CONTINENTAL WORKSHOP

ICT harmonization in Africa - How to monitor and evaluate it? - What are the next steps to better adapt to the challenges of digital transformation?

2-6 September 2019

Addis Ababa, Ethiopia

(Project output A1.1, A2.1, A2.7, A3.1, A4.4)

Agenda

Agenda	Day 1 - Context
07h30 - 08h30	**Registration**
08h30 – 10h00	**Opening Ceremony** (FR and EN) 1 **Welcome Note**: Mr. Moctar Yedaly, Head of Information Society Division, AUC 2 **Key Note Address**: EU Delegation to the AU Mr.Cheikh Bedda, Director - Infrastructure and Energy, AUC **3 Practical Information** **4 Group Picture**
30 min	Coffee Break
10h30 – 13h00	**Session 1: Context: The Digital Economy in Africa** Presentation by: Ms. Alison Gilwald, Research ICT Africa (RIA) **5** Historical Perspectives **6** Recent Developments in digital ecosystem **7** Comparison with the rest of the world
90min	Lunch Break
14h30 – 16h00	**Moderator:** **Session 1: (Con't) Context: The Digital Economy in Africa** 8 Open Discussion 9 Draft Conclusions by Rapporteur (RIA)
60 min	Coffee Break – (*Rapporteur Drafting)*
17h00 – 18h00	**Moderator: Mr. Moctar Yedaly (AUC)** **Session 2: Context: Harmonization** Presentation by: Ms. Katia Duhamel, PRIDA Expert **1.** African Union Commission Mandate 2. Definition 3. Articulation Policy Legislation Regulation **4.** Presentation of the working document

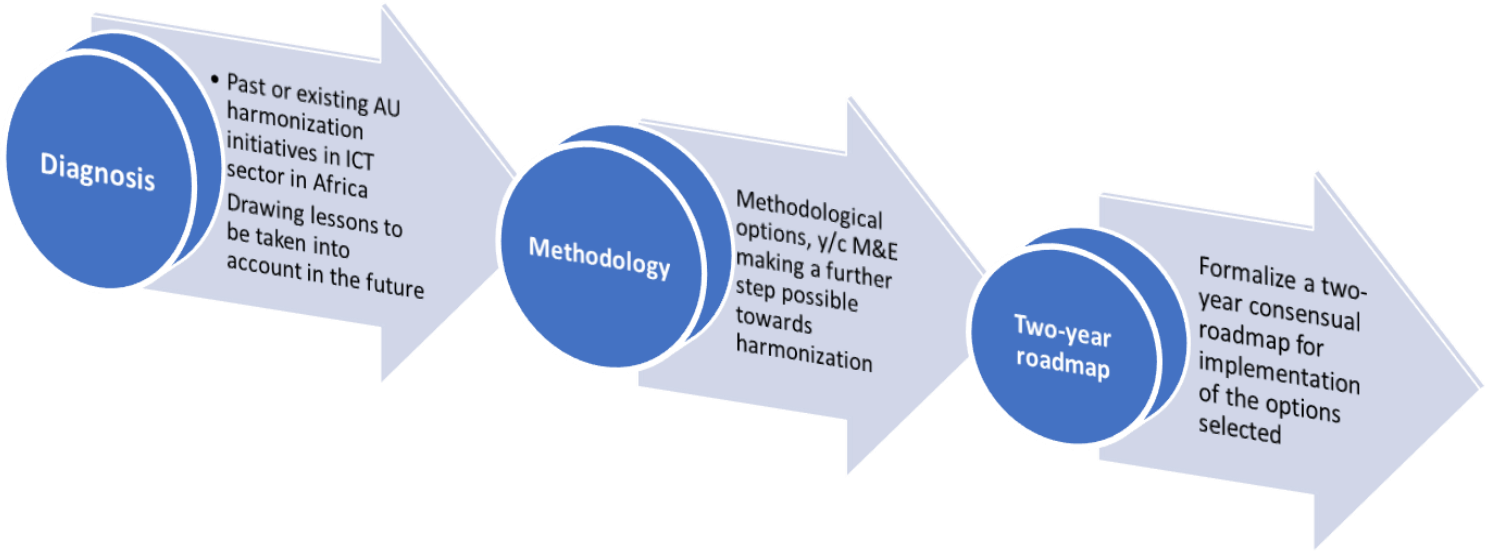
Agenda	Day 2 – Assessment
Session Chair: Rapporteur: PRIDA Expert, Ms. Katia Duhamel	
09h00 – 11h00	**Session 3: Regional Economic Communities (RECs)** 1 Past experience and common continental trends *(Presentation and Discussion)*
30 min	Coffee Break
11h30 – 13h00	**Session 3: (Con't) Regional Association of Regulators** 2 Past experience and common continental trends *(Presentation and Discussion)*
90min	Lunch Break
14h30 – 16h00	**Session 3: (Con't) African Union Commission (AUC)** 3 Past experience and common trends *(Presentation and Discussion)*
60 min	Coffee Break (*Rapporteur Drafting*)
17h00 – 18h00	**Draft Conclusions by Rapporteur** 4 Discussions 5 Adoption

Agenda	Day 3 – Methodology
Session Chair: Rapporteur: PRIDA Expert, Ms. Katia Duhamel	
09h00 – 11h00	**Session 4: Lessons learned** 6 Derived from assessment
30 min	Coffee Break (*Rapporteur Drafting*)
11h30 – 13h00	**Session 5: Methodology - Policy Legislation** 7 Presentation of Options 8 Selection
90 min	Lunch Break.
14h30 – 16h00	**Session 5: Methodology – Regulation** 9 Presentation of Options 10 Selection
60 min	Coffee Break (*Rapporteur Drafting*)
17h00 – 18h00	**Draft Conclusions by Rapporteur** 11 Discussions 12 Adoption

Agenda	Day 4 – Priority Areas
Session Chair: Rapporteur: PRIDA Expert, Ms. Katia Duhamel	
09h00 – 11h00	**Session 6: Priority Areas** **1** Presentations **2** Discussion
30 min	Coffee Break
11h30 – 13h00	**Session 6: (Con't) Priority Areas**
90 min	Lunch Break
14h30 – 16h00	**Session 6: (Con't) Priority Areas**
60 min	Coffee Break (*Rapporteur Drafting*)
17h00 – 18h00	**Draft Conclusions by Rapporteur** 3 Discussions 4 Adoption

Agenda	Day 5 – Roadmap and Implementation Plan
Moderator: Mr/Mrs _____ (AUC)	
09h00 – 11h00	**Session 7: Roadmap and implementation Plan** 5 2 years' roadmap and implementation plan **6** Discussions in parallel sessions for Legislation/Regulations
30 min	Coffee Break
11h30 – 13h00	**Session 7: (Con't) Roadmap and implementation Plan**
90 min	Lunch Break
14h30 – 15h30	**Final Report of the meeting** 7 Discussions 8 Adoption
15h30 – 16h00	**Final Remarks & Closing of the Meeting** Mr. Moctar Yedaly, Head of Information Society Division, AUC

Foreword



APPROACH AND EXPECTED RESULTS OF THE WORKSHOP

Both the workshop and the working document which serves as its basis are organized according to 4 different stages in order to aid the participants to mutually decide on the best ways and means to bring about progress in harmonization of policies, legislative frameworks and regulation practice in telecommunications/ ICT on the African continent, as well as evaluation of their impact.

1&2. Diagnosis :

1. Reiterating past or current initiatives within the African Union promoting harmonization of the telecommunications/ICT sector in Africa, and of
2. Drawing the appropriate conclusions as lessons to be taken into account in the future.

3 . Methodology

On the basis of this prior diagnosis, suggesting methodological options, in particular in terms of Monitoring and Evaluation, making a further step possible towards harmonization and evaluation of policies, legislation and regulation of the sector on the Continent.

4 . Two-year roadmap

A fourth and final stage should make it possible, at the end of the September workshop in Addis Ababa, to formalize a two-year consensual roadmap for implementation of the options selected.

Harmonization Context in African ICT markets

Agenda Session 2

African Union Commission Mandate & Organization

Agenda Session 2

Foundations

The African Union has :

- 17 objectives (Art.3 of the Constitutive Act of the AU) and,
- 18 principles with the view to achieve the said objectives (Art. 4)

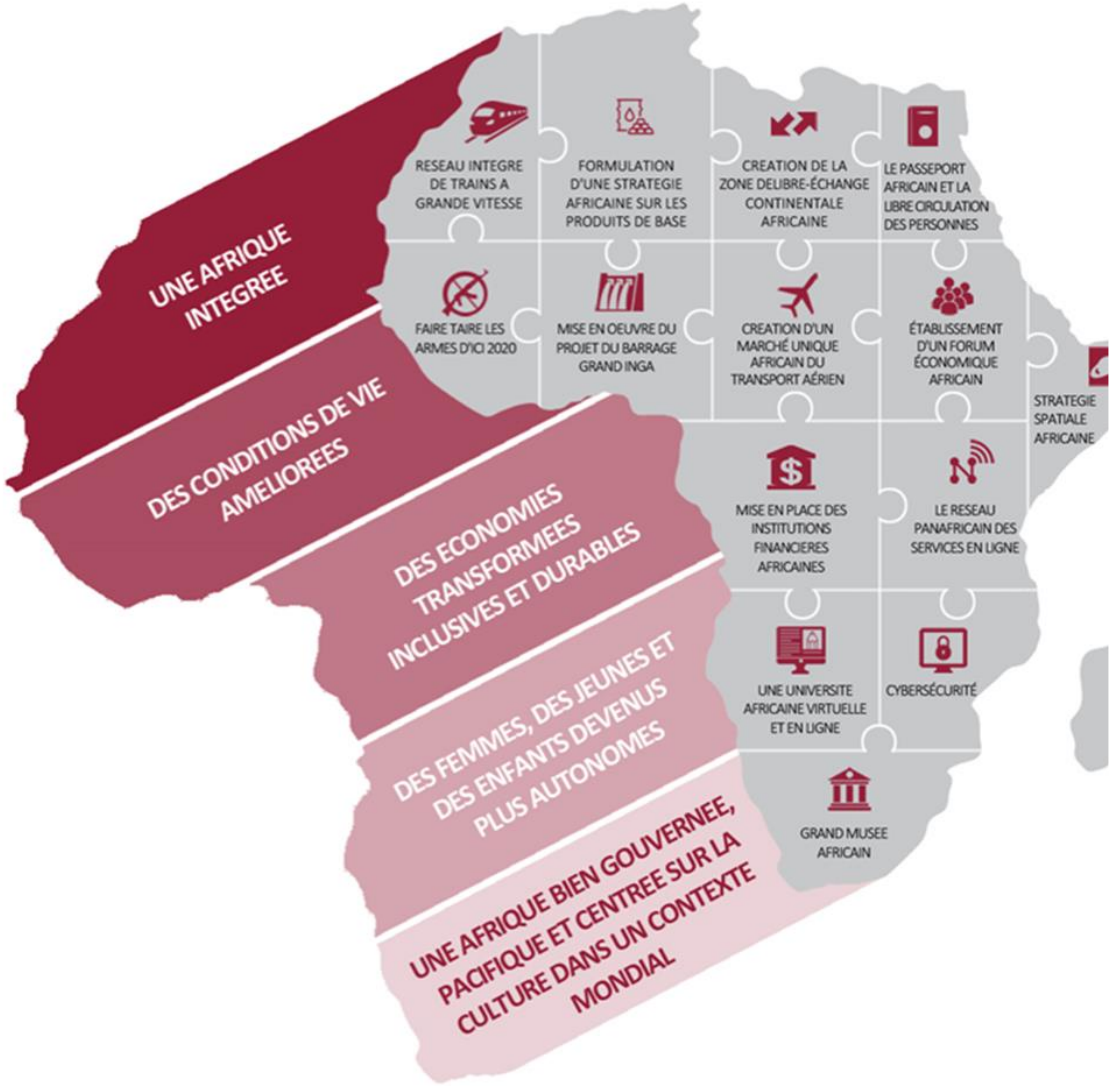
Generally speaking, the objectives of the African Union are aimed at bringing political, economic and social integration between member African countries and making the continent a better place for life

