dr. Mugittu, is also active on climate change dialogues especially on adaptation and technology transfer in the context of developing economies. She actively engages with African governments, CSOs, the private sector and development partners at national, regional and international levels to advocate and practically build climate resilience and adaptation capacity for Africa's livelihood gains and economic growth.

Ms Anesu Alexia MAKOTOSE – Ingentium Limited



Ms Makotose has an Msc in Global Economic Governance and Policy, from SOAS, University of London and an LLB Hons, Law from Birmingham City University. Alexia is currently an Associate with Ingentium Limited where key roles include intellectual property management and analysis and undertaking policy reviews in the life-science sectors in sub-Saharan Africa.

Previously experience has focused on research in IP, Technological learning/ Industrial development in developing countries, including the impact of the TRIPS agreement on the availability and accessibility of human drugs in Sub-Saharan Africa.

Professor Takafira MDULUZA - University of Zimbabwe



Professor Takafira Mdluza is based in the Biochemistry Department, University of Zimbabwe as Professor of Biochemistry and Immunology. He is a Biomedical Scientist specializing in the Biochemistry and Immunology of Infectious Diseases including parasitic infections. His work concentrates on the biochemistry and immunological consequences of infectious diseases in endemic populations and immun-epidemiological studies of the relationship between defined immune responses and acquisition of clinically protective immunity. The aim is to characterize the effector mechanisms of both innate and acquired immunity to infecting agents such as parasites and co-infection with other agents, to understand how these mechanisms are induced and how they are regulated in order to promote parasite clearance without inducing immunopathology. He also conducts research oriented to the development and evaluation of anti-parasite vaccines. The

challenge has been worsened with co-infections in the same individuals; the research goal is to understand in detail the long-term impact of preventive chemotherapy in populations recommended to receive several rounds of treatment. Infection of man and animals by large parasites is extremely common throughout the world. This is particularly true for blood fluke parasites. Infections can be debilitating with children suffering the worst disease. The challenge has been worsened with co-infections in same individuals and lack of environmental development on clean water and proper sanitation. There is also need to research on the intimate relationship between human host and the parasites. Documented the need for ethical practice in biomedical research and contribution to public health. Development of policy to tackle some of the health challenges in Zimbabwe. Leading the team that developed the baseline surveys and data/information leading to National policy on Neglected Tropical Diseases in Zimbabwe. Monitoring and Evaluation of Mass Drug Administration (MDA) as a control initiative for the Neglected Tropical Diseases as well monitoring paediatric infection and advocating for MDA. He is a recipient of the Research Council of Zimbabwe National Outstanding Research award on Monitoring and Maintaining Health Population.

Dr Geoffrey BANDA – University of Edinburgh



Dr Banda is the Co-Director of Health and Innovation at the Innogen Institute (<http://www.innogen.ac.uk/>) and also a Lecturer in Global Food Security in Innovation at the University of Edinburgh's Science Technology and Innovation Studies Group (<http://www.stis.ed.ac.uk/>). He is a multidisciplinary researcher on the social, practice and policy aspects of life sciences innovation, regulation and governance, especially emerging technologies. With early training in biological sciences and research experience in rapid diagnostics of Salmonella, and genetic fingerprinting in fish, he later gained food manufacturing quality assurance and laboratory management industrial experience. After postgraduate studies in biotechnology - virology and advanced plant genetic engineering, he made a mid-career change and joined the financial services industry. His experience as a corporate banker spans commercial lending, credit risk management,

relationship management, structured trade finance, structured export finance and transactional banking. He crossed over to Social Sciences; his doctoral studies were on finance, innovation, and industrial development focusing on the financing of Zimbabwe's local pharmaceutical industry's antiretroviral drug production. His post-doctoral work covered African local pharmaceutical production and UK Cell Therapies and Regenerative Medicine commercialisation. He is currently actively involved in three research projects:

- Tackling Infectious Diseases for the Benefit of Africa (TIBA) <http://tiba-partnership.org/> an NIHR funded collaborative project between the University of Edinburgh and 9 African research institutions in Botswana, Ghana, Uganda, South Africa, Kenya, Sudan, Zimbabwe, Rwanda and Tanzania
- GCRF Inclusive societies: How to link industrial and social innovation for inclusive development: lessons from tackling cancer care in Africa <http://www.open.ac.uk/ikd/research/health-innovationand-equity/gcrf-inclusive-societies-how-link-industrial-and-social> . A collaborative research project with Open University, University of Sussex, KEMRI, Nairobi, Kenya, ESRF, Dar es Salaam, Tanzania, University College London and ICRIER, New Delhi, India.
- Improving root system architecture for enhanced drought tolerance and nutrient use efficiency in semi-arid agriculture of chickpea. A collaborative research project between the University of Edinburgh, Addis Ababa University, Ethiopian Biotechnology Institute at Ministry of Science and Technology, Ethiopian Institute of Agricultural Research and University of California-Davis.

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