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HARMONIZATION FOR NATIONAL DEVELOPMENT POLICIES AND ICT PROGRAMMES WITHIN THE CONTEXT OF REGIONAL INTEGRATION



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1. Introduction

Developing the sector of Information and Communication Technology (ICT) remains a crucial element in socio-economic development in general and in the process of regional economic integration in particular. In addition, it constitutes a strategic priority for States in the sub-region in the fight against poverty and in promoting education at all levels. As a matter of fact, ICT contributes to economic growth by (1) increasing productivity in all sectors; (2) creating a conducive environment for market expansion beyond national borders and benefiting from economies of scale; (3) reducing costs and facilitating easy access to services, particularly in the fields of administration, education, health and banking; (4) facilitating access to research; (5) developing ICT-related products and services; (6) contributing to better governance, an essential ingredient for growth, through increased participation, accountability and transparency.

Embracing ICT gives broader possibilities of positive externalisation and encourages creativity, learning, and augments people's aptitudes to resolve problems. However, its influence on employment, on new types of exports and on direct foreign investments depends on a number of factors: "It is the interaction between connectivity, access, security of the network, capacities and competencies, the market structures and the management of enterprises, as well as the regulatory and commercial framework that determine the aptitude of enterprises in a developing country to effectively and efficiently participate in the information economy and to compete in the global electronic markets".

A number of ICT development initiatives have already been undertaken in Eastern Africa, particularly by the member States, the Regional Economic Communities (IGAD, EAC, COMESA), the African Union (AU), the Economic Commission for Africa (ECA), the International Communications Union (ICU) and the African Telecommunications Union (ATU), etc., in an effort to close the existing digital gap. These inter-state institutions encourage their members to complement the right of regional institutions by a component on "Harmonised Regulation of the ICT Sector". In this regard, the countries of Eastern Africa have registered steady progress along the path towards economic integration and the development of a common market.

In order to facilitate the harmonisation of their national sectoral policies, the Economic Commission for Africa carried out this Study with a view to examining the legal and regulatory regimens, as well as the national ICT institutional frameworks in each of the 13 member States and to compare the performance of the ICT sector vis-à-vis the best international practices.

2. Objectives

This study is in line with the decisions and recommendations on the lead projects of the Regional Action Plan for the Economy of Knowledge (PARAES) on ICT, the resolutions of the “Connect Africa” Summit, of the forum on e-government, of the Global Alliance for Information Technology and Development. The study is also part of a long process launched more than four years ago, with the definition by COMESA of a Regional ICT Strategy and it should culminate in enabling the sub-region to be equipped with the legal and technological tools that will enable it to dock into the information society.

The objective of this Study is to establish, in the community space, a liberalised common market for Information and Communication Technology (ICT), with total interconnection and integration of the national networks; and to orient the community towards an inclusive information society.

This will involve, among others:

- Establishing a clearer image of the prevailing situation in the ICT/telecommunications sector in the countries of Eastern Africa and making recommendations and suggesting solutions to the envisaged harmonisation in the sub-region;
- Assessing the various aspects through which the process of harmonisation in the field of ICT could constitute, for the countries of the sub-region, the basis for economic cooperation and integration in order to, on the one hand, consolidate efforts towards integration that are essential in attracting more investments in the private sector and, on the other, join efforts in reducing the digital dislocation the countries in the sub-regional are currently experiencing;
- Deepen and widen the member States’ integration process by adopting a sub-regional institutional framework.

3. State of ICT development and assessment of policies and legal and regulatory frameworks in the countries of the Eastern Africa Sub-Region.

The first remark to be made is the strong institutional and organisational diversity in the sub-region. This, unfortunately, leads to a situation whereby there are several disparities among the countries. These disparities are evident both at the level of policies (privatisation, competition) and from the technological point of view (infrastructure, connectivity, portability, roaming, international connections). The level of the regulation of the ICT sector is an indication of a country’s economic and political situation. In some countries, there may be no need for tough regulation, because the market is self-regulating. But in other countries, the markets are of a more complex nature, in which case it becomes necessary to intervene with a binding regulatory policy. The laws and the social structures vary from one country to another, depending on whether they are

liberally inspired, like in the case of Kenya, which has a long liberal tradition, or whether they are State-controlled, like in the case of Madagascar, or further still like in Burundi, where public tariffs are particularly controlled by trade unions.

Liberalisation of the ICT sector, accompanied by the creation of independent regulatory bodies, the restructuring of the sector, the instauration of competition, as well as privatisation, has come up with mixed results.

Lack of adequate national development plans in ICT: In some of the countries of the sub-region, the governments have not put in place any development policy for the ICT sector. Even in cases where such a policy exists, it is not, in reality, implemented. Furthermore, many governments do not come up with long term strategies by capitalising on the potential that new technologies can bring about. As a result of this, the social actors in the ICT sector usually do not obtain any assistance from the government. Most of the subventions mainly come from outside the country, thereby increasing their dependence on the donor community.

Regarding the institutional, legal and regulatory frameworks in the ICT sector, it has been observed that there is a wide difference in its application and implementation in the various countries. The existing regulations are not always applied, and when they are, the regulators may sometimes come under pressure. Such situations are perceived by the investors as risks that might retard the implementation of projects. In the majority of the member States, the legal framework does not provide for sufficiently clear procedures for its application. This lack of precise legal procedures indeed appears to be a major obstacle to the repression of offences. In addition to this, in some member States, the governing principles for the policies that should govern the implementation of the legal and regulatory framework are even never published.

Lack of ICT capacity: Even though the majority of the countries have set up regulatory bodies, some fields of the operational regulation still need strengthening, particularly with regard to transparency in the rules and procedures governing competition, the rules and procedures for granting licences, the rules and tariff structures for interconnection, conception and/or effective implementation of the procedures and of the financing of universal service/access, and the implementation of the procedures for service quality control.

Independence of regulatory bodies: Because of deregulation and the intervention of private actors in a sector that has been traditionally monopolistic, the regulation of ICT becomes a crucial stake. Absence of independent regulatory bodies is the source of these problems.

The new national regulatory authorities are generally confronted with problems of insufficient human resources and technical as well as financial capacity. The regulatory authorities still exist only on paper and where they are already functioning, their effective independence, in view of the provisions in place, is always subject to caution. For the

ones that already exist, the Study revealed that a wide gap exists between what the legal texts provided for and the reality on the ground.

Problems linked to the governance of the Internet: This concern exists both at the national and at the sub-regional level. At national level, the management of domain names is not yet handled by an independent organ in most of the countries. Worse still, in a country like the Democratic Republic of Congo, there is not even a NIC (Network Information Centre) that should come up with precise conditions for the attribution of a “.com” domain. As a result, it is impossible for an economic operator or a domestic association to be allocated a “.com” domain in a transparent manner.

Furthermore, some companies take advantage of this loophole to try and allot to themselves the management of certain domain names. For example, a company known as Rathbawn Computers Limited (RCL), a multinational company operating in Australia and the United States, with no connection whatsoever with Africa, was proposing to the ICANN, an international body that manages internet names and numbers, to manage the “.africa” domain.

The Infrastructures: The member States are at different stages in the implementation of ICT policies aimed at improving the infrastructure and services by improving efficiency and stepping up of investment.

Regional Level : Lack of regional policies mainly because of lack of financing from continental institutions such as NEPAD with the e-Africa Commission, and from sub-regional institutions like IGAD, EAC.

The regional framework for dialogue, which should handle problems of global nature, like in the case of the Council of Europe. The African Union Conference of African Ministers in charge of ICT, created in 2006, finds it very difficult to function and to make decisions.

Level of investment: Lack of a harmonised ICT policy framework continues to limit the region’s capacity to attract investments in regional and national operations in the field of ICT services.

This table enables us to make an initial classification as follows:

Country	National ICT Policy	National ICT Development Plan	National ICT Development Agency	Autonomous Regulatory Agency	Member-ship in a Regional Organisation
BURUNDI	<p>-1996: Beginning of process for restructuring the Telecoms sector, publication of sectoral policy.</p> <p>-Law governing ICT sector was promulgated Sept 1997.</p> <p>- Separation of Posts and Telecoms 1997.</p>	<p>e-Strategies being prepared 2002-2004</p> <p>(National Strategy for development of ICT Action Plan).</p> <p>Implementation of plans, programmes and projects is being studied.</p>	<p>A Directorate of ICT was created in 2006. It is charged with the implementation of ICT plans and strategies</p>	<p>- A Regulatory Authority : ARCT (Telecoms Regulatory and Control Agency), was set up late Sept 1997.</p> <p>- The Regulatory Agency is not independent. It is under the control of the Government, although Burundi liberalised its international Gateway</p>	<p>EAC COMESA CEPGL</p>
ERITREA	<p>There is no National ICT Policy defining the orientation of the Government in matters of development, as well as the attendant strategies</p> <p>- ERITEL Telecoms company was created in 2003. It enjoys the</p>	<p>ICT Development Plan does not exist either.</p>	<p>There is no National ICT Development Agency.</p>	<p>There is no Regulatory Agency.</p> <p>- Regulation falls under the Ministry of Communications.</p> <p>- Weakness: Lack of adaptation of the legal and regulatory framework, no competition; - lack of a law governing competition</p>	<p>COMESA</p>

	<p>monopoly of fixed and mobile telephone services</p> <ul style="list-style-type: none"> - No ICT Policy - Some attempts have been made to privatise the dominant operator 			- lack of protection for consumers	
SEYCHELLES	<ul style="list-style-type: none"> - Seychelles adopted a new Telecom Policy in 2003. -All is liberalised. - Definition of the Policy for the Development of ICT in Seychelles is based on consultations with all stakeholders. 	Existence of advanced e-strategies for the coming 10 years (2003-2010)	Coordination during the implementation of ICT strategies is done by the Ministry of ICT	The role of Regulator is assigned to a Division in the Ministry of ICT.	COMESA
DRC	<ul style="list-style-type: none"> - In 2002, a law on the creation of a Regulatory Agency for the Posts and Telecoms was promulgated. - The ICT sector is fully liberalised. - No formal ICT Policy with a vision has been adopted. 	No specific strategies for ICT development in form of Plan Projects and Programmes.	Implementation is according to the Sectoral Policy of the Ministry	A Regulatory Agency was created in 2002. It is known as DGACPT (General Directorate for the Central Administration of Posts and Telecommunications). It is controlled by the Government.	COMESA CEPGL
SOMALIA	Government situation has not allowed the definition of an ICT	No formal Plan or Strategies	It does not exist	It is planned to create a regulatory agency called Somali Telecom Association	COMESA

	Policy			(STA).	
COMOROS	The Government of the Comoros adopted an ICT Policy in form of a letter.	In 2004, The Comoros adopted ICT development strategies in form of programmes	Ministry of Defence, Territorial Security, Strategic Infrastructure and Communication	The <i>HCNIC</i> (High Council for New Information and Communication Technologies) is the autonomous public institution that is responsible for ICT Policy.	COMESA
ETHIOPIA	National ICT Policy has already been approved by the Government and the Parliament in 2007.	Strategic orientations already exist (National Information and Communication Strategies).	Non existent	ETA	COMESA
DJIBOUTI	Djibouti has a document titled "Strategy and Plan for the Exploitation of ICT", since 29 May 2002.	In order to implement the strategy and achieve all the objectives, Djibouti prepared a Plan of Action which covers a period of 10 years (2003-2013), in order to enable the population to have universal access to ICT by the year 2013	Ministry of Communication and Culture, in charge of Posts and Telecommunications	<i>ARTEL</i> (Telecommunications Regulatory Agency)	COMESA
MADAGASCAR	National ICT Policy exists, known as the National Policy on the Development of	Madagascar prepared a National Action Plan supported by UNDP	Ministry of Telecommunications, Posts and Communication	The <i>ARTEC</i> (Regulatory Authority for Communication Technology), as provided for	COMESA

	Information and Communication Technology)	in its ICT Programme		in Law 2005-023 of 17 October 2005, is the new Regulatory Agency that replaced the <i>OMERT</i> (Madagascar Board of Studies and Regulation of Telecommunications)	
KENYA	National ICT Policy exists since 2005 and has been reviewed on a number of occasions	Plan exists with a special Bureau in the Office of the President, and a Ministry in charge of implementing the National Policy.	Kenya ICT Board	CCK	COMESA, ECA,
UGANDA	National ICT Policy exists since 2006 and was approved by the Government and Parliament.	There is an Implementation Plan with two components: infrastructure and e-Gov.	National IT Authority - Uganda. (NITA-U).	UCC	COMESA, EAC
RWANDA	National ICT Policy exists since 2000 and was approved by the Government and Parliament.	Plan exists and is known as the NICI PLAN, with various projects and programmes.	RITA	RURA	COMESA,EAC
TANZANIA	It exists since 2005 and was approved by the Government and Parliament	Plan exists, but not very well developed	Non existent	TCRA	EAC, SADC

In view of the foregoing, it is quite clear that in the field of ICT development in Eastern Africa, the countries fall in three categories:

- countries that have not created the necessary tools for ICT development (clear policies on ICT, legal and regulatory frameworks, strategies for the implementation of ICT programmes, bodies for the implementation of existing ICT plans;
- countries which have ICT policies that are developed to a satisfactory level, but which lack the strategies for the implementation of ICT plans and therefore lack the organs for the effective implementation of the plans and programmes; and, lastly,
- those countries which have made efforts to define their policies, to prepare their plans and strategies, to set up regulatory agencies and bodies for the implementation of their plans for ICT projects and programmes; these countries have also implemented their plans and sub-plans.

4. The Harmonization case in Eastern Africa Sub-Region

There has been a general consensus on the need for harmonising the regulatory framework governing telecommunications basing on the model defined by almost all the regional organisations. Numerous efforts at national, sector and regional level aimed at establishing a harmonisation policy in this field, made within the framework of the African Information Society Initiative (AISI) launched by the ECA came up with tangible results.

The States of Eastern Africa intend to pursue permanent efforts aimed at progressively establishing an ICT common market within the sub-region. As a matter of fact, this means that all the States in the sub region, within the framework of their regional institutions, will have to harmonise their policies for regulating the telecommunications sector, to create wide common markets and inter-regional dynamics constituting forums for dialogue and analysis, with a view to attaining integration in the sector. In spite of the disparities between the various States, both at the level of policy (privatisation, competition) and at the technical level (infrastructure, connectivity, portability, roaming, international connections, etc.), a number of initiatives in pursuit of the desired harmonisation have been embarked on:

Cooperation has proven indispensable if the States are to make maximum use of the scarce resources in the field telecommunications. It is within this framework that the Heads of State of COMESA, EAC and SADC adopted a tripartite accord in the field of trade and the development of infrastructure on the harmonisation of policies and the regulation of the ICT sector within the region.

In addition, in order to facilitate the effective participation of the stakeholders in the ICT sector in the formulation of regional policies, several associations have been set up under the supervision of some Regional Economic Communities such as ARICEA (an Association of regulators) and COMTEL (a regional company) in the countries of COMESA (Common Market of Eastern and Southern Africa), and EARPTO (East African Posts and Telecommunications Regulators Organisation) in the countries of the East African Community (EAC).

Around the eastern and southern part of Africa, is the region comprising COMESA, a regional economic community made up of the member States of SADC and the EAC. The economic area known as COMESA (Common Market of East and Southern Africa) initiated a plan in 2003, aimed at the harmonisation of regulatory policies in the field of telecommunications. Agreement was reached on a common policy, on a basic law and on guidelines constituting the guiding principles for all the member States. COMESA adopted an ICT policy model, a model law for ICT and the guidelines on interconnection, licences, universal service, etc. In addition, an association known as ARICEA was created and it brought together the regulators of the information and communication in Eastern and Southern Africa.

The East African Community (EAC) is currently conducting discussions on a regional strategy regarding the regulation of telecommunications.

Recognition by the member States and other stakeholders in the East African Community of the need to promote the harmonisation and coordination of policies and strategies in ICT, with a view to creating a favourable atmosphere for commercial exchanges, enhancing collaboration in resolving trans-border political problems and the exchange of data in order to avoid the duplication of procedures, led to the development of a strategic framework and harmonised policy on e-government among the member States of this sub regional community. It was agreed that the main focus of this e-government strategy would be on customs and immigration, e-parliament, e-medical services, e-banking, e-commerce, e-tourism and e-meteorology.

A study on the harmonisation of the policies for regulating the ICT sector was successfully carried out and its results were adopted in January 2009. Harmonised laws on e-security are also supposed to be adopted during the period 2009-2010.

The EARTO, an organisation for the regulation of the posts and telecommunications sector was set up. It particularly studies the opportunities of harmonising the regulation of telecommunications services in Eastern Africa. Its latest activities concentrated on the sharing of the infrastructure and the effective implementation of cross-border interconnection. The organisation wishes to see its specific subjects handled within the framework of the HIPSSA Project. The member States have all adopted a legal approach for the interconnection, whose structure is similar, but which varies only in the details. Nevertheless, it appears that this is one of the fields within which the countries of the sub-region registered most progress towards harmonisation. The organisation also went on to finalise a potential agreement on the awarding of preferential licences for micro-regional services.

The HIPSSA Project (Support for Harmonization of ICT Policies in Sub-Sahara Africa) : The HIPSSA Project, an initiative of the International Telecommunications Union and the European Union, helps in the implementation of actions that are deemed as priorities through this reference framework under the objective entitled “Establishing harmonised legal and regulatory policies and frameworks at continental level”, in order to create a conducive environment for investment and sustainable development of competitive African regional telecommunications/ICT markets and infrastructure, and to promote access for all to this infrastructure.

The two major sets of actions are detailed here below:

a. Guidelines in the field of public policies:

Developing policy models for the entire continent in the field of:

- liberalisation and privatisation,
- creation of efficacious regulatory bodies,

- competitiveness,
- convergence,
- universal access and universal service,
- migration from analogue transmission to digital transmission
- preparation of common positions at international forums.

Deliverables

- Comparative Analysis of national and regional policies
- Policy model
- Methodology for harmonisation
- Mechanism for achieving common positions
- Strategy for migrating from analogue to digital transmission

b. Models of the legal and regulatory framework

- Develop a model law for telecommunications and ICT.
- Develop a model of a regulatory framework for telecommunications and ICT
- Offer support to ATRA (African Telecommunication Regulators' Assembly)
- Examine the need to create a regulatory organ for the entire continent.

Deliverables

- Comparative analysis of the national and regional legal texts regarding telecommunications and ICT
- Model law on telecommunications and ICT
- Model structure of regulatory institutions
- Model of regulatory measures in telecommunications and ICT
- Model licence

However, it should be stressed that although all these initiatives constitute a real evolution towards the convergence of policies in the field of telecommunications, they still do not send a strong signal from the States to the investors. As expected, in some cases, some operators are ahead with the implementation of the harmonised legislation. This was particularly observed in East Africa where an operator invested on cross-border infrastructure, thereby creating a single network covering three countries - Uganda, Kenya and Tanzania. In spite of the absence of a single consolidated framework in the region, the network was put in place and it will henceforth bring about the elimination of all the costs hitherto relating to roaming services for cross-border communication. It is also worth pointing out that the said operator, Zein, envisages linking all his networks on the African continent, with a view to eliminating roaming charges within the continent. One can imagine the savings made in terms of reduced costs resulting from such a single initiative if one was to look at the field of high capacity electronic communications. Hence the need to update the existing legal machinery (by updating and harmonising it) in order to

reassure the investors in telecommunications infrastructure, that the legal risk that has been so much dreaded in the past, is henceforth predictable and can be overcome before hand.

5. Sub-regional harmonisation Model : the case of the ECOWAS

Since 2007, the ECOWAS adopted a harmonised legal and regulatory framework, marked by the institutionalization of additional acts on telecommunications, which all the member States had to adapt into their respective national legislations. For the ECOWAS, this delay in transposing the adopted frameworks in ICT and telecommunications in Western Africa is attributable to lack of political goodwill on the part of the regulatory organs within the respective member countries. The adaptation of the frameworks adopted by ECOWAS and UEMOA (Economic and Monetary Union of West Africa) on information and communication technology, as well as telecommunications, remains a problem for the member States of the Community. Up until this date, only two member States have adopted the texts on the harmonisation of policies on telecommunications in the ECOWAS space. This model is based on the following logical framework:

The range of harmonisation models

Harmonisation is not a binary variable. There is a continuum between national autonomy and plain integration. Attempts by independent nations to achieve harmonisation must meet a balance between, on one extreme, a centralised authority to which each country would have to abandon its sovereignty on decisions relating to policy in the field telecommunications and, on the other extreme, the total conservation of national autonomy and national independence. In between these two extremes, there is a series of possible points of equilibrium. The decision may be referred to as a compromise between “harmonisation” and “subsidiarity”.

The above range of harmonisation models reflects the various distributions of the decision and the authority between three levels of authority: the competent minister at the national level; the national regulatory authorities (NRA) created in each country in their capacity as an independent regulator in accordance with the requirements in the General Agreement on Trade and Services (GATS) of the WTO (World Trade Organization); and the central supra-national authority called the Regional Telecommunications Authority (RTA) of the sub-regional community. Between these three centres of power, there is a level of relationship defined by the functions of consultation, recommendation, directive, implementation and appeal. In addition, there is another set of institutional structures which are not specific to the telecommunications sector, involving appeals and resort to general competence courts of law, to the authorities in matters of competitiveness, to the State prosecutors and to the governments.

a) 1st Model: Centralised Harmonisation

Centralised harmonisation demands the maximum abandonment of national sovereignty into the hands of a supra-national independent organ responsible for making decisions on sectoral policy and regulation, capable of making decisions that bind the member States and possessing the powers and an institutional framework that are required to make it impose its decisions, with powers of sanction if the need arises. In case there is disagreement between the national authorities on the adopted policy, the decision of the central organ is supposed to be pre-eminent.

The role of the Regional Telecommunications Authority (RTA):

In this model, practically all the power to prepare and implement the sectoral policy is in the hands of the RTA of the ECOWAS. Even though there is supervision by the Council of Ministers and, obviously, intensive and wide-ranging prior informal consultations, the entire telecommunications policy is prepared by the RTA. The RTA carries out public consultations in accordance with a transparent procedure, takes decisions and transmits to the NRA for implementation, its directives that are legally binding. In accordance with the agreement that created it, the RTA is bound to take decisions based solely on the dossier constituted during the public consultation procedure and must be guided only by the objectives of sectoral policy as stipulated in the legislation that established it. More precisely, the RTA should have full legal and practical authority to:

- Grant operating licences for all telecommunications services on all or any part of the territory of the ECOWAS space. In the conditions of these licences, it includes all the requirements that it may deem necessary in public interest, particularly those conditions whose objective is to safeguard competition.
- Manage and allocate frequencies and numbering in the spectrum over the entire area, in accordance with the best international practices.
- Review all local and national laws relating to the erection of masks and to transit rights, if it believes that they may be an obstacle to the achievement of the objectives of its telecommunications policy.
- Have the power and the choice in the field of regulation of the tariffs of the operators of licensed telecommunications networks and of service providers, with regard to the other terms and conditions of their national and international offers, in order to establish whether or not they are fair and reasonable.
- Collect the funds meant for the subventions needed for achieving the authorised objectives of the social policy, such as universal service.
- Ensure an orderly interconnection of the telecommunications networks and to intervene in the interest of the public, so as to ensure that the possibility of any subscriber to join any other service provider is not jeopardized.

- Represent the region in international bodies such as the International Telecommunications Union (ITU) and the World Administrative Radio Conference (WARC).

The role of National Regulatory Authorities:

They provide inputs to the Regional Telecommunications Authority (RTA) through consultations, based on the knowledge they possess on the conditions of their market and on the application of the adopted policies. The National Regulatory Authorities do not have independent decision-making powers in the field of policy making, but they possess the tools and necessary means to enforce and respect the policy agreed and established by the Regional Telecommunications Authority.

The role of the line ministries:

The role of the ministers is to attend meetings of the Council of Ministers. The Council of Ministers has the power to appoint the commissioners sitting on the RTAs and may terminate their appointments in case it becomes necessary. The RTA is endowed with an independent source of financing, obtained from the collections on licences and on regulatory taxes; and the Council of Ministers has the power to approve the budget and to make verifications. In so doing, the Council may have an indirect influence on the priorities of the RTA. Furthermore, a minister may appeal a decision of the RTA before a competent court.

b) 2nd Model: Distinct Competences

In the Distinct Competences model, a supra-national regulatory body is charged with the responsibility of regulating the telecommunications services between the States on the one hand, and between the supra-national body and the rest of the world on the other, while the national regulatory bodies are responsible for regulating telecommunications within each country.

Because there is need to coordinate the national policies and the international policy, there should be a legislation institutionalising this coordination. The powers, the structure and the voting rights of the coordination body could take several forms, tending towards equality or with primacy either with member States or at the level of the supra-national body. Moreover, this coordination body could either have decision-making powers or could be limited to only making recommendations.

Lastly, the budget and supervision of this particular regulatory body could be structured in various ways, reflecting the balance of power needed between the member States and the supra-national body.

The role of RTA and the role of the NRA:

In this model, the duties of regulation would not be divided out, but shared between the NRAs for each country, and the RTA. The NRAs would have the total range of the responsibilities, but their competence would be limited only to

telecommunications companies and to their provision of services would not cross national borders.

The NRAs participate in regional telecommunications forums. The RTA would have competence on companies whose activities and offer of services cut across the borders of the member States. They would also represent the region at international forums. As the authority is shared along these lines of competence, this model demands a strong institutionalised procedure between the NRAs and the RTA. Since telephone networks do not know borders, policies favouring one jurisdiction are often to the detriment of the policies of the others. The type of conflicts that may arise usually relate to interconnection charges and to the allocation of costs for purposes of tariffs. This model would necessitate the presence of a conflict resolution procedure.

The role of the line ministries:

The role of the line ministries is to establish, in their countries, the priorities and policies of their NRAs; to supervise the NRA; to grant licences; and to approve mergers and acquisitions of telecommunications companies within the limits of national borders.

This model corresponds to the structure of the regulatory system of the United States, where the Federal Communications Commission has competence over issues between the States and where, in each of the States, a body designated by the Federal Communications Commission, in most cases a public services commission, has competence over the domestic affairs in that State.

c) 3rd Model: Centralised policy and national application

In this model, the power to decide on the sectoral policy is vested in a supra-national body, which may issue executive directives that must be adapted into national legislation. The application of regulations and the repression of offences are entrusted in the national regulatory authorities, which are appointed and controlled according to the laws of the country.

Each country preserves its sovereign power to carry out direct regulatory functions as mentioned above, but is required to make sure that its national policies are in conformity with the overall recommendations of the regional policy that has been decided at the central level. Once it operates conveniently, this harmonisation model facilitates the application of a common policy throughout the region, while the member States retain the full responsibility to apply the regional directives by transposing them into their national legal system, depending on their constitutional requirements. But once it goes the wrong way, it enables the member States to ignore, retard or to interpret the regional policy in such a way that it may take a sensitively different aspect from one State to another, thereby thwarting the harmonisation efforts. To avoid such an eventuality, the supra-national authority responsible for defining the sectoral policy should be given the powers to sanction.

The role of the RTAs and the role of NRAs:

In this model, the RTA of the sub-region would define the sectoral policy and the NRAs would be charged with the responsibility of implementing it. As opposed to the two earlier models, the supra-national body acts as a policy-formulating body, which goes through a consultation mechanism to arrive at the policies that will be applicable throughout the region. It issues a directive for the NRAs of the member States, which are charged with establishing, applying and enforcing the regulations, by following the procedures that are provided for under the laws of their respective countries.

The role of the line ministries:

In this model, the line ministries must respond in their capacity as parties to the consultations of the RTA and the NRAs and they must also ensure supervision of the RTA through the Council of Ministers and the NRAs.

This model is similar to the one of the European Union: the European Commission establishes the policy and it issues legally binding directives, and it is the duty of the member States to adapt these directives into their respective national laws and regulations. In order to avoid a situation whereby a member State may ignore a directive that it may not approve of, the directives of the Commission are legally binding once they are issued in Brussels, even though a member State may not have adopted it. This is a decisive element in the structure of this particular model.

d) 4th Model: Decentralised Harmonisation

In this model, a supra-national body is set up, which acts as the central resource organ for competences and studies, financed independently from the rights paid by the companies licensed to operate in the country, or from other means such as license fees, tax on turnover, etc.

The role of the RTA:

In such a model, the RTA acts as a central pool for personnel and a secretariat for coordinating the policies of the NRA, offering training and competences, as well as consultative services to member States. Under this scenario, the RTA has no powers as a body, but could make any non-binding recommendations to the States.

In this case, there are several possible mechanisms for financing the RTA. One such example is the Eastern Caribbean Telecom Authority (Ectel). Ectel is an organisation created by a Treaty and financed by the national governments of the five (currently) member States. Its mission is to ensure the regulatory harmonisation of the telecommunications operations in this area. In so doing, it is independent and can also give advice on the objectives. It is financed from the rights paid for the utilisation of the frequencies. In this model, the RTA could help make substantial

economies by being a centre for competences at the disposal of all the member States, thereby avoiding the duplication of competences in the fields of accounting, engineering and achieving economies in each of the member countries.

The role of the NRA and the role of the line ministries:

In this model, most of the decision-making and policy elaboration power lies in the hands of the NRA and the ministries in charge of communications at national level. But, by legally obliging the member States to consult the RTA on policy matters and by concentrating means for studies on this aspect, the RTA can exercise significant influence and contribute to the harmonisation of policies, although it does not have any power to enforce decisions.

The most important advantage of this model is that it saves each member State from incurring expenses and from the constraint of having a team of experts that would be needed in all the important fields for ensuring an effective regulation of the telecommunications sector.

	Prepares the policy	Issues directives	Implements the directives	Imposes the directives in the countries	Plays the role of Advisor in policy	Grants licences	Controls the respect of licence obligations	Fixes the principles of interconnection	Fixes the tariffs for interconnection	Coordinates the interconnection charges	Manages the space and the frequencies	Fixes the technical standards	Fixes the types of authorised equipment	Appeals the decisions of the NRAs	Appeals the decisions of the ART					Represente les States d'Africa de l'Est
Centralised Harmonisation Model																				
RTA																				
NRA																				
Line Ministry																				
Council of Ministers																				
Distinct Competences Model																				
RTA																				?
NRA																				?
Line Ministry																				?
Council of Ministers																				?
Centralised Policy Model/National Application																				
RTA																				?
NRA																				?
Line Ministry																				
Council of Ministers																				
Decentralised Harmonisation Model																				
RTA																				?
NRA																				
Line Ministry																				
Council of Ministers																				

6. Evolution of the regulatory frameworks in Eastern Africa: Harmonisation Strategies and Priorities

In view of the small size of many of the African countries, the lack of a harmonised regulatory framework at the regional level constitutes a major handicap in lowering the prices of services associated with ICT and in extending the geographical coverage of these services. A series of new challenges are now emerging in the field of regulation, because of the different technological developments that have come up, particularly in view of the ever increasing convergence between telecommunications and the transmission systems. In general terms, regional integration will henceforth play an increasingly important role in the development of ICT, given the limited size of the market and the differences observed in investments and the regulatory frameworks that characterise a good number of the countries in the sub-region.

In view of the trans-border nature of the legal questions relating to the provision of ICT services, harmonising the responses to these questions at the sub-regional level is an absolute necessity. There is also need to stress the importance of the role of support to the countries that must be played by the regional economic communities, to ensure that the process is carried out smoothly at all the levels.

The current tendency of harmonising the ICT policies in Eastern Africa, consisting of both a harmonised legal framework that is in line with the appropriate legal and regulatory institutional mechanisms, and a general context that is conducive to good economic and political governance, is linked to a certain number of factors, namely:

- A review, in some of the States, of the regulation of communications services with a view to facilitating competition and innovation, so that the population can enjoy quality communication services at affordable prices: it is mainly proposed that the conditions for obtaining licences are made simple, that there is competition at the local level, that the consumers are properly protected vis-à-vis the service providers, that the notion of universal service is maintained, and that the possibility of portage of mobile telephone numbers is imposed.
- Harmonisation of the infrastructure: The relatively low level of equipment in use in the telecommunication networks is an obstacle to attracting investment from interested service providers. But, on the other hand, it provides an opportunity for investment, because, in actual fact, it is an indication that there exists some un-satisfied demand. The ICT infrastructure in the countries of the Eastern Africa sub-region can enable the creation of direct links between the member States, thereby reducing transit outside the countries of the sub-region and, as a result, creating the possibility of reducing telecommunication tariffs. It would be advisable that the regulatory bodies adopt a legal approach for the

interconnection, whose structure would be similar, but which would mainly vary only in the details.

- Security: A plan of action on the promotion of a more secure usage of the Internet by fighting the presence of illegal and dangerous contents on the world networks. Put in place directives for and examine the relationship between the Information Society, the management of the Internet and democracy.
- Harmonise and rationalise the utilisation of the radio-electric spectrum: The objective is to put in place an orientation framework for the utilisation of the radio-electric spectrum, while taking into account the economic, cultural, scientific and social aspects of the community policies, as well as well as considerations of security, of public interest and of freedom of expression. It is also about safeguarding the interests of the sub-region during international negotiations in the field of the utilisation of the spectrum.
- Creation of a Unified Telecommunications Numbering Space in Eastern Africa: in order to attract the interest of operators in constructing integrated regional networks with African Internet exchange points, and to contribute to increased competition and to provide the African market with ICT services.
- Developing a harmonised legal framework in the priority areas: e-trade, electronic data exchange, e-payments, protection of private data, etc.: It will involve adopting directives on certain legal aspects of electronic trade in the domestic market, with the objective of creating a coherent regulatory framework for the development of e-trade in the Common Market, based on the principles of free movement of services and freedom of establishment.
- Protection of rights and liberties and/or personal data: This will mean establishing a clear and stable regulatory framework in order to ensure both a high level of protection for the private life of individuals in all the member States, and the free movement of data of personal nature within the sub-region. All the information shall be used solely for the purpose it was collected for, shall be preserved for only as long as it is necessary and must be correct. By stimulating the consumer's confidence and by reducing to the minimum the differences between the rules for the protection of the member States' data, the directive must facilitate the development of e-trade.

The main challenges per priority area that the Eastern Africa sub-region must overcome, in order to ensure that ICT contributes fully towards the integration of the member countries, and also supports the actions aimed at the development of all the sectors of human activities, are listed in the table below:

Table: The priority areas	
Priority areas	Challenges
1. Creation of a conducive environment	<ol style="list-style-type: none"> 1. Rules of fair play for the regional telecommunications/ICT companies/market 2. Telecommunications/ICT policies and regulatory frameworks 3. Innovative policy of universal access 4. Integrated on-line strategies (e-Strategies) 5. Pertinent and important Telecommunications/ICT applications, services and contents 6. Integration into the information society and exercise of citizens' rights 7. Management of rare resources: frequencies, numbers, roaming rights 8. Security and reliability 9. Granting convergent licences
2. Harmonisation of communications tariffs within the sub-region	<ol style="list-style-type: none"> 1. Extending all activities to all the countries of the sub-region 2. Elaboration and implementation of a harmonised regulatory framework in Eastern Africa 3. Putting in place synergies between the stakeholders in the countries of the sub-region 4. Implementing an analytical accounting system in all the companies operating in the sub-region
3. Technological Convergence and Inter-operability	<ol style="list-style-type: none"> 1. Convergence 2. Normalisation 3. Inter operability (Interconnection, roaming, extended networks etc.) 4. Portability
4. Construction of Broad Band Infrastructure and reinforcing the African Internet Network	<ol style="list-style-type: none"> 1. Broad band infrastructure, such as the Fibre Optic (National Fibre Optic Backbone, Sub Marine Cable System, Backhaul, Wi Max...) 2. Reinforcing the African Internet Network (including the creation of exchange points -IXP Internet) 3. Technological neutrality and viability
5. Promotion of e-Trade	<ol style="list-style-type: none"> 1. Consecration of the principle of freedom of provision of all the services and products via electronic networks with some modifications to protect the consumer 2. Recognition of the validity of the electronic signature 3. Defining the obligations and responsibilities of service providers

6. The fight against Cyber Crime	<p>Elaboration of a policy that translates into:</p> <ol style="list-style-type: none"> 1. Adoption of new specific offences in ICT, 2. Adaptation of some offences and sanctions to the criminal responsibility regimen 3. Updating the criminal procedure to the current trends in ICT 4. Reconciling the exigencies of efficiency of criminal investigations with the respect for fundamental rights 5. Precision of the framework for effecting changes in the classic procedure in relation to ICT 6. Precision of the conditions of instituting procedures that are specific to cyber crime
7. Protection of rights and liberties	<ol style="list-style-type: none"> 1. Limiting the right of those in charge of collection, utilisation and transmission of data that is of personal nature 2. Setting new principles and rights for ensuring transparency in the processing of information 3. Creation of an independent administrative authority for guaranteeing the respect of the set principles and rights

7. Recommendations

In all the advanced countries, experience has shown that a harmonised regulatory framework can help in bringing about new services with high added value. The new regulatory framework must adapt the existing rules to the new situation in order to create a process for convergence, particularly with the evolution of technology. It is for this reason, considering the multiplicity of initiatives in the sub-region, and in order to ensure cohesion and harmonisation of the strategies and policies, that the Study recommends the following:

- Communicate the decisions on the sub-regional ICT programmes to the various regional organisations to which the countries belong, and redefine the guidelines for cooperation or collaboration, to ensure an effective regional harmonisation of ICTs;
- Ensure coherence of the legal community standards between the various institutions that generate the standards (EAC, COMESA, IGAD, etc.);

- Speed up the process of adaptation, in order to arrive at an integrated harmonisation of all the community texts in the field of ICT/Telecommunications, as quickly as possible;
- Set up a committee for the adaptation of the texts into the national legislation, by involving the concerned ministries, the regulators, the private sector and civil society organisations operating in the ICT/Telecommunications sector;
- Extend the harmonisation of texts to other important issues that have or have not been considered, such as the regulation of the convergence of telecommunications and the media, the harmonisation of the models of the management of domain names, intellectual property rights, freedom of expression and freedom of the press, cyber security, etc., through the creation of new regional standards wherever it is necessary.
- Revisit the current practices in the field of regulation, with a view to proposing mechanisms for adopting a sub-regional or even a regional regulatory system, as opposed to the current practices, particularly with regard to the development and utilisation of trans-border infrastructure;
- Put in place a “supra-national” regulatory structure that will be charged with defining the major directives and initiating regulatory policy, particularly on tariff studies, ratifying of policies and inter-connection tariffs, definition of margins, like in the case of the Brussels Commission. It is also a way of bringing about convergence, in the long run, of the national policies of the countries in the sub-region.
- Regional integration, at the ICT level or at any other level, must be imposed by the governments, because many new telecommunications companies seem to be falling back to themselves and to be more concerned about achieving their own national deployment objectives than investing in trans-border links, which they feel may probably not earn them immediate dividends.
- The governments of the countries in the sub-region should closely watch the telecommunications sector both at the general policy level and at the strategic level, in order to ensure that telecommunications and ICT are systematically put into use in the socio-economic development process of their countries, of their sub-region and of the African continent as a whole.

- Sensitise the parliamentarians, senior government authorities, the press, the media, the civil society organisations interested in public governance and ICT, on the importance of community texts.

8. Conclusion

Harmonisation of the policy and regulatory framework of the ICT sector in Eastern Africa will enable the creation of large ICT markets within the sub-region, more so since the ICT sector is transversal and may be considered as an inevitable platform in achieving the objectives of economic and social integration. This harmonisation must take into account the current commitments made by the member States at the sub-regional, regional and international level, for building an Information Society. It must also aim at defining the objectives and the major orientations of the Information Society in Eastern Africa, as well as complementing the current regulations in force in the member States and in the institutions of the sub region in the field of Information and Communication Technology. There is cause for optimism because the decision-makers understand even better the need to speed up investment in this sector, in order to have high capacity networks, so as to enable the operators, and more so the users, to make the continent benefit from the progress inspired by the digital revolution. The role of the major sub-regional organisations, particularly COMESA, the EAC and IGAD, is of prime importance in this respect. Capacity building in the associations of regulators, notably ARICEA and EARPTO, is also a pre-condition for them to assert their role as inspirers in the regional development of ICT through a harmonisation process agreed by the various member States.