Foundations for harmonizing regional policies are in article 3 and 4 of the Treaty Establishing the African Regional Economic Communities (Abuja Treaty)

Abuja Treaty / Art. 3 - Principles	Abuja Treaty / Art. 4 - Objectives
a) The equality and interdependence of the Member States; c) Inter-state cooperation, harmonization of policies and integration of programmes; d) Promotion of a harmonious development of economic activities among Member States;	1. (d) To coordinate and harmonize policies among existing and future economic communities in order to foster the gradual establishment of the Community 2. (b) The conclusion of agreements aimed at harmonizing and coordinating policies among existing and future sub-regional and regional economic communities 2. (e) The harmonization of national policies in order to promote Community activities, particularly in the fields of agriculture, industry, transport and communications, energy, natural resources, trade, money and finance, human resources, education, culture, science and technology

Agenda 2063

- To ensure the realization of the pan-African vision of an integrated, prosperous and peaceful Africa, the AU Conference adopted on 31 January 2015 (1) a strategic framework, the **Agenda 2063** for a sustainable and inclusive socio-economic transformation of Africa



(1) Assembly / AU / dec.565 (XXIV)

A-2063 includes several Digital Flagship projects

Among 14 "flagship" projects to accelerate Africa's growth and economic development and promote a common identity, the Agenda 2023 identifies projects directly related to the digitization of society and the economy :

- Connecting Africa through a world-class infrastructure especially in the field of ICT
- Pan-African Virtual and Electronic University,
- African e-Passport
- Pan-African online services
- Cybersecurity and personal data protection project

AU Telecoms / ICT Competencies

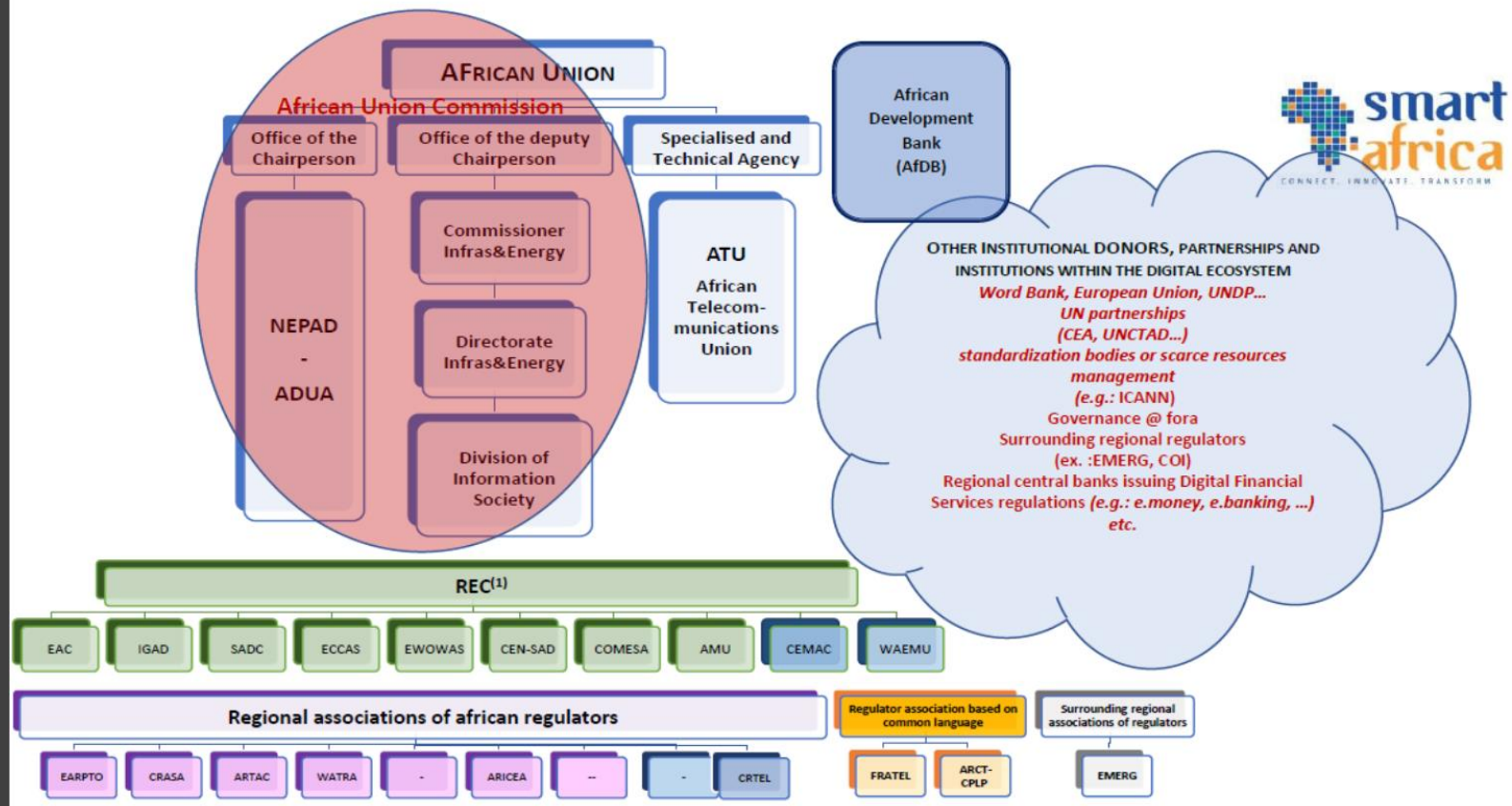
The African Union (AU) regulatory framework for ICT is composed of two categories of acts:

- **The primary acts**, signed by the States, and not by any of the institutions of the African Union, which are subject to ratification by member countries; e.g. :
  - The High-Level Policy and Regulatory Framework for High-Speed ICT Infrastructure of the New Partnership for Africa's Development ("NEPAD") for Eastern and Southern Africa 2006 ;
  - The Convention on Cybersecurity and Protection of Personal Data, known as the Malabo Convention
- **Acts of secondary law** adopted by the AU institutions (taken on the basis of a primary law act) , e.g. :
  - Decision EX.CL/434 (XIII) (1) of the Executive Council of the AU, which (i) endorses the AU Framework for Harmonization of Telecommunications and ICT Policies and Regulations in Africa and (ii) implement the Report of the Second Session of the AU Conference of Ministers of Communication and ICT, annexed to the 2008 **Cairo Declaration**.
- The starting point for AU initiatives in the telecommunications/ICT sector, in 2008, was the **Cairo Declaration**, combined with the AU Framework for Harmonization of Telecommunication and ICT Policies and Regulations in Africa
- On this basis African ministers responsible for ICT several times reiterated their commitment to pursue harmonization between 2010 and 2012 (2)

(1) EXECUTIVE BOARD Eighth Ordinary Session June 24 - 28, 2008 Sharm-El-Sheikh, Egypt EX.CL/434(XIII)
(2) See declarations of Abuja and Khartoum

Institutional Framework (AU)

- Within the AUC, a structure is mainly in charge of the ICT sector: the Information Society Division which is part of the Infrastructure and Energy Department.
- The NEPAD planning and coordinating agency (transitioning to the African Union Development Agency - ADUA) could continue to implement ICT-related activities. Its mandate is being finalized.
- The African Telecommunication Union (ATU) as an AU specialized institution with 47 African member states and 37 associate members including operators and private actors in the telecommunications sector coordinates most of the activities related to ITU. It contributes in particular to the formulation and implementation of the decisions of the ITU Plenipotentiaries.
- Regional Economic Communities (RECs)(1) are considered as pillars of the AU and collaborate closely with it. The Abuja Treaty specifically provide for the establishment of these relations, which are governed - inter alia - by the 2008 Protocol on Relations between the AU and the RECs;

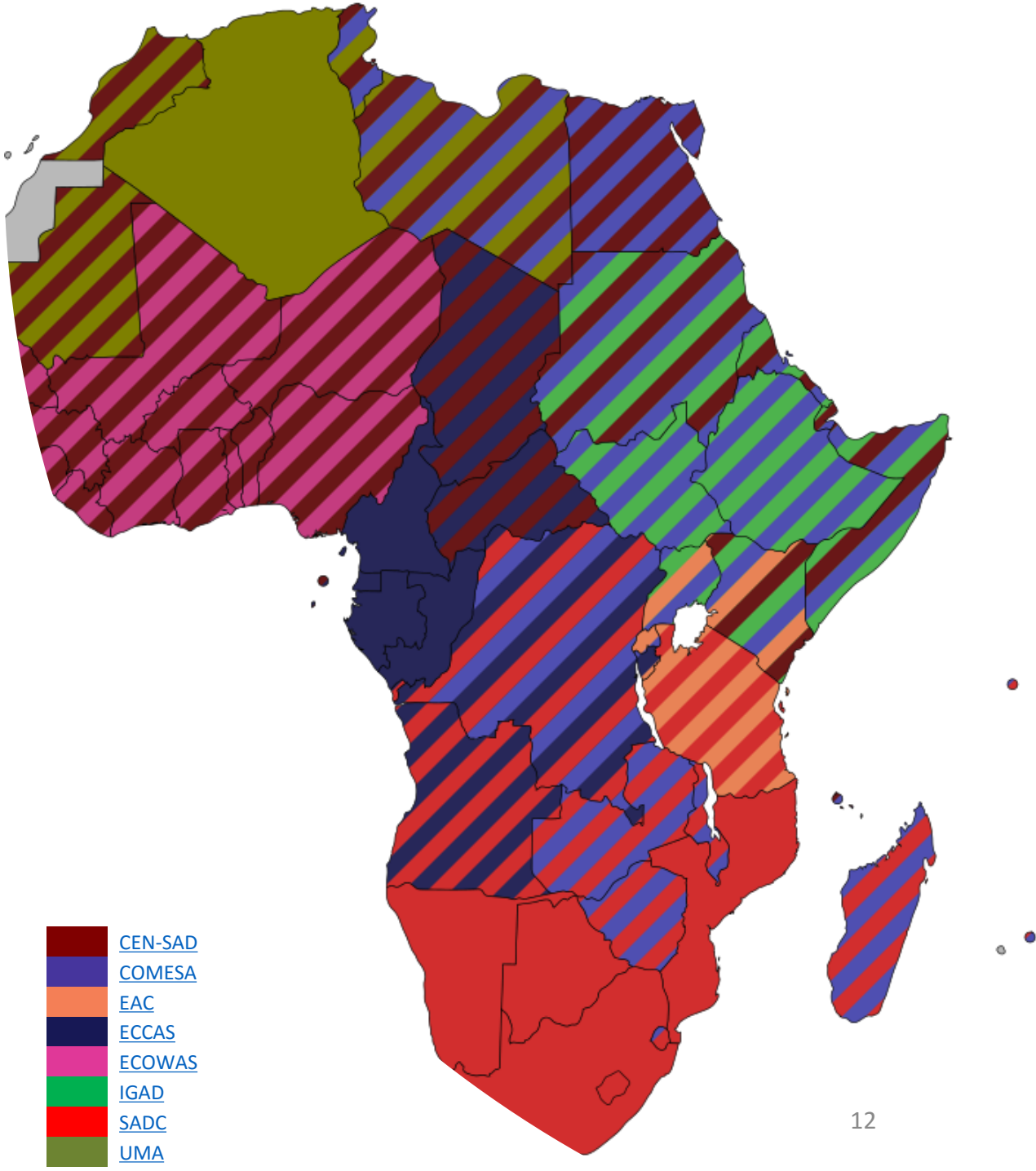


(1) The AU recognizes eight RECs (to become 7 if IGAD and EAC merge): EAC, ECCAS, ECOWAS, CEN-SAD, COMESA, IGAD, and SADC

Institutional Framework (RECs)

- The difficulties specific to harmonization on three levels (pan-African, regional and national) these difficulties being further exacerbated by the intricate nature of the jurisdictions and geographical perimeters involved. Thus in 2013, a study on regional integration in Africa could write that of the fifty-four African Union countries at that time, twenty-seven were members of two RECs, eighteen belonged to three groupings and one country was a member of four groupings. Only eight countries were a member of only one grouping;
- Source : Cinquante ans d'intégration régionale en Afrique : un bilan global, Ochozias A. Gbaguidi in Techniques Financières et Développement 2013/2 (N° 111) :

  https://www.cairn.info/revue-techniques-financieres-et-developpement-2013-2-page-47.htm



Institutional regional framework goes beyond the REC pillars officially by AU as official pillars …

- Several of these pillars also contain subgroups with tighter customs and/or monetary unions of their own:

Pillars	Subgroups
Economic Community of Central African States (ECCAS/CEEAC)	Economic and Monetary Community of Central Africa (CEMAC)
Economic Community of West African States (ECOWAS)	West African Economic and Monetary Union (WAEMU)
Southern African Development Community (SADC)	Southern African Customs Union(SACU)

- Other African regional blocs, not participating in the AEC (their members can be part of other regional blocs which do participate), are the following.
  - Greater Arab Free Trade Area (GAFTA) (also includes most Middle Eastern states)
  - Economic Community of the Great Lakes Countries (CEPGL)
  - Indian Ocean Commission (COI)
  - Liptako-Gourma Authority (LGA)
  - Mano River Union (MRU)

African Union Commission Initiatives (Overview)

Agenda Session 2

Several different approaches for reinforcing ICT policy, legislation and regulation harmonization have been used by the AUC up to day …

Co-ordination of the REC's "regulatory" initiatives

- e.g.: Between 2008 and 2013, the ITU project "*Support for the harmonization of ICT policies in sub-Saharan Africa*" (**HIPSSA**) contributed to the implementation of the aims of the Cairo declaration, by assisting the REC's and the Member States, under the auspices of the AU, to adopt harmonized policies and legislative frameworks on a regional level;

Adoption of a pan-African legislative framework

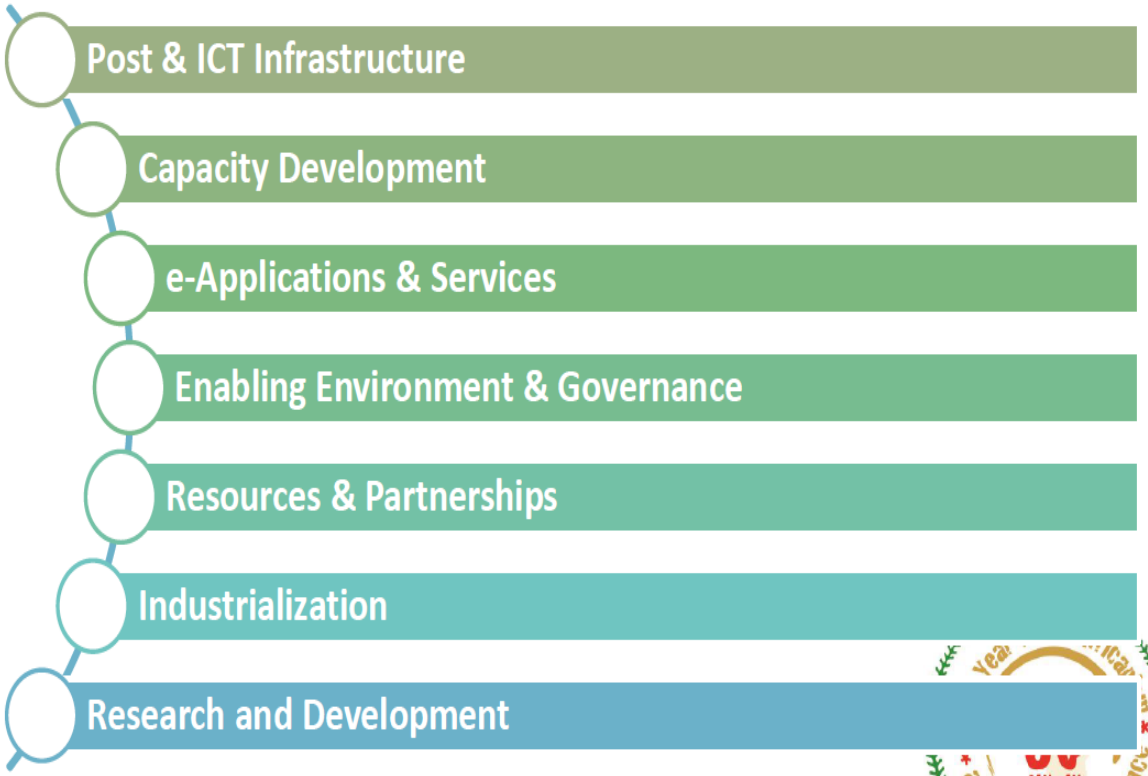
- in 2014, the AU took the initiative of a second approach by proposing that the Member States ratify the African Union Convention on Cyber Security and Personal Data Protection (**Malabo Convention**).
- This was the first initiative of a legislative type by the AU to go beyond the boundaries of regional legislative frameworks and adopt a global continental approach with the aim of supporting the development of a credible digital space in Africa

PIDA PAP (1) - ICT Sector					
Programme	**Description**	**Cost (MUSD)**	**Country**	**RECs**	**Region**
1. Enabling environment for ICT	This program improves the private sector environment for investment in broadband infrastructure	25	Whole continent		
2. ICT terrestrial connectivity	This program has two main components: (a) connect each country with at least two broadband infrastructures and (b) ensure access to submarine cable to all landlocked countries	320	Whole continent		
3. (AXIS) Internet Exchange Point Program (IXP)	The purpose of this program is to support and facilitate the establishment of appropriate Internet exchange nodes in Africa for maximum development of internet traffic	130	Whole continent		

…. with policies and programs that impact directly or indirectly the legislative and regulatory ICT framework in Africa

2012 PIDA (Program for Infrastructure Development in Africa)

- Establish a vision, policies, strategies and program for infrastructure development at the regional and continental levels of transport, energy, water and sanitation; and telecommunications/ ICT.
- Merge all continental infrastructure initiatives
- ICT PIDA's vision is to put Africa in a position to build an integrated information society and digital economy in which every government, business or citizen will have reliable and cheap access to information, communication and technology networks, including:
  - bringing ICT contribution to GDP from 5% currently to 10% in 2015
  - meeting the lowest cost of African broadband demand while expanding access to the connection and enhancing security;
  - encouraging intra-African online commerce
  - Intensifying the physical integration of networks at the regional and continental levels



AU's ICT policies and programs (continuation)

2014: The Comprehensive ICT Strategy for Africa (CISA)

- At the Conference held from 2 to 6 September 2012 in Khartoum (Sudan,) (informed by a lack of coordination at the continental level, the African Ministers in charge of ICT asked the AUC to develop an integrated, coherent and strategic ICT framework for Africa and to establish a coordination mechanism to harmonize programs in collaboration with NPCA, RECs, Specialized Agencies, AfDB and ECA.
- This recommendation adopted by the Executive Council of the AU gave rise to activities between 2013 and 2014 that led to a SWOT analysis of the African ICT landscape, a proposed global ICT strategy draft for the continent, a roadmap and an action plan.
- On May 16, 2014, in Addis Ababa, the 5th Meeting of Heads of ICT Units of the AUC, the NEPAD Agency, RECs and Regulator Associations adopted the Comprehensive ICT Strategy for Africa (CISA)

African Union Commission legislative & regulatory Initiatives

Agenda Session 2

Co-ordination of the REC's "regulatory" initiatives : HIPSSA project

Objectives and Perimeter

- Between 2008 and 2013, HIPSSA project was an important tool under the supervision of ITU to implement the harmonization objectives set in Cairo Declaration sub-Saharan Africa
- But it did not cover North Africa

Initial findings

- Geographical, political and cultural diversity of the regions
- RECs didn't advance to the same rhythm in the process of harmonization, what is also true for their States respective members

Methodology

- Select list of common priorities that were then implemented in four sub regional programs: East Africa; Central Africa, Southern and Western Africa.
- Highly participatory and inclusive method
- Flexible approach in assisting RECs to elaborate regional policy draft legislation or regional model legislation Stakeholders discussed the advantages and disadvantages of each model before finalizing and adopting the best suited to the needs and culture of the region
- Technical assistance in countries to transpose these regional acts into national legislative and regulatory frameworks

Field of activities

- Licenses and authorizations;
- Universal service and universal access
- Access / Interconnection
- Financial and technical audits
- Dispute Settlement
- Frequencies
- Frequency and spectrum policies
- Cybersecurity
- (...)

Adoption of a pan-African legislative framework Malabo Convention

Perimeter

Malabo Convention, adopted in June 2014, addresses the following topics:

- Electronic transactions,
- Data protection
- promotion of cybersecurity and,
- Fight against cybercrime.

Approach & Objectives

- Malabo Convention is the first AUC initiative to go beyond the boundaries of regional frameworks and to adopt a continental and globalizing approach to support the development of a credible digital space in Africa.
- It is also a pioneering initiative by coming out of a purely normative approach to online offenses by advocating for the implementation of a global cybersecurity policies and strategies.
- By working on the issue of online security in parallel with the issue of personal data protection, the latter being the new petroleum of the digital revolution, the Convention aims to build confidence in the African cyberspace by covering the main areas in this field.

Ratification

- Few countries have ratified the convention.
- To date, only 14 of the 55 countries in Africa have signed this convention: Benin, Chad, Comoros, Congo, Ghana, Guinea-Bissau, Mozambique, Mauritania, Rwanda, Sierra Leone, São Tomé and Príncipe, Togo, Tunisia and Zambia.
- And only five signatory countries — Ghana, May 5, 2019, Guinea July 31, 2018, Senegal, August 3, 2016, Mauritius, March 6, 2018 and Namibia, January 25, 2019- have ratified it for it to enter into force on their national territory.
- In accordance with article 36, the Malabo Convention can not enter into force until thirty (30) days after the receipt by the Chairperson of the African Union Commission of the fifteenth (15th) instrument of ratification

Ensuring a Common Understanding: definitions

Agenda Session 2

What is harmonization ? What's the point ? How it works

Agenda Session 2

Why ?

- The harmonization of policies and regulations is part of the tools for the integration of a countries community countries.
- Integration is primarily aimed at the transfer of national economic mechanisms on a wider scale:
  - creation of a free trade area (FTA) or a customs union (CU) in order to eliminate trade barriers and discriminatory measures.
- The economic component of any regional integration rests on the promise of creating a large internal market that can bring greater prosperity to member countries through:
  - increase in trade, which allows the specialization and localization of production where it is performed in the most efficient way;
  - increase in the size of the markets, which allows the realization of economies of scale, the intensification of competition (lower prices and incentives for innovation);
  - creation of a business-friendly economic environment (the reduction of exchange rate risks and the risk of protectionist policies as well as the harmonization of regulations are favourable to investment)
- However, regional integration has many other dimensions and challenges, for example: cohesion around shared values, collective autonomy for development and economic independence.
- This is particularly true in the Continent, where adherence to regionalism has its source in the pan-Africanism that has nourished independence.
- Given the crucial role ICTs play in the transformation of the African economy and society as a whole and in the development and growth of the continent, they are at the crossroads of all the preceding dimensions, economic and social.
- **As a result, decisions on the creation of an internal African ICT infrastructure and service market will also have an impact on the implementation of integrated development policies at the regional level.**

Which Definition ?

"**Harmonization**": process of bringing together two or more legal systems of the Member states of the organization in order to reduce or eliminate certain contradictions in the areas in which the regional organizations concerned have jurisdiction;

« **Harmonisation** » : processus de rapprochement entre deux ou plusieurs systèmes juridiques des Etats membres de l'organisation afin d'en réduire ou d'en supprimer certaines contradictions dans les domaines où les organisations régionales concernés ont compétence

How it works ?

- In practice, the concept of harmonization is not implemented homogenously as its definition might suggest.
- Depending on the case, it varies within a continuum of national autonomy and full integration.
- At one extreme, a supranational centralized authority to which each member state should abandon its national sovereignty. At the other extreme of national autonomy there is total preservation of autonomy and national independence.

… in theory?

The characterization of various models of harmonization is based on the central criterion of the distribution of competences.

Criteria	Monistic model	Subsidiarity model	Dualistic model	Soft law model
Competency distribution	Centralized competency at regional level	A predetermined distribution of the areas of competence attributed to the RA and NA (2), based on the effectiveness: it is a question of reserving to the RA the competences that the NA could exercise less effectively	Regional legislation and national legislation are strictly separate;	Regional legislative framework is non-binding and the RA can only recommend
Legal nature & application of the regional standard	The acts of the RA (1) have direct effect in the internal legal framework of the Member States;	The acts of the RA have direct effect in the internal legal framework of the Member States, subject to the powers which are attributed to it in the field of its competencies;	RAs issues directives without direct effect. In addition, their application requires transposition into the national legal framework.	RAs issues guidelines and objectives to be implemented in various fields (e.g. interconnection, licensing, right of way, infrastructure sharing, cybersecurity, etc.)
National scope of competency	The RAs are in charge of regulating the telecommunications sector on their territory, on the basis of supranational legislations;	The RAs are in charge of both the legislation and / or regulation practices of the telecommunications sector in their area of competence, but also responsible for the control and application of supranational regulations	The NAs are in charge of regulation and / or regulation practices of the telecommunications sector within the national territory; They decide on the transposition of the RA directives into the national legal framework;	The NAs are in charge of the regulation and / or regulation of the telecommunications sector in the national territory;
Need for regional jurisdiction	The creation of a supranational jurisdictional body is necessary :	The creation of a supranational jurisdictional body is necessary to judge the possible failures of the	The creation of a supranational jurisdictional body is particularly necessary to sanction any delay in the transposition of the directives	NAs have full jurisdiction over the legislation of the telecommunications sector;

(1) RA : Regional Authority
(2) NA : National Authority

… and for us?

- The harmonization process of legal systems on the African continent is more based on a subsidiarity model. It includes at least three levels, which makes it particularly complex and, in some respects, heterogeneous:
  - The pan-African level of the AU;
  - The regional level with RECs that are more or less integrated and more or less integrated and overlapping. In addition, there are various trade agreements or on specific themes but different geographical scope;
  - The national level;
- African regional organizations, including the AU, have an approach of harmonization based on legal and general policy considerations, rather than based on the harmonization of regulatory practices.
- **However, the RECs are very different in terms of the means, the mode of operation; and the intrinsic harmonization model itself.**
- Some regional organizations give their member states more "legislative" leeway than others. For example, this is the case, with COMESA and SADC, unlike in ECOWAS, WAEMU or CEMAC.
- The typology of standards (treaties, additional acts, legislations, directives, and decisions) and other non-binding acts (declaration, guidelines, strategic plans, roadmap, etc.) also varies considerably between RECs.

To take into account these differences, we propose in the previous paragraph that the term harmonization be defined in the least restrictive way possible on the basis of the following assumptions:

(1) Harmonization is a process of reconciliation between two or more legal frameworks of the member states in order to reduce or eliminate certain contradictions in the areas of competence of the organization;

(2) Harmonization may have different objectives and results in the national legal frameworks depending on the legal nature of the standard adopted at the regional level and how it is received at the national legal framework.

For example, it may be a standard having a direct effect (eg a legislation) or a standard whose implementation at the national level requires a transposition (eg a Directive) or a rule having a "semi-direct" effect ("primary" acts signed by States which become a direct source of national legislation, however, subject to ratification).

Depending on the regional standards used, the degree of similarity of the legislative and regulatory contents, regulatory practices and policies implemented at national level may vary.

(3) In Africa, at regional level with (AU) as the sub regional (REC), all the above harmonization methods coexist with the different effects attached to them.

Policy (s), Law and Regulation practice(s)

Agenda Session 2

The 3 levels of harmonization

There are several levels of intervention for a regional harmonization initiative in a sector such as ICT

1. Public policies (sectoral ICT policies
2. Legislation.
3. Regulation practices [or regulatory practices]

These 3 regional levels are identical to those used in the Member State intervention at national level, but their definition could be different at national and regional level.

Difficulties to reach common understanding may occur in some extent due to the inaccuracies of the translation from English to French and vice versa

Policy definition

(Regional & Continental level)

- "**Policy**": A document or initiative issued by regional organizations, institutions or entities that guide the actions taken in the ICT sector to achieve the desired result. This type of document or initiative leaves a considerable flexibility to the Member States, it has no binding value in itself unless decided otherwise;
- « **Politique»** : document ou initiative adopté par des organisations, institutions ou entités régionales qui orientent les mesures prises dans le secteur des TIC en vue d'obtenir le résultat désiré. Ce type de document ou initiative laisse une importante marge de manœuvre aux Etats-membres, il n'a pas de valeur obligatoire en soi sauf décision contraire ;

In the digital ecosystem, this type of public intervention, commonly known as "sectoral policy" at the regional or state level, is only one of the many facets of the governance of the sector at large.

The Internet ecosystem is therefore jointly governed by stakeholders like users; policymakers (global, regional + national level); civil society actors; technical communities like the Internet Society, technical standards bodies (e.g. IETF), organizations that manage critical resources (e.g. ICANN or registries), etc.

However, the debate is simplified here by only mentioning public policy interventions meaning:

- The formulation of the strategic directions that the government of a country decides to implement to develop the use of information and communication technologies (ICT) to ensure economic and social development of the country.

Réglementation & Régulation
Legislation & Regulation practices from French to English and vice versa

The English language unlike the French only knows the term "regulation", it does not distinguish the regulation in the meaning of "elaborating binding rules " of another meaning of regulation, that is to say the application of the said rules (we could translate by "fine tuning of the market")

In French , the word “Réglementation” is used to define the rules relating to a sector, i.e. : the mandatory requirements that must be complied with; Réglementation is therefore the set of rules governing the activities of a sector of the economy

These semantic differences are deep-rooted in very different legal cultures (common law versus continental law) which make almost impossible a fully accurate translation. So we choose to use :

1) for the process of elaborating binding rules :

- “Law “or “Legislation” in English
- “Réglementation” in French

2) For the process aiming at ensuring compliance with the rules by operators and adjusting supply and demand in different markets:

- “Regulation practices” in English
- “Regulation” in French

Law, Legislation Regulation Practices definitions

(Regional & Continental level)

- "**Law" or "Legislation"** "any document issued by regional organizations, institutions or entities having a binding value in itself [on Member states];
- **"Regulation practice"** means any document or initiative issued a priori by regional regulators or, as the case may be, by other regional organizations, institutions or entities that is not binding in itself [on Member states].
- "« **Réglementation**» : tout document adopté par des organisations, institutions ou entités régionales ayant en soi une valeur obligatoire [à l'égard des Etats-membres];
- « **Régulation»** : tout document ou initiative adopté a priori par des régulateurs régionaux ou, le cas échéant, par d'autres organisations, institutions ou entités régionales n'ayant pas en soi de valeur obligatoire [à l'égard des Etats-membres].

- The above definitions are only valid at continental or regional level as they could be different at the national level.
- For example, the initiatives of the national regulator are most often translated into binding measures (market analysis decisions and obligations of Significant Market Power (SMP) operators), even if there are other parts of its activity that are not binding (e.g.: data publication or data regulation).
- In this document, the term regulation refers to an initiative that has no binding value, adopted by regional regulators or, where appropriate, by other organizations, institutions or regional entities

Assessment

Agenda Session 3

Regional Economic Communities (RECs)

Agenda Session 3

Existence and scope of regional frameworks

(1) licensing, universal service and access, frequency management, numbering, interconnection, more recently cybersecurity & cybercrime, electronic transactions
and data protection

- There are many harmonized regional frameworks following different paths around 2 main options :
  - The REC has the faculty and has opted for binding directives that its member states must transpose in their national legal framework (e.g. ECOWAS, UEMOA ...)
  - The RECs have chosen to adopt model laws that its member states can use as a basis for updating their legal framework as well as non-binding guidelines that can be adopted and implemented by national authorities.
- Depending on the path chosen, the type of products and outcomes that can be expected from the harmonization process are different.
- Anyway, for harmonization to be effective, the first phase of regional harmonization must be followed by a second phase of implementation at national level which requires measures by the RECs to accompany the Member States.
- Despite a convergence in the issues of harmonization of the telecommunications / ICT regulatory framework in several the RECs continue to progress at different rates in the harmonization process, which is also true for their member states (see table below).
- In this context, some RECs have initiated a more or less formalized collaboration between them, e.g. : ,
  - Regional Strategy Paper and Regional Indicative Program between the EU and COMESA, EAC, IGAD and IOC (under the 10th FED 2008-2013)
  - WAEMU and ECOWAS benefit from several coordination mechanisms, including the Joint Technical Secretariat (JTS), and recently decided to launch a joint study (as funded by the European Union) for the reform of their regional ICT framework

REC	Policy Harmonization & Reg	Access / interco.	RegimeRegime Autorisation	Access and universal service	numbering	frequencies	consumers	Data protection	Electronic transactions	cybercriminality
EAC	✓			✓			✓			
ECCAS	✓	✓ 35				✓ 36		✓	✓	✓
ECOWAS	✓	✓	✓	✓	✓	✓ 37	✗	✓	✓	✓
CEN-SAD	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
COMESA	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗
IGAD	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
SADC	✓	✓	✓	✓	✓	?	✓	✓	✓	✓
UMA	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

Comparison of regional initiatives by thematic

(35), (36) et (37) to validate

	POLICY	LEGISLATIONS/LAW	REGULATION
ECCAS	— Regional ICT Development Policy for Central Africa (June 2009) — Framework for the harmonization of national policies and regulations. (June 2009) — Model laws: o Inter-border interconnections o Data protection o Electronic transactions o Cyber criminality o (…)		
ECOWAS	— Telecommunication / ICT Development Strategy in the ECOWAS region for the period (2016-2020 (June 2016)	— AA A/ SA.1 / 01/07 "Harmonization"; — AA A / SA.2 / 01.07 "Access & interconnection — AA A / SA.3 / 01/07 "Regime"; — AA A / SA.4 / 01/07 "numbering"; — AA A / SA.5 / 01/07 frequencies — AA A / SA.6 / 01/07 « Universal Devices » — Regulation C / REG.06 / 06/12 access to submarine cable landing stations, — Regulation C / REG 19/12/16 access of landlocked countries to national and international bandwidth — Regulation C / RE21 / 12/17 c" roaming"	Guidelines on the relevant market analysis methodology and recommendation on relevant markets

Breakdown of initiatives according to their nature / legal scope

	POLICY	LEGISLATIONS/LAW	REGULATION
SADC	— TRASA Guidelines o Interconnection Guidelines (May 2000); o Pricing Policy for Telecommunications Services (November 2000); o Licensing Guidelines for SADC Countries (February 2002); o Wholesale Pricing Guidelines for the ICT Sector (September 2002) o TRASA guidelines on harmonization of numbering for SADC countries (November 2002 and January 2003); o Consumer Protection Guidelines (April 2004). — CRASA o Guidelines and regulations for wireless technologies put in place by CRASA (2004/2006); guidelines on consumer protection and rights (2009)		

Breakdown of initiatives according to their nature / legal scope (2)

Implementation in national law

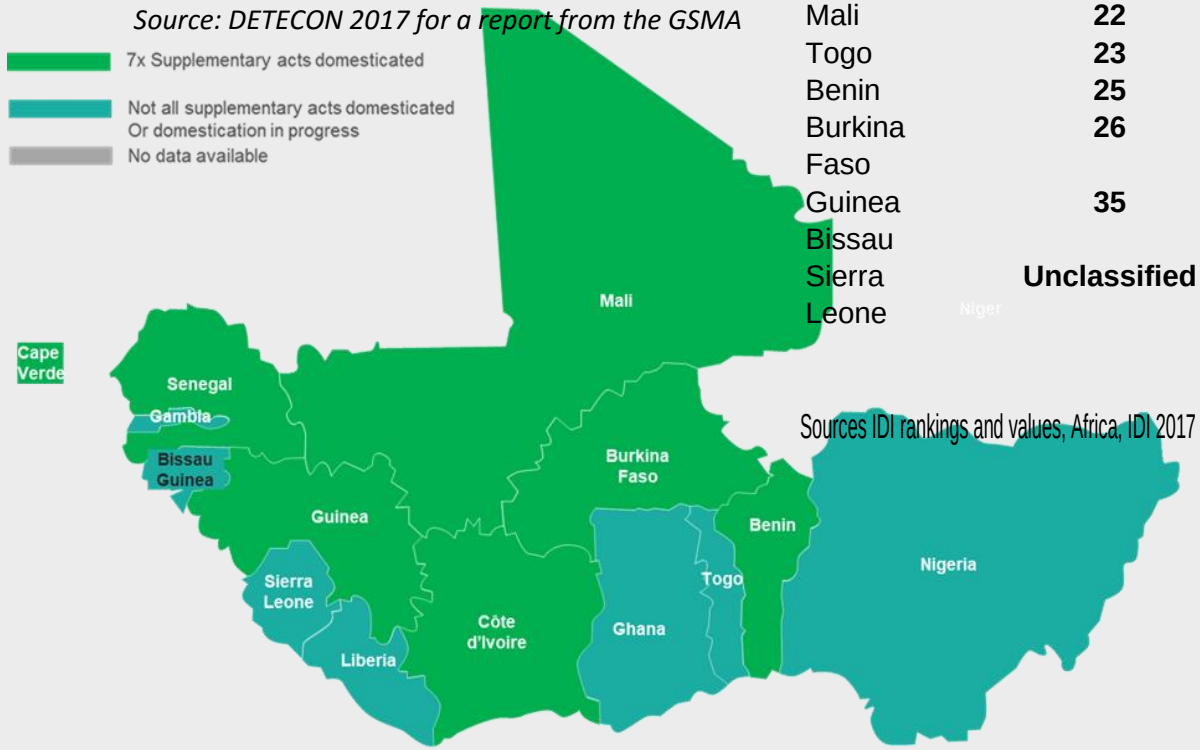
- **No common regional or continental tool for monitoring and evaluating the process of implementing a harmonized regulatory framework in the Member States.**
- There are studies on the subject but by nature circumscribed to a given period of analysis. Nevertheless, some of the findings of the studies carried out over the last ten years remain valid:
  - Lack of financial and / or human resources of the RECs and a need for capacity building to accompany and control the Member States in their transposition,
  - **Difficulties of the Member States belonging to different overlapping RECs, each with their own regional legislation**
  - Difficulties related to the governance and political will of the States concerned whose resolution requires the deepening of the political dialogue to convince the Member States of the interest of the effective integration of policies and regulations in the field of ICTs but also the creation of a common digital agenda to give Africa a chance to resist the challenges of globalization;
  - **The absence of a reliable jurisdictional mechanism, or where such mechanism exists, the reluctance of the actors to resort to it, to sanction the deficiency of the States not transposing or transposing badly the rules of the regional framework** ;

Harmonization impact on the market: inconsistent trend?

Country's formal compliance with its regional regulatory framework and the speed with which it has transposed the regional framework could be not strictly correlated with the country's development maturity in ICTs.
This lack of correlation raises the question of the effectiveness and / or impact of harmonization measures on the development of digital uses and the market

Status of the Transposition of Additional Acts of ECOWAS (2017)

Source: DETECON 2017 for a report from the GSMA



Country	Regional Rank 2017	Global Rank 2017
Cap Vert	**4**	**93**
Ghana	**7**	**116**
Côte d'Ivoire	**9**	**131**
Senegal	**14**	**142**
Nigeria	**15**	**143**
Gambia	**16**	**144**
Mali	**22**	**155**
Togo	**23**	**156**
Benin	**25**	**161**
Burkina Faso	**26**	**162**
Guinea	**35**	**173**
Bissau		
Sierra Leone	**Unclassified**	**Unclassified**

Sources IDI rankings and values, Africa, IDI 2017 and IDI 2016

Ghana and Guinea Bissau, which both partially transposed the ECOWAS additional acts, have a very different ranking in the IDI ranking. Ditto for Burkina Faso and Cape Verde both of which are in perfect conformity with the additional acts of ECOWAS but which have a score very far apart from each other in the IDI ranking.

Preliminary conclusions on RECs

- The REC's continue to progress at a **very different rates**, and
- on the basis of very different method of harmonization depending on the REC's: guidelines / model laws (non-binding) vs Additional Acts, Directive Regulations (binding)
- Beyond the formal transposition of regional rules or guidelines in national, the impact of the harmonization is not measured or even at this stage measurable.

Regional Association of Regulators

Agenda Session 3

List

- Communications Regulators Association of Southern Africa (CRASA, e.g. TRASA) SADC
- Association of West African Telecommunications Regulators (ARTAO): ECOWAS
- Association of Regulators of Information and Communication Services (ARICEA): COMESA
- East African Postal and Telecommunications Regulation Organization (EARPTO): EAC
- Association of Telecommunications Regulators of Central Africa (ARTAC): ECCAS

  + CRTEL (WAEMU)
  + French speaking regulators (FRATEL),
  + Association of Portuguese-speaking regulators (ARCT-CPLP)
  + Group of European regulators of the Mediterranean (EMERG) which brings together 24 regulatory authorities including Morocco, Algeria, Libya and Egypt
  + Conseil Africain des Régulateurs (CAR): Alliance Africa Smart

Situation

- Originally, the African regional associations of regulators contributed positively to the process of harmonization on the continent.
- This contribution has been important in the RECs whose harmonization model is based on regulatory initiatives (see above). RECs have created meeting places which have facilitated exchange of experiences that have been central to the development of guidelines (e.g.: CRASA).
- However, this initial advantage of meeting and exchanging information is gradually losing its importance as there are more and more discussion forums.
- Moreover, the interaction between RARs varies. Thus, some regional associations of regulators develop a model of cooperation while, others prefer to focus solely on their region.
- Similarly, the interaction of regional regulators' associations with RECs also varies. Some RARs have formalized their collaboration with their respective RECs, while others do not. In addition, the priorities of RARs and RECs are not always aligned.
- At the continental level, this collaboration of regulators has another challenge: the difference between continental law and common law (Anglo-Saxon) or language barriers.
- In this context, the future role of RARs in the process of governance and continental harmonization remains to be defined.

The phantasm of a Pan African Regulator

In 2009, one of the flagship recommendations of an HIPSSA study was to create "an *independent pan-African regulatory body with enforceable capacity, as well as a pan-African appeals mechanism*"

Retrospectively , it seems premature for a continental regulator with such skills to emerge :

- the independence of national regulators is far from being achieved in all the countries of the Continent
- the RARs has any enforceable power
- Even the Body of European Regulators of Electronic Communications (BEREC) which is often taken as a model , 10 years after its creation has only limited powers and entangled with those of the NRAs and the EU, (on the basis of a new regulation entered into force in December 2018)
- In addition, the powers of BEREC are exercised in the European context of a highly harmonized and binding regulatory framework in which the European Commission has strong control and sanctions powers which it does not hesitate to invoke. The case of the African continent is radically different (harmonization and weak constraints) which makes the BEREC model non-transposable within the AU

Regional regulators : quick overview

ECTEL (Eastern Caribbean Telecommunications Authority)	ECTEL is, almost the only, if not the only, regional regulatory authority in the world. Its specificity lies in a very important transfer of national regulatory powers at regional level. The ECTEL's original approach is that Member States simultaneously adopt identical laws, negotiated jointly under the auspices of ECTEL, which allowed initial establishment of harmonized national frameworks. This model applies to very small countries that do not have the resources to have an independent regulator(Dominica, Grenada, ST Kitts & Nevis, St Lucia, St Vincent and the Grenadines).
BEREC (Body of European Regulators of Electronic Communications)	BEREC has been assisting the Commission and NRAs in the implementation of EU telecoms rules since its creation It is only the new regulations (2018) that make this institution a full-fledged agency and gives it legally binding powers on limited number of issues (common approaches to meet the interests of end-users, peer-reviewed advice on draft national measures. (For example, radio spectrum assignments) and cross-border disputes).
EMERG (The Group of European regulators of the Mediterranean)	EMERG is on the other side of the path that goes from least to most integration. Its mission is as follows: •- Serve as a forum for regular discussions and exchange of information for its members on issues related to electronic communications; - Promote the approximation of the European regulatory framework and best practices among its members; - Monitor the evolution of electronic communications in the Mediterranean region; - Facilitate cooperation and exchange of ideas and expertise with international organizations, other regulatory networks and industry experts; - Prepare and contribute to the preparation of the pool of documents, reports, benchmarks, presentations, analysis and common positions of a region. EMERG is essentially a forum for discussions, experience sharing and documentary resources for the regulators who are members.

Preliminary conclusions on RARs

- The role of the RARs is less clear than at the beginning of the liberalization
- Over time, the priorities of the REC's and regional associations of regulators tend to diverge
- A new dynamic and more consistency are needed
- If we compare the different models of regional regulators mentioned above, EMERG functioning is probably the only model likely to be suitable at pan-African level in the medium term given the imperfect harmonization of the national texts in force, the absence or the weak means of coercion available to regional and continental institutions and the culture of consensus dear to Africa.

African Union Commission (AUC)

Agenda Session 3

CONTINENTAL LEGISLATION

Malabo Convention

REC COORDINATION IN THE FIELD OF LEGISLATION HARMONIZATION

e.g. HIPSSA

CONTINENTAL POLICIES

Cairo Declaration , CISA, Etc.

A multi-approach …

…resulting in a mixed picture

- In the absence of a comprehensive M&E based on specific and shared indicators, it is difficult to assess the results of the implementation of the AU's framework for the harmonization of policies and legislation in ICT Field
- The intervention of multiple actors for the implementation of the Reference Framework (AUC, AfDB, REC, NEPAD, ITU / EU for the HIPSSA project, etc.), each with their own approach and agenda, makes all the more difficult overall assessment.
- The coordination mechanism sought by the Khartoum Declaration was established and stakeholders met regularly from 2012 to 2017, sometimes in conjunction with other meetings such as the AXIS Steering Committees or ICT meetings organized by donors. These meetings had the positive effect of constituting a platform for exchange of information and common approach on the development of ICTs on the Continent among the main stakeholders of the ICT within the RECs. They have the disadvantage of depending on uncertain external financing which does not allow them to settle down in the long term, to ensure continuity and follow-up of the actions from one meeting to another.
- HIPSSA initiative has contributed significantly to the implementation of the AU Framework for the Harmonization of Telecommunication and ICT policy and legislation in Africa. The program achieved majority of its objectives by giving a pivotal role to the RECs on a list of pre-defined priorities under AU coordination.
- This success can largely be attributed to the following factors: a list of concrete and clearly defined priorities, a participatory and inclusive approach that took into account differences between regions and countries in terms of the maturity of telecom markets and their regulation; and issues of institutional and legal framework..
- However, the success of the HIPSSA project does not guarantee the sustainability of the harmonization process at continental and regional level. At the end, each REC has resumed its freedom to work individually by adopting and modifying its texts with the risk of diversions losing the benefit of harmonization. It is important to emphasize here the importance of implementing a sustainable exit strategy for such a project, independent of project funding.

…notably with regard to Malabo Convention

- African Union Convention on Cybersecurity and Personal Data Protection has not fulfilled all its promises as the first binding and innovative pan-African instrument to create a coherent cyber security momentum across the continent.
- In particular , the number of countries whose ratification is necessary for its entry into force has not been achieved.
- The "Malabo legal instrument" raises a series of questions in terms of substance as well as method:
- On the substance:
  - The Malabo Convention contains provisions that go far beyond the principles but create specific rules leaving little room for application by Member States when these States have different legal frameworks and pre-existing texts on the same subject. However, it is very unusual for the African Union to adopt texts aimed at the total standardization of national rules in a given field.
  - The primary acts of the African Union, including the Malabo Treaties, Protocols and Conventions, establish principles on the basis of which the Member States undertake to base their regional legislation and regulations, either when they establish specific obligations, then these relate primarily to cooperation mechanisms between States; the movement of people and goods; and the relations of the Continent with the outside world.
  - While it made sense to create an African cybercrime cooperation tool modeled on the Budapest Convention, such an approach is less relevant for electronic transactions or data protection. In these areas, adoption of model laws on the UNCITRAL model might have been more appropriate.
- On the method:
  - According to some stakeholders, support and advocacy actions by Member States to ratify the Convention would have been insufficient;
  - Although not publicly expressed, the proposed adoption of the Malabo Continental Convention may have competed with regional initiatives in the same areas, debated at the same time as the Continental Legislative Project.

ICT Harmonization assessment: synthesis

Agenda Session 3

REC'S Trends

	Findings	Diagnosis		Conclusions
		Opportunities	Obstacles	
REC's	The REC's continue to progress at **very different** rates	Build on the dynamic of the HIPSSA project based on coordination of the RECs as mainstays for advancing continental harmonization of telecommunications / ICT legislations	In North Africa, the REC was not part of the HIPSSA dynamic and does not play its role of regional harmonization	**It would be helpful to put into place sustainable and effective co-operation mechanisms between the REC's and AUC to promote greater coherence and integration at the Continental level.**
	The method of harmonization is very different depending on the REC's: guidelines / model laws (non-binding) v Additional Acts, Directive Regulations (binding)		REC's have limited human and financial resources. Often inconsistent with the wish to cover a large amount of content	
	Beyond the selected legal strategy, the commitment and political is important for effective harmonization		Cumbersome procedures for recruiting outside experts	
	The formal compliance of a country with the regional legislative framework and the speed with which it is transposed is not strictly correlated to the maturity of said country in terms of ICT development		There is a lack of political will amongst certain Member States	**It would also be useful to implement mechanisms that are lacking for monitoring and evaluating (M&E) the implementation and impact of harmonization in member countries**
			No regional mechanism for Monitoring and Evaluation of the impact of harmonization on national/regional markets **No effective mechanism /process for coordinating national, regional and continental aims**	

RAR's Trends

	FINDINGS	DIAGNOSIS		CONCLUSIONS
		OPPORTUNITIES	OBSTACLES	
Regulatory Associations	The regional associations of regulators have made a positive contribution to the harmonization process in their region and less at the continental level Their role is currently not so clear	Construct a new continental approach in the PRIDA framework for regional regulator's associations to better co-ordinate their priorities amongst themselves and with those of the REC's	No regional, nor *a fortiori* continental mechanism for Monitoring and Evaluation of the impact of harmonization on national markets Limited human and financial resources. Often inconsistent with the wish to cover a large amount of content; Existence of other discussion platforms between regulators at the pan-African or peripheral level (i.e. CRA , FRATEL, EMERG …)	Creation of a pan-African super-regulator to oversee the regional associations of regulators and NRA's makes no sense in the African context: • very imperfect harmonization of the national texts in force, • In some cases the independence of the NRA's is disputable • Lack of enforcement and sanction mechanism amongst regional and continental institutions. Setting up working groups to consider a list of common priorities is a more flexible and realistic model

AU's Trends

	Findings	Diagnosis		Conclusions
		Opportunities	Obstacles	
AU	The AUC has put into place various approaches to harmonization of telecommunications and ICT policies and legislative frameworks in Africa: • Co-ordination of REC legislative initiatives • Adoption of a uniform pan-African legislative framework (Malabo Convention) • transversal policy (CISA), …)	The turning point of the "digital economy" is a unique opportunity for Africa to position itself collectively on the international stage.	**No effective mechanism for coordinating regional and continental players**	Coherence and pace of implementation of harmonization by the Rec's and the Member States are inadequate The main pitfalls to be overcome in order to make progress are at the least: • Definition at the continental level of concrete and measurable regulatory priorities • Implementation at the continental level of a mechanism for Monitoring and Evaluation of implementation of said priorities by the REC's and Member States.
	Currently, none of these initiatives has delivered all the expected benefits	Entry into force of the AfCFTA strengthens the requirement for the Continent to harmonize its policies, legislation and regulation practices with regard to digital matters	**Lack of Monitoring and Evaluation at the regional and continental levels** Lack of means and resources to effectively support and oversee continental harmonization	

Methodology

Agenda Session 4 & 5

Lessons learned

Agenda Session 4

Key point of the previous assessment

Retrospectively, as regards harmonization methods and the experience accumulated since the mid-2000's by the associations of regulators, the REC's and the AUC, the broad lines which emerge tend towards results falling short of expectations,

- Specific difficulties to harmonization on three levels (pan-African, regional and national) ; these difficulties being further exacerbated by the intricate nature of the jurisdictions and geographical perimeters involved.
- Due to this complexity and other institutional obstacles, the period of time required for harmonization and implementation of the reforms is far slower than the pace of market transformation;
- **Low cohesion, cooperation, coordination and harmonization among regional ad continental actors**
- In addition, there is no common mechanism for measuring the quality of implementation and the coherence of national frameworks with regional and/or continental frameworks (Monitoring and Evaluation).
- **Generally speaking, whether at the continental or regional, political or legislative level, Monitoring and Evaluation tools based on shared indicators are sadly lacking**;
- Attention has been focused on the telecommunications sector but there is not yet a broader vision reflecting the galloping digitalization of our societies with progressive integration of technologies and digital services in all sectors of the economy and of society.

Lessons for the future

- The African Continent is too vast and too diverse; it is not yet ready to envisage and to implement in the short or the mid-term global and uniform harmonization of Telecommunications/ICT legislation despite the integration and unity it aspires to;
- However pragmatic solutions need to be found to strengthen this harmonization, which will enable Africa to stake its independence and take its place in the global digital economy, as well as to progressively develop a single African digital market;
- The diversity of harmonization, achieved at different speeds at REC level is not sufficient for this aim to be achieved;
- Implementation of a mechanism at the continental level for Monitoring and Evaluation (M&E) of implementation of ICT legislation in Member States would certainly be a way of creating more harmonization, subject to an extremely pragmatic and realistic approach being developed, to take into account the limited means and resources available on the Continent. This would avoid measures which are destined to fail given their complexity or their cost

Monitoring & Evaluation

Why is it important?
What is it?
How does it work?

M&E is a world in itself.

We are not so presumptuous as to think that we are able here to describe in depth what is a M&E system either to compare all the existing methods even in the more limited field of Regulatory Impact Assessment (RIA) or provide detailed guidance on conducting evaluations

Our goal is to emphasis the role that can play **M&E in the creation of more coordination and cooperation between AU, RECs , RAR and all the stakeholders to ICT policy , legislation and regulation harmonization in Africa** and to identify the challenges attached to the implementation of such M&E mechanism

Why is M&E important?

- **Support project/program implementation** with accurate, evidence-based reporting that informs management and decision-making to guide and improve project/program performance.
- **Contribute to organizational learning and knowledge sharing** by reflecting upon and sharing experiences and lessons so that we can gain the full benefit from what we do and how we do it.
- **Uphold accountability and compliance** by demonstrating whether or not our work has been carried out as agreed and in compliance with established standards
- **Provide opportunities for stakeholder feedback**, especially beneficiaries, to provide input into and perceptions of our work, modelling openness to criticism, and willingness to learn from experiences and to adapt to changing needs.
- **Promote and celebrate our work** by highlighting our accomplishments and achievements, building morale and contributing to resource mobilization.

What is Monitoring ?

- Monitoring is the routine collection and analysis of information to track progress against set plans and check compliance **to established standards**. It helps identify trends and patterns, adapt strategies and inform decisions for project/program management
- There are different types of monitoring commonly found in a project/program monitoring system.
- These monitoring types often occur simultaneously as part of an overall monitoring system.

Results monitoring tracks effects and impacts

Process (activity) monitoring tracks the use of inputs and resources, the progress of activities and the d
outputs.

Compliance monitoring ensures compliance with donor regulations and expected results, grant and cor
requirements, local governmental regulations and laws, and ethical standards.

Context (situation) monitoring tracks the setting in which the project/programme operates. It includes
well as the larger political, institutional, funding, and policy context that affect the project/programme

Beneficiary monitoring tracks beneficiary perceptions of a project/programme: satisfaction or complain
participation, treatment, access to resources and their overall experience of change.

Financial monitoring accounts for costs by input and activity within
categories of expenditu

Organizational monitoring tracks the sustainability,
ing in t
project/programme and with its partners.

What is Evaluation ?

- The OECD/DAC (1) definition of evaluation is an assessment, as systematic and objective as possible, of an ongoing or completed project, program or policy, its design, implementation and results.
- The aim is to determine the relevance and fulfilment of objectives, developmental efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and, the case may be the donors
- There also different type of evaluation, e.g.: Midterm or summative evaluation , internal or external/independent…

(1) : Development Assistance Committee of the Economic Cooperation and Development (OECD/DAC)

Key steps for M&E implementation

1.1. Definition of the purpose and scope of the M & E system: Why do we need an M & E system and what areas should we cover?

1.2. Identification of performance issues, information needs and indicators: what do we need to know to monitor and evaluate the project in order to manage it well?

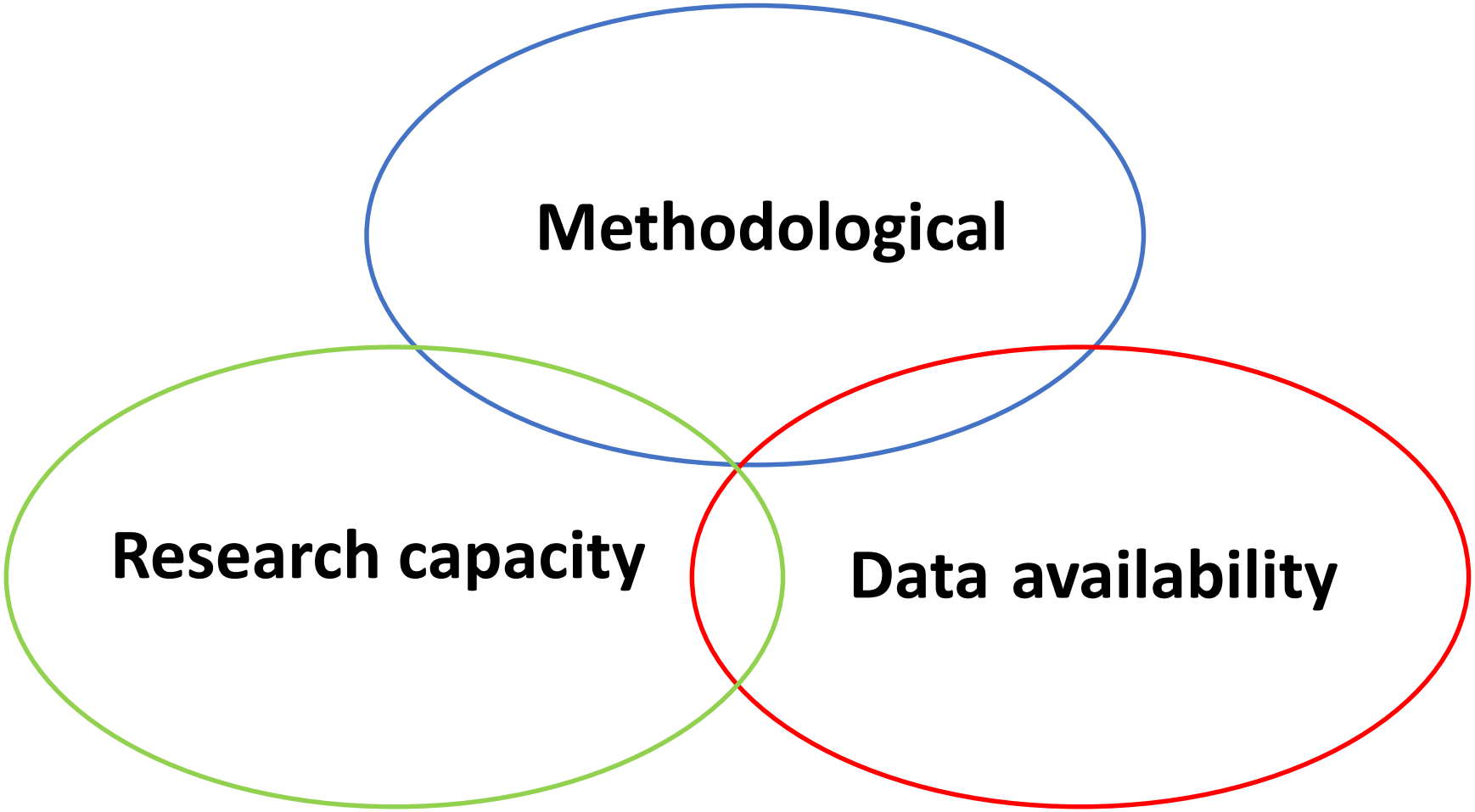
1.3. Planning the collection and the organization of information: how will the necessary information be collected and organized?

4. Planning the mechanisms and activities needed to implement the critical reflection: how will we draw the information from the collected information and use it to improve the management of the project?

5. Planning for communication and quality (evaluation) reports?

6. Planning the necessary means and skills: what do we need to make the M & E system work?

The challenge of evaluation of harmonization of ICT policies, legislations and regulation in Africa



Source: Research ICT Africa (RIA)

Continental and Regional levels

- At the regional level, we are not aware of any operational, systematic, mechanism for evaluation of **the impact of legislation or regulation** on the telecommunications/ICT market either on the supply or demand side.
- **Supply-side indicators/indices such as the IDI, NRI and MCI which base on supply side measurement are more likely to be misleading and demand-side indicators are missing**
- The launch, with the support of the World Bank, of the initiative known as "***ICT Regulatory Watch Initiative***" is one of the first attempts to address this issue.
- The initiative is in testing phase, with phase 1 concerning solely:
  - a limited number of questions, concerning the 3 following domains: i) rules concerning licensing regime (i.e. conditions for market entry), ii) access to international gateways and iii) OTT
  - the Member States of ECOWAS.
- At the continental level the Monitoring and Evaluation (**M&E**) process is all the more embryonic in that the UA does not yet have a policy or framework sufficiently defining specific aims as to what should be harmonized and when.
- Failing definition of these aims, they cannot be monitored or evaluated.
- Once such aims are fixed, then an M&E method still has to be chosen.

Member State Level

Usual indicators and associated objectives

ANALYSIS OF THE NATIONAL MARKET	OBJECTIVES
1 Infrastructures (networks & technologies) 2 The available offers and their competitive nature 3 the quality of services 4 the price level	Accessibility Plurality of the offer QoS affordability (Offer)
5 penetration rate 6 If possible a measurement of utilization (frequency, volume of data etc.) 7 (...)	Development of uses (Demand)
ANALYSIS OF THE ENABLING LEGISLATION/REGULATION	**OBJECTIVES**
8 Independence activity of the regulator	Effectiveness of regulation
9 Regime of telecommunications activities	Removal of barriers to entry Development of competition
10 Access / interconnection	Competition
11 Universal access / service	Accessibility
12 Spectrum management	Competition / spectral efficiency / optimization of scarce resources
13 Regulation of the quality of service	QoS

- Evaluation of **the impact of legislation or regulation** on the telecommunications/ICT market is carried Member States in the simple form of a sectoral diagnosis, generally when a reform is envisaged.
- The consultants who carry out these diagnoses use the same indicators (most of the time) that have the merit of being known and shared

International ICT policy /regulation evaluation

- At international level, impact evaluation methods - either prior or *a posteriori* - of public policies and legislation are numerous. They are, moreover, often complex and costly to implement.
- Policy aspects can be assessed using UNCTAD's ICT Policy Evaluation Framework, and evolution of the digital economy by using the World Bank's “Digital Economy Country Assessment (DECA)” assessment framework.
- Regulatory practice can be assessed using the OECD's Regulatory Impact Analysis (RIA) method or the eLearn Asia / RIA Telecommunications Regulatory Environment (TRE) Assessment Method.
- There are also studies carried out in the private sector which attempt to link the legislative framework of a country to the advisability of investing in a specific market. For example, the recent Mobile Money Regulatory Index established and published by GSMA determines to what extent the legislative framework of a country makes generalized adoption of mobile money possible (entry index).
- It should be noted here that the MMRI analyzes six broad regulatory dimensions considered as enabling (“regulatory enabler”) for the adoption of mobile money services, by aggregating several indicators for each regulatory enabler. i.e. in total 27 indicators, associated with different types of measurements!

MMRI Example

The 27 indicators are associated with measurement which can be of three different types:

1. Continuous. A numeric value that is not limited to particular values (for example, transaction values or maximum account balances allowed).

2. Binary. A value that can only take two answers, usually "Yes" or "No" that gives scores of 1 or 0 respectively (for example, does the regulation impose a geographical restriction on mobile money service distributors? Yes? No?). Some indicators can be constructed using several binary indicators (for example, 5 binary indicators could be combined so that one country receives a score of 5).

3. Ordinal. A ranking based on a predefined scale. The higher score being associated with "better" performance or more enabling regulation.

As an example, on one of the 6 regulatory dimensions, the dimension t "authorization", the MMRI index uses the following indicators and ranking method:

Dimension	Indicator	Scoring	
Authorization	Eligibility	**0**	Non-banks including MNOs are not eligible to issue e.money/offer mobile money services at all
		1	Non-banks are eligible to issue e-money/offer mobile money services, but MNOs are prohibited from doing so. Alternatively, MNOs are eligible to provide mobile money services, but no other non-bank is.
		2	Non-banks (including MNOs) are not eligible to issue e.money/offer mobile money services except by acquiring or establishing a lower-tiered prudentially regulated institution that is authorized to issue e-money/offer mobile money/branchless banking directly. The test here is whether the non-bank owns the customer relationship with the mobile money account holders. If not, then this indicator applies
		3	Non-banks (including MNOs) are not eligible to issue e.money directly or obtain regulatory authorization to offer mobile money services except in partnership/in conjunction with a prudentially regulated institution whose role extends beyond providing funds custodial services (e.g. regulatory authorization, regulatory engagement, etc.) but does not have a customer relationship with mobile money account holders. The test here is whether the non-bank owns the customer relationship with the mobile money account holders. If it does, then this indicator applies
		4	Non-banks (including MNOs) are eligible to issue e.money/offer mobile money services directly or through a subsidiary (which is not prudentially regulated) with the involvement of a prudentially regulated institution as custodian of customer funds
	Authorization Instruments	0	There exists no regulatory framework to provide authorization for the provision of mobile money services
		1	There exists no regulatory framework to provide authorization for the provision of mobile money services, but letters of no objection are released.
		2	There exists a formal authorization to provide mobile money services, which is based on a regulatory framework. However, no licenses have yet been issued
		3	Here exists a formal authorization to provide mobile money services, which is based on a regulatory framework, and licenses have been issued.
	Initial capital requirements	Continuous	Ratio of the initial capital requirements for mobile money providers to the initial capital required to become a bank in that country.
	International remittances	1 pt if	Regulation allows mobile money providers to send international money transfers
		1 pt if	Regulation allows mobile money providers to receive international money transfers
		1 pt if	There is no separate licensing regime for international remittance services.

Toolkit for Measuring Digital Economy

G 20 - November 2018

The G20 Toolkit for Measuring the Digital Economy brings together different methodological approaches and indicators that may be used to monitor the digital transformation and highlights critical gaps and challenges involved in digitalization measurement

It provides more than 30 key existing indicators and methodologies to monitor and assess the size and penetration of the digital economy are organized in four themes according to their main purpose of measurement:

Infrastructure: Indicators of the development of physical, service and security infrastructures underlying the digital economy: • access to mobile and fixed networks, • the development NGA networks, • dynamics of household and business uptake, • secure servers infrastructure, and infrastructure	**Empowering society: I**ndicators that portray the evolving role of the digital economy in people's life, how they access and use digital technologies, and their abilities to fully exploit their potential. It includes indicators on people's use of the internet, education, financial inclusion and interaction with government, among others.
Innovation and technology adoption: Indicators that address innovation in digital technologies, new digitally-enabled business models, the role of ICTs as an engine for innovation, and adoption of ICTs and other emerging technologies by businesses.	**Jobs and Growth**. The metrics collected within this section explore the different ways in which digital technologies contribute to economic growth and employment creation. It includes indicators related to the labour market, employment creation, investment in ICTs, value added, international trade, e-commerce, and productivity growth.

G20 note : Existing top down indicators are limited in their ability to capture the complexities of the digital economy. G20 members may wish to explore ways to better utilize existing usable data sets and use complementary bottom up measurement methodologies whenever possible

- In summary, there is no universal method of M&E which is a perfect fit and, a fortiori, simple.
- In Africa and per our specific issue (harmonization of ICT policies, legislations and regulation), the challenge for implementing such M&E is bigger due to weak data availability and lack of resources
- Therefore our goal is to find an inventive, pragmatic and progressive way for measuring progress in harmonization as a tool for generating more cohesion and coordination and in order to avoid measures which are destined to fail given their complexity or their cost

So what can we do?

Clearly define the distribution of tasks and the role of each of the principal players, parties to the harmonization process

- **AU**: the AU could continue with its contribution to harmonization by adopting continental policies. In addition, it **could have a pivotal role in implementing a continental methodology for measuring implementation, and if possible, the impact (Monitoring and Evaluation) of policies, legislation and regulatory practices of telecommunications/ ICT in Africa;**
- **REC - AUC** The REC's could retain their leading role in the preparation and adoption of regional legislations/guidelines and in supporting Member States in the implementation of the regional framework in national laws. The REC's and AUC could decide on more effective co-operation mechanisms to promote greater coherence and integration at the Continental level through the M&E mechanism
- **Regional associations of regulators** : New co-operation mechanisms between NRA's could be put into place in order to improve continental harmonization of regulatory practices and coherence of actions between regional associations of regulators and REC.

  On the basis of previous experience both in Africa and internationally, it is suggested to constitute working groups between NRA's composed of experts for each regulatory question / issue identified in a list of priorities such as defined below

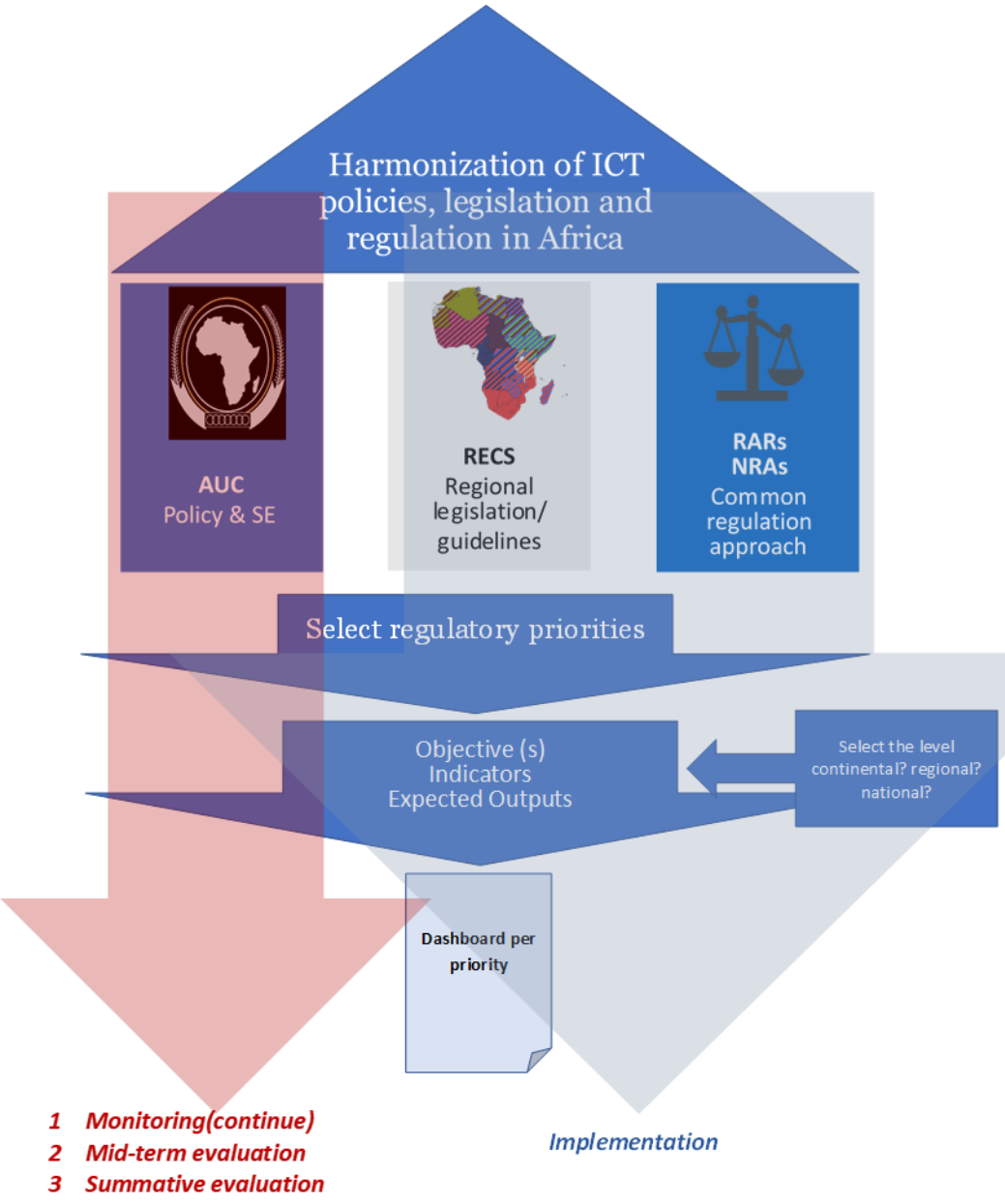
  In the selected list of priorities, the most technical priorities shall be considered solely at NRA level. For those priorities considered at REC level, it would be useful to check the need for co-ordination with the NRA's.

  Inter-NRA working groups could be constituted:

  - on a continental basis by the existing regional associations of regulators
  - on a more limited scale between certain regional associations. This would not be co-operation on a truly continental scale, but is a realistic scenario similar to the initiative by the African Council of Regulators (ACR) of the Smart Africa Alliance
  - on the basis of a group of individual regulators spread across the Continent, not necessarily being from the same region, and encountering the same problems

Define a tailored continental M&E method for harmonization of policy, legislative frameworks and regulatory practices

- Insofar as a there is no perfect M&E model available and to avoid the pitfall of impracticality, M&E of harmonization of policy, legislative frameworks and regulatory practices should be restricted to a **limited number of regulatory priorities** selected by the stakeholders during the workshop.
- Each of these priorities should be **specifically** associated with (i) aims, (ii) measurement indicators (iii) and the results expected on the basis of said indicators. These shall be defined for each case. In addition, the selected indicators shall take into account their availability and the capacity of stakeholders to collect and process the required data.
- In the list of priorities to be discussed during the workshop, it is proposed to select **2 up to 3 legislative definitive topics for RECs and the same number of regulatory issues for RARs.**



A limited number of priorities
+ Common objectives per priority
+ Strict M&E of their implementation
+ Based on pre agreed indicators by priority at a continental level
= more harmonization & cooperation

PRIDA

To be reproduced and continued ….

Intermediary agreement proposed

Key steps for M&E implementation	Should be done during the workshop	Should be done after the workshop
Definition of the purpose and scope of the M & E system	YES 1 Agreement on the key elements of the methodology 2 Selection of the priorities to be covered 3 Matrix for definition of objective/indicators and and expected outcomes	NO
Identification of performance issues, information needs and indicators:	Partially (1)	Partially (1)
Planning the collection and the organization of data	NO	YES
Planning the mechanisms and activities needed to analyse the data	NO	YES
Planning for communication and quality (evaluation) reports	NO	YES
Planning the necessary means and skills	NO	YES

(1) Depending on the regulatory priorities selected, there may be more or less difficulty in defining the right indicators and the indicators may be of very different types.

A well-known issue benefiting from a mature legislative framework the implementation of which can be evaluated or has already been evaluated with sufficient hindsight (e.g. the regime for operator licenses since liberalization of the market in Africa), definition of the indicators is certainly less complex than for prospective issues such as digital tax issues or the Internet of Things for which no measurable regulatory framework has yet been developed over time

Options for Discussion

Methodology - Policy Legislation

Agenda Session 5

AU pivotal role in implementing a continental methodology for measuring implementation & impact of policies, legislation and regulatory practices of telecommunications/ ICT in Africa

The AU already concentrates it action on :

- The adoption of policies to i) promote and support the cross-cutting use of ICTs to transform African societies and economies to ii) create an African digital single market that would be just as logical as necessary for the ***AfCFTA*** which has just come into force.
- These policies could identify a number of areas where RECs and Member States will have to adopt new rules or modernize existing rules, based on principles and expected results discussed and approved at the continental level.
- However low cohesion, cooperation , coordination and harmonization among regional and continental actors is noted

To reinforce coordination and cooperation between RECs RARs and UA, the CUA could take the lead on the development, support and monitoring of the implementation of a common methodology for Monitoring & Evaluation of harmonization initiatives at continental level

To fit the goal of improved harmonization option 1 could be privileged

Actions	Options	AUC role	REC role	Role of Member States
Definition of a general methodology for M&E	**Option 1:** Continental Guidelines	- AUC to propose principles of continental methodology after collecting inputs from RECs - Adoption by the AU	- Inputs - Implementation	- Initial inputs to determine the methodological principles - Providing the data needed for implementation
	Option 2: Regional guidelines	- AUC coordinates and supports the adoption of a specific methodology by REC	- Each REC proposes the principles of a regional methodology after collecting inputs from Member States - Adoption - Implementation	- Initial inputs to determine the methodological principles - Providing the data needed for implementation

RECs-AUC cooperation

- While it seems logical for the RECs to play a pre-eminent role i) in the preparation and adoption of legislations / guidelines at regional level and ii) in supporting Member States in the implementation of the framework in national law, more effective co-operation mechanisms should be established to promote greater coherence and continental integration:
  - **The collective establishment of a continental-wide list of regulatory priorities for the adoption of future harmonized regulations is one of such mechanism, and,**
  - **the identification - at the continental or regional level of objectives , indicators, and expected results for each of the initiatives on the list of regulatory priorities**
- **would be one more step in the implementation of a harmonized continental regulation**.
- This implementation remains at the level of the RECs
- It could be also useful to designate a regional or national champion responsible for coordinating the initiative at the continental level for each regulatory priority chosen.

Regardless the priorities selected, objectives, indicators and expected outputs could for each of them be defined at different levels : continental, regional or national

- It is the reason why the following tables are multiple entries
- For example, we can imagine that stakeholders agree on a scenario where
  - the objectives are continental
  - regional measurement indicators
  - National expected results
- Or
  - the objectives are continental
  - continental measurement indicators
  - Regional expected results
- Etc.
- **Additionally, for each regulatory priority selected, the above “mix” may be different.**

RECs-AUC cooperation (cont.)

Actions	Continental harmonization	Options	AUC role	REC role	Role of Member States
Designation of a regional or national champion for each regulatory priority	+	-	-	- Designation	- Designation
Definition of the objectives pursued for each regulatory priority	+	**Option 1:** Definition of continental objectives	- The AUC must coordinate the RECs to agree at the continental level on high-level and specific objectives for each priority, eg. * High Level Objective: to lower barriers to entry into the telecom market; *Specific objectives: - Development of Competition: - Geographical and tariff accessibility - Quality of services in particular in terms of available throughput Development of uses (penetration rate)	inputs Country support for implementation	inputs Implementation
	–	**Option 2** Definition of regional objectives	AUC coordinates and supports the adoption of regional goals	Each REC must coordinate the countries in order to agree at the regional level on high level and specific objectives for each priority chosen. cf. examples above	inputs Implementation

RECs-AUC cooperation (cont.)

Actions	Continental harmonization	Options	AUC role	REC role	Role of Member States
Definition of indicators for each regulatory priority	+	Option 1 Adopt unified continental indicators	AUC to coordinate RECs to agree on continental indicators for each regulatory priority	inputs Country support for implementation	inputs Implementation
	–	Option 2 Adopt regional indicators that may differ from one REC to another	AUC coordinates and supports the adoption of regional measurement indicators for each regulatory priority	The RECs propose and adopt, on the basis of Member States' inputs, the regional measurement indicators for each regulatory priority	initial inputs to identify relevant indicators Implementation
Definition of expected results on the basis of the predefined indicators and by regulatory priority	+	Option 1 Anticipate different regional results from one REC to another	The AUC coordinates and supports the adoption of expected regional or national outcomes for each regulatory priority	The REC proposes and adopts on the basis of Member State inputs the expected regional results for each regulatory priority	initial inputs to identify regional expected results for each regulatory priority
	–	Option 2 Anticipate national results from one state / member to another	The AUC coordinates and supports the adoption of expected regional or national outcomes for each regulatory priority	RECs coordinate and support the adoption of national expected results for each regulatory priority	Definition of national results for each regulatory priority

Methodology - Regulation

Agenda Session 5

RARs NRAs Cooperation

Step 1 - Identification of a list of concrete questions regarding the implementation of existing or future regulations

- Identify and propose a series of concrete and priority issues of implementation in relation to:
  - Legislation in force
  - Legislation that could be considered in the context of the regulatory priorities defined at the beginning of the project (see § 4.2.2. below);
  - Cross-cutting issues that are not directly related to legislation in force or that can be anticipated
- For example, the issue of "data regulation" could prove to be a very successful theme for national regulators
- Another subject of interest in terms of regulation, is the implementation of a cross-border settlement mechanism based on the mechanism provided for in Article 9 of Regulation C / REG 19/12/16 to extend it to other topics that bandwidth access
- Priority Regulatory Questions (“PRQs") may be selected from the list of proposals in the working paper or any other relevant topic proposed before or during the workshop

RARs NRAs Cooperation

Step 2 - Set up a working group made up of experts for each PRQ

- Following the validation of the PRQ list a working group made up of experts is identified to develop
  - common approaches / positions, guidelines or methodologies on a PRQ
  - work programs on specific a PRQ
- Each working groups may consist of:
  - On a continental basis by the regional associations of existing regulators;
  - On a smaller basis between certain associations. This would not be true continental cooperation, but it is a realistic scenario a bit like the initiative of the Council of African Regulators (CAR) of the Smart Africa Alliance ;
  - On the basis of a group of regulators not necessarily belonging to the same African region who face the same problems.
- A responsible NRA should also be designated for each issue and associated working group. The latter could be in charge of:
  - convocations
  - hosting experts on its premises or organizing video conferences
  - preparation of working documents / reports
  - propose an association with international experts or twinning with leading foreign NRAs on the subject concerned

RARs
NRAs
Cooperation

Step 3 - Monitoring & Evaluation

- Same M&E methodology as proposed for legislative priorities at REC level

Priority Areas

Agenda Session 6

Rationale

- AUC & