



AEIP – Activity 2 Technology exchange – learning activity

Fairness in IP: summing up challenges and needs in the Africa Europe Partnership

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1 Introduction

1.1 Definition

Intellectual Property refers to the legal rights which result from intellectual activity in the industrial, scientific, literary, and artistic fields¹. The convention establishing the World Intellectual Property Organization (WIPO), concluded in Stockholm on July 14, 1967 (Article 2) provide that “intellectual property shall include rights relating to literary, artistic and scientific works, performances of performing artists, phonograms and broadcasts, inventions in all fields of human endeavour, scientific discoveries, industrial designs, trademarks, service marks and commercial names and designations, protection against unfair competition, and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields. The expression “industrial property” covers inventions and industrial designs. Summary, Intellectual Property can be defined as the **legal rights resulting from intellectual activity in industrial, scientific, literacy and artistic fields.**

Figure 1 Type of IP

Type	What ?	How?	Comment
Patent	New inventions	Application and examination	Only inventions can be patented and they will be disclosed to the public. The patent office will examine the patent application to determine whether the stringent requirements for a patent grant are met.
Copyright	Original creative or artistic forms	Exists automatically	Copyright includes, for example, literature, art, drama, music, photographs, recordings, broadcasts, etc.
Trade marks	Distinctive identification of products or services	Use and/or registration	Trade marks are distinctive signs or indicators of the source of a product or service, e.g. names, logos, colours applied to the owner's products or services, which distinguish them from products or services provided by competitors.
Registered designs	External appearance	Registration	Registered designs protect the external appearance of a product. They do not give any protection for technical aspects. They include new patterns, ornaments and shapes. To be officially registered, designs need to be original and distinctive. The artistic aspects of a design may also be protected by copyright.
Trade secrets	Valuable information not known to the public	Reasonable efforts to keep secret	This is an alternative to patents. Trade secrets cover information not known to the public. If the possessor of such information is careful to keep the information confidential (e.g. by signing non-disclosure agreements with

¹ World Intellectual Property Organization, WIPO Intellectual Property Handbook.



			employees/partners) he can sue anyone who steals it. However, trade secrets offer no protection against reverse-engineering or against competitors who independently make the same invention
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1.2 Importance of Intellectual Property

Rights on IP are an instrument used to **distribute the profits generated by ideas and technologies**. They can boost local industries and new technologies and inventions. Several economists defend the idea that removing impediments and abuses in the operation of IP Rights by flow of technology, would lead to economic development, as well as in countries with weak scientific and technological infrastructure, since it is an incentive for creating and improving national ecosystem that enable the production, access and use of knowledge. The core challenge is how best to achieve the appropriate balance between, on the one hand, providing incentives for innovation and creativity and, on the other hand, ensuring the availability of the inputs necessary for further innovation and affordable public access to the products that emerge² (Paris Convention, Berne Convention which will merge later to form the United International Bureaux for Intellectual Property Protection (BIRPI), the predecessor of the World Intellectual Property Organization (WIPO)).

2 Intellectual Property and developing countries

2.1 Background

Most developing countries lack national policy and strategy as well as strong institutions in the sphere of private, national, or regional ecosystem (public framework, national agencies, R&D institutions). Historically, pre-colonial legal arrangements were the first meeting with IP laws and those laws did not really have local and cultural roots³. After independence, laws promulgated still closely resembled to earlier colonial laws or those of former colonial powers⁴. Developing countries may then need to opt for different standards of protection than the ones that prevail in high-income countries that have different technological and financial⁵ capabilities. African policymakers need to seek holistic approaches to facilitating innovation and, in turn, to fostering socio-economic development in African nations⁶. Innovation is highly linked to the context. The policy targets, then, are how to foster innovative activities through private and public environment.

During 1960s, countries in Americas and India discussed reforms on international IP regulation that would help them access to technologies and boost their industrialization. During TRIPS negotiations (1989 –1990), some developing countries argued that stronger IP would harm their development prospects. TRIPS offers some flexibilities and stipulates that developed country Members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to Least-Developed Country (LDC) Members in

² Deere, The implementation game

³ Fink et Maskus, Intellectual property and development.

⁴ Deere, The implementation game

⁵ Fink et Maskus, Intellectual property and development

⁶ De Beer et al., Innovation & intellectual property



order to enable them to create a sound and viable technological base and article 4.5 of UN framework convention on climate change (UNFCCC, 1992), provides that developed country parties (defined as OECD members) shall “take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the convention. Nonetheless most technologies are in private hands and only indirect incentives could foster owners’ decisions in this direction. On another note, TRIPS flexibilities have been considerably circumscribed by the bilateral Free Trade Agreement (FTAs) and bilateral investment treaties (BITs) into which they have entered in which TRIPS-plus obligations are accepted, forcing those countries to adopt higher IP standards. This distortions in the global trade relations being perceived by several analysts as “reinforcement of existing inequalities”. For example, in many industries like pharmaceutical, global software, a handful of companies have market monopoly and developed countries corporations, research centres and individuals together held over eighty per cent of the world’s IP rights⁷.

2.2 Evidence of challenges in developing countries

2.2.1 National systems

In the developing countries, there are diverse IP systems. Some countries are members of regional organizations (ARIPO, OAPI) and others have only their own national IP laws and procedures. This situation is explained by economists as the difference of national economic circumstances and goals among countries. If in any country, ideas can have the power to accelerate the dynamics of innovation, however, innovation cannot thrive in an inadequate context. IP systems are not only rewards’ guarantee for intangible assets holders. The IP system can facilitate access to knowledge and invention, stimulating local innovation by resolving information asymmetries, facilitating international trade, and enhancing opportunities for access to finance⁸. Several reports and papers establish links between **inadequacy of the institutions, laws and incentives structures, the innovative system** in general with the economy needs and the late in the development and diffusion of technologies in Least Developed countries⁹.

There is a need to **reform, strengthen and adopt appropriate IP national system** in developing countries to provide incentives to invent in fields relating to technology (patents), business (trademarks), the arts (copyright) and others. This goal supposes to identify the key mechanisms that enable IP systems to support innovation and development objectives.

Above patents, all types of IP are relevant for innovation. Data show that in developing economies, utility models, and design and particularly trademarks have a particularly important place. An adequate IP system must integrate multiple constraints and objectives at the legal and economic level in the context of developing economies. This suppose a good interrelationship between instruments, national IP systems, institutions, laws, implementation directives. For example:

⁷ Deere, The implementation game

⁸ Organisation for Economic Co-operation and Development, National intellectual property systems, innovation and economic development

⁹ Ghidini, Peritz, et Ricolfi, TRIPS and Developing Countries



- With rights recognized through patents, trademarks and copyright, IP system should have substantial impacts on innovation without slow access to knowledge. Therefore, the right balance is important;
- Provide capacity building and funding joint firm–university research projects and build a suitable structure and funding of research and development with creation of low–cost research;
- Better understand and integrate the needs of traditional sectors.

There are several issues related to intellectual property in Africa. We will briefly discuss some of those issues in the following paragraphs.

2.2.2 Protection of traditional knowledge

The current century is characterized by the **globalised commoditisation of intangibles assets** as we are in the age of knowledge economy. Consequently, knowledge is increasingly becoming privatised and commercialized. Therefore, **indigenous peoples, local communities are deprived of their traditional knowledge without any compensation.** According to the World Intellectual Property Organization (WIPO), traditional knowledge can be defined as “knowledge, know–how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity”.

In Africa, major parts of traditional based knowledge are taboo/secrets subjects and leads to **loss of knowledge.** As an African proverb says, *“when an old man dies, a library burns”*. Traditional knowledge includes generally (symbols, art forms, crafts, rituals, knowledge of certain plants and animal products, traditional medicine, and spiritual functions). The principle behind those taboos is that “the knowledge must remain the community’s wealth”. By doing so, lot of knowledge are not improved and no benefit to the population as whole and those communities (rich of knowledge) does not thereby derive any advantage from their knowledges.

A common search of fairness would be finding incentives to disclose such traditional knowledge into public domain also ensuring those communities’ owner of novel knowledge, could, in return, earn rewards.

Generating reciprocity among knowledge providers and users underlines the needs of IP rights, furthermore, considering the growing demand for traditional knowledge–based products (example herbal drugs). However, traditional knowledge is rarely well–defined object and belonging to a precise author(s), to be protected by IP rights. Although, traditional knowledge models do not fit existing laws, thus significant work must be done to recognize to indigenous people, the full ownership, control, and protection of their cultural and intellectual property. Two forms of IP–related protection of traditional knowledge have been developed : i) **Positive Protection** (gives traditional knowledge holders the right to take action or seek remedies against certain forms of misuse of traditional knowledge) ; ii) **Defensive Protection** (safeguarding against illegitimate IP rights taken out by others over Traditional knowledge subject matter. It seeks to prevent others from using or securing IPR over traditional knowledge).



EXAMPLE 1 Indigenous Knowledge Protection in South Africa¹⁰

South Africa is one of the most biodiverse countries in the world (approximately 10 % of the world's plant, reptile, avian, and coastal marine species, and its people have a rich base of knowledge regarding traditional uses of these resources), with a rich tradition of Indigenous knowledge. While implementing the CBD and the Nagoya Protocol, South Africa also regulates Indigenous biological resources which are defined as "any living or dead organism of an indigenous species, any genetic material or derivatives of such organisms, or any chemical compounds and products obtained through use of biotechnology that have been altered with genetic material or chemical compounds. This regulation known as Protection, Promotion, Development and Management of Indigenous Knowledge Act (Act 6 of 2019). The purpose of the framework is to prevent the country from being expropriated of valuable resources without compensation. Access to South Africa's Indigenous knowledge is through permits obtained (rigorous process).

The Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019 intends to i) provide for the protection, promotion, development and management of indigenous knowledge; provide for the establishment and functions of the National Indigenous Knowledge Systems Office; ii) provide for the management of rights of indigenous knowledge communities; iii) provide for the establishment and functions of the Advisory Panel on indigenous knowledge; iv) provide for access and conditions of access to knowledge of indigenous communities; v) provide for the recognition of prior learning; vi) provide for the facilitation and coordination of indigenous knowledge-based innovation; and vii) provide for matters incidental thereto.

South Africa's commitment to Indigenous knowledge and Indigenous biological resources protection is evident in its efforts to take a multifaceted, innovative approach to this complex and seemingly intractable challenge.

EXAMPLE 2: Traditional Knowledge Protection: Example of India¹¹

Traditional Knowledge often passed on from one generation to the next using oral tradition. This is known as the Indigenous Knowledge System (IKS). Younger generations who are exposed to formal education are less interested in indigenous knowledge, viewing such knowledge as old-fashioned and primitive. Traditional Knowledge is at risk of becoming extinct.

India is a country which has been nurturing a tradition of civilisation over about 5,000 years. In 2000, the Council of Scientific and Industrial Research (CSIR), India, found that almost 80 per cent of the 4,896 references to individual plant-based medicinal patents in the United States Patents Office (USPTO) that year related to just 7 medicinal plants of Indian origin. In 2005, this number had grown to 35,000, which clearly demonstrates the interest of the developed world in the knowledge base of the developing countries¹².

Important initiatives have been taken in India include Traditional Knowledge Digital Library. This library provides information on traditional knowledge existing in the country, in languages and format understandable by patent examiners at International Patent Offices (IPOs), to prevent the grant of wrong patents. The project TKDL involves documentation of the traditional knowledge available in public domain in the form of existing literature related to Ayurveda, Unani, Siddha and Yoga, in digitised format in five international languages which are English, German, French, Japanese, and Spanish. Once the traditional knowledge is recorded in TKDL, legally, it becomes public domain knowledge. Under the patent law, this means that it is prior art and hence, is not patentable. Patent examiners could easily check this database and reject any patent application that might be a mere copy of traditional knowledge. Thus, it helps in preventing cases of biopiracy.

2.2.3 Protection of biological and genetic resources

The richness of the Africa's biodiversity is immense. Biomes, forests, grasslands, savannahs, mountains, with a quarter of world biodiversity, Africa is one of the best naturally endowed regions and a major world's reservoir of genetic resources. According to the WIPO, Genetic Resources (GRs) refer to genetic material of actual or potential value. Genetic material is any material of plant, animal, microbial or other origin containing functional units of heredity.

¹⁰ Margo A. Bagley

¹¹ Mangala Hirwade and Anil Hirwade

¹² Tripathi, S.K. Traditional knowledge—its significance. *Ind. J. Traditional Knowl.*, 2003, 2(2), 99–106



African ecosystem represents, since centuries, a great source of clinically useful plants, food crops, animal genetic resources, and, increasingly, also industrially useful resources, modern pharmaceuticals, and natural products. The Global Biodiversity Outlook–4 stated that Overall, biodiversity in Africa is threatened and continues to decline. The consensus acknowledges that the continent does not get the benefits of these resources. Genetic resources are important for several sectors:

- In agriculture, genetic resources maximise opportunities for improving productivity at global level. For African countries, genetic resources can improve food security. As regard developed countries, genetic resources are source of out-of-season horticultural crops ;
- In the field of medicine and public health, genetic represent a “**green gold**”. They are precious raw materials for the development of modern pharmaceutical products. Beyond this, traditional knowledge facilitates identification of useful genetic resources. Natural medicines contribute highly to primary healthcare and nutritional supplements. For example aspirin, vinblastine, penicillin are famous naturally derived products;
- In industry, genetic resources have many applications. For instance, microorganisms have the potential to reduce the pollution and energy consumption.

EXAMPLE 1 Ethiopian Coffee Trademarking and Licensing Initiative ¹³

Coffee is a great commodity traded in international markets and Ethiopia produces around 5% of world production and more than 30% of the total production of coffee in Sub-Saharan Africa. Coffee represents 35% of the total export earnings of the country and more than ten million Ethiopians belong to the coffee value chain. In 2004 the Ethiopian Intellectual Property Office (EIPO) collaborated with Light Years IP (LYIP) to initiate the Ethiopian Coffee Trademarking and Licensing Initiative. Ethiopia is registering trademarks in foreign markets for three fine coffee types: Sidama, Yirgacheffe and Harar, and then licencing importers and distributors of these coffees. The aim of this management strategy is to increase global demand for Ethiopian specialty coffees and create long-term wealth. Between 2005 and 2007, the Ethiopian government and Starbucks were involved in a legal dispute to own the name ‘Sidamo’ in the USA. Under the pressure of bad publicity, Starbucks dropped its claim for the trademark and finally signed the licencing agreement.

Ethiopia coffee exports is rising to record high even in recent years (7.35 million tonnes in 2019/20) and is Ethiopia’s most important export. However One of the major challenges the Ethiopian coffee sector is facing is that many coffee producers, mostly from the eastern part of the country are tearing out the coffee bushes and replacing them with khat, a plant with stimulant properties (U.S. Department of Agriculture) and the government is banning several exporters for defaulting on their contracts and hoarding beans.

This example is used as illustration of the role Intellectual Property to improve fair collaboration.

EXAMPLE 2 Phytotherapy for tackling diseases in Africa: the case of Api-Palu

Phytotherapy can be define as “the use of plant-derived medications in the treatment and prevention of disease”¹⁴. In many parts of rural Africa, medicinal plants are the most easily accessible and affordable health resource available to the local community. Phytotherapists use whole plants and their extracts for the prevention and treatment of disease as well as the promotion of optimum well-being.

Malaria is one of Africa’s greatest diseases (more than 500,000 death per year according to the World Health Organization). Dr Valentin Agon of Benin has developed Api-Palu, an anti-malaria drug treatment. Made from a natural plant extract of

¹³ Aslihan Arslan

¹⁴ Michael Heinrich



ELAEIS GUINEENSIS (oil palm) leaves. ELAEIS GUINEENSIS is a tropical African plant which gives an antimalarial substance after dehydration. Any pharmaceutical industry can transform this extract into a drug (syrup, gel capsule, oral ampule, etc.). This substance taken orally at 1 g per 10 kg of body weight destroys Plasmodium, causal agent of malaria. The efficacy of this extract has been confirmed¹⁵.

Api-Palu is significantly cheaper than anti-malarial drugs currently on the market and is sold in several countries in Africa mainly Benin, Burkina Faso, Chad, and the Central African Republic. Dr Valentin Agon invention is an example that Intellectual Property can ease African countries to benefit from richness of their immense biodiversity.

The previous examples have **highlighted the needs of fair agreements in collaboration involving African countries and developed countries in the use of genetic resources**. Nevertheless, efforts are increasingly made through number of instruments to provide more fair protection to African traditional knowledge and genetic resources. We could mention:

- A strategic plan for biodiversity adopted globally in 2010 by the Parties to the Convention on Biological Diversity to conserve biodiversity and enhance its benefits for people (Aichi Biodiversity Targets). We may recall that the 1992, Convention on Biological Diversity legal framework treaty that commits its Parties to the objective of conserving biological diversity, using natural resources sustainably, and fairly and equitably sharing benefits deriving from the use of genetic resources provide an operational document so named **the Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising Out of Their Utilization** ;
- The **FAO International Treaty for Plant Genetic Resources for Food and Agriculture** which aims to recognize the enormous contribution of farmers to the diversity of crops that feed the world; establishing a global system to provide farmers, plant breeders and scientists with access to plant genetic materials; ensuring that recipients share benefits they derive from the use of these genetic materials ;
- The **WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore**. This committee is a member states forum dedicated to access to genetic resources and benefit sharing; protection of traditional knowledge, whether associated with those resources; and the protection of expressions of folklore;
- The **International Union for the Protection of New Varieties of Plants (UPOV)**, an intergovernmental organization, established by the International Convention for the Protection of New Varieties of Plants (the “UPOV Convention”). The Mission of UPOV, based on the UPOV Convention, is: “to provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society” ;
- **Nagoya Protocol on Access and Benefit-sharing** which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way.

¹⁵ PCT WO 2007/129136 AI



2.2.4 Interactions between developing countries and developed countries in trade

At the international side, one of key question is how the foreign inventions can be profitable for developing countries and inversely how domestic invention can be promoted on the foreign market. The capacity of developing countries to resist to economic pressure coming from trade threats, lobbies can be constrained by their economic, political, and intellectual dependence on developed countries, International Organizations, and foreign corporations for investment, market access, development assistance, and political security¹⁶ or inadequate international agreements signed by governments only in the hope of reputational rewards.

Another question is, does national IP system really promote local innovation or rights holders are predominantly of foreign origin? Identify the kind of intellectual property instruments that work best for developing countries taking to account variety of circumstances and the fact that stringency of a country's patent regime is found to be irrelevant to trade in an aggregate of high technology products.

Besides, new technologies have demanded continuous adaptation of IPRs instruments. For example, is it better to ease IPRs laws on patents for technology imitation in developing countries or to stronger them and give incentives to innovation considering that stronger IPRs have significantly positive effect on total trade¹⁷ ? Empirical studies revealed a positive correlation of strong IPRs and total trade, but we cannot conclude that at the end, developing countries really benefit from it. Which scenario is more suitable? For example, if the IP system is weaker in developing countries, how can we prevent parallel importation in developed countries, considering that under a rule of international IPR exhaustion, after a good has been put on the market in any location, firms would fully lose control over further distribution, leaving markets open to parallel importation from foreign territories. However, the threats of copycats are weaker in poorest countries than developed countries and multinational trading firms do not base their strategies decisions on the IPRs of LDCs, then it appear that IP rights matter less in LDCs. Elsewhere, in a context of strong IPR system, imitation is difficult and then the rate of innovation can decline because firm expected higher profits per innovation, in doing so, they reduce their investment in R&D¹⁸. At the same time, many economists demonstrate that the quality of technologies transferred rises with stronger IPRs and in the context of competition between a foreign innovator and a domestic innovator.

Since Intellectual Property represents the ways by which knowledge and technologies circulate, African organisations (universities, other research organisations, firms) **may look for models that ensure the fairness of the use of IP Rights in international collaborations**. The efforts have then to be made to ensure a fair and equitable sharing of benefits arising from a technology transfer.

2.2.5 Other key issues of African countries

In the context of Africa, most African countries import technologies. The fairness of IP models is more important because several challenges undermine the fairness of collaboration between African countries mostly technology transferee and foreign countries as technology transferor:

¹⁶ El Said, Public health related TRIPS-plus provisions in bilateral trade agreements

¹⁷ Braga, Fink, et Sepulveda, Intellectual property rights and economic development

¹⁸ Branstetter et Saggi, « Intellectual Property Rights, Foreign Direct Investment and Industrial Development »



- The productive sector is characterized by inequality with few leading sectors and large informal sector. Indeed, the high level of economic inequality in developing countries cause a wide informal economy characterized by a lack of competition, polarization of policy pressure and economic performance skewed towards few sectors like agricultural and service. Hence, actors have very different needs, the IP agreements might be partial ;
- There is a weak co-operation between national universities and firms and given lack of access to skills and resources, private sector cannot sufficiently benefit from universities S&T ;
- The defect at institutional level (micro and macro level) which manifest itself by finance and trading market missing, inexistence of Technology Transfer Offices, collection agencies, scarce qualified human capital (lack of knowledge on IP systems in research centers, lack of lawyers, absence of IP experts advices assistance in partnership agreement drafting) ;
- Lot of local technology are not patented (not protected but already published), maybe also not patentable at all ;
- People have low awareness of IP importance ;
- Intersection with regulatory environment → Proof-of-Concept approach in Rwanda.

2.3 How to use Intellectual Property for mutual benefits?

Effectively transfer a technology required establishing rules principles and rules under which the collaboration will be organized. IP models contracts are defined as the set of rules that determines how IP rights can be established, protected, and exploited. It represents a guideline that parties involved in technology transfer should follow in practice to implement their collaboration and enforcing rights.

2.3.1 The Philosophy behind “fairness” concept

The notion of fairness refers to the capacity of different partners (IP holders and users) involved in collaboration to take proper measures which can ensure an effective collaboration. Experience suggests that implicit and explicit conditions include in agreements can generate unbalanced benefit sharing. An affective collaboration supposes that interests of parties involved in collaboration are aligned with clarity of ownership rights, transparent reporting, preventing abuse (limit influence, return rights to inventor or IP owner when the technology is not duly exploited) and transparent reporting. Without adequate legal capacity, contract negotiations can lead to unfair agreements. More specifically, a collaboration can be considered as fair when :

- The inventor of product or service, the people and other parties who contributed, are well rewarded considering real efforts, risks, and opportunity costs ;
- Users are maximizing their utility without abuse ;
- Social welfare is preserved ;
- The rights of other inventors are not violated, and future efforts are not blocked.



From the fact that parties do not have the necessary contracting or legal expertise available to negotiate the technical terms of such arrangements, several organizations promote fair agreements through models frameworks and guidelines which can help to negotiate better partnerships.

2.3.2 Example of good practice documents and guidance

2.3.2.1 Commission recommendation on the on the management of intellectual property in knowledge transfer activities and Code of Practice for universities and other public research organisations

The code of practice is a set of principles which public research organisations should implement in order to effectively manage the intellectual property¹⁹. The principles concern all kinds of research activities conducted or funded jointly by a public research organisation and the private sector, including in particular collaborative research (where all parties carry out R&D tasks) and contract research (where R&D is contracted out to a public research organisation by a private company). They are three main sets of principles:

- Principles for an internal intellectual property policy
- Principles for a knowledge transfer policy
- Principles regarding collaborative and contract research

2.3.2.2 DESCA Model Consortium Agreement

DESCA (Development of a Simplified Consortium Agreement) is a Model Consortium Agreement specially designed for projects which will be governed by a “Multi-beneficiary General Grant Agreement” (MGA) under Horizon 2020, notably “Research and Innovation Actions” and “Innovation Actions”. This model which propose a reference framework for project consortia that could be adapted to each case to in order to suit specific features of each single project. The purpose of this model is to balance the interests of all participant categories and all types of project participants. To illustrate, the version 1.2, march 2016, proposed a model structured in 8 sections : i) Definitions ; ii) Purpose ; iii) Entry into force, duration and termination ; iv) Responsibilities of Parties ; v) Liability towards each other ; vi) Governance structure ; vii) Financial provisions ; viii) Results ; ix) Access rights ; x) Non-disclosure of information ; xi Miscellaneous ; xii) Signatures.

2.3.2.3 Research Fairness Initiative

COHRED, the Council on Health Research for Development, is a global, non-profit organization whose goal is to maximize the potential of research and innovation to deliver sustainable solutions to the health and development problems of people living in low and middle-income countries. COHRED provide tools and resources for negotiating fairer research contracts by giving to parties with limited expertise in intellectual property area, knowledge and tools ready for use. A guidance document called “Where there is no lawyer : Guidance for fairer contract negotiation in collaborative research partnerships” identify key issues which impede fair collaboration, equip readers with a deeper understanding of the issue and to guide readers through some of the main points to consider when contracting around each issue.

¹⁹ <https://op.europa.eu/en/publication-detail/-/publication/4cc4d955-3140-442e-b1e6-104abd0a5fd8>



3 Conclusion

Intellectual Property represents the ways by which knowledge and technologies circulate and play a significant role in Technology Transfer. In Technology Transfer collaboration, a set of rules and principles are established to determine liabilities and obligations of each parties involved. We can define IP models as the set of rules that determines how IP rights can be established, protected, and exploited. Each partner shall take proper measures which can ensure an effective collaboration. Therefore, the concept of fairness is important because the efforts must be made to ensure a fair and equitable sharing of benefits arising from a technology transfer. Fair IP models are even, an important issue in the context of Africa, where most countries import technologies. The table below summarises the strengths and the weakness that characterize African countries where challenges are likely homogeneous.

STRENGTHS	WEAKNESS
<ul style="list-style-type: none"> • Foreign technologies mostly not protected in those countries, opportunity for free use • A growing number of TTO's assisting researchers through programs, advise and sensibilisation • Growing star-ups in accelerator stage • Standards policies in development • Existence of donor supporter who fund knowledge transfer through partnership (training, methodology, accessing technology) • Regulatory freedom provides for means /asset in international R&D collaboration • Traditional knowledge is a potentially exploitable asset • Specific industries may have good R&D capability • Possibility to adapt existing technologies to local needs • Possibility to prevail in sectors where little investment is needed (e.g., software) 	<ul style="list-style-type: none"> • Wide informal economy • Weak co-operation between national universities and firms • Private sector do not sufficiently benefit from universities S&T • Unclear needs of markets • Lot of local technologies not protected but already available • Low purchasing power • Low awareness and low knowledge of IP systems • Low access to experts' advices in agreements drafting • Low access to relevant information about technologies already available for free, for low fees or competitive • Expensive fees of IP protection • Less capabilities to engage in cutting edge high tech research and patenting • Even if there is collaboration, a true technology transfer does often not take place (e.g., only production facilities)



4 Recommendation for policy makers

1. Promote the protection of local knowledge and technologies (developing countries have specific interests in the protection of genetic resources, traditional knowledge, and folklore. Intellectual Property protection should be introduced to cover traditional technologies, intermediate innovations, inventions, and other products of innovative activity (Juma and Ojwang, 1989).
2. Continue to put efforts in raising awareness and skills in Intellectual property and technology transfer fields through training program.
3. Encompass all actors interests, promote accountability and transparency with the aim to reduce the dominance of powerful players.
4. Consider research entities like universities, foster their active linkage. Increase linkage between researchers and industries in other to better fit the market needs.
5. Provide know-how, expertise and material supports (expert advice will help to enter in fair agreements with the transferor).
6. Foster participation of African innovation actors to transnational EU research programmes, such as Horizon Europe
7. Creation of an extension to model contracts like DESCA for the purpose of fostering fair technology transfer to Africa (at least two strands: commercial exploitation possibilities locally, and particularly learning e.g. in context of research);
8. In case of dispute on IP mandatory usage of cheap arbitration and mediation at European level
9. In case of successful transfer, contractually agreed upon support for commercialisation for African actors
10. Establishment of a mutual observatory to track progress, success and fairness of the tech transfer collaborations

Annexes

A.1 Interviewees

Name	Organization	Position
John M. Kagwa	ARIPO	Patent Examiner
Diana Adobea Owusu Antwi	Technology Development and Transfer Centre of university of Ghana	Research Development Officer responsible
Damian odimegwu	Intellectual Property and Technology Transfer Office – University of Nigeria	Director



Moses Dachariga Mengu	Danish Technological Institute	Project Director 6 International Centre
Sarah Anku	Anku.Anku At-Law	Senior Partner
Harmen Jousma	Leiden University	Professor
Alfred Radauer	IMC University of Applied Sciences Krems	Study Programme Director Management Studies

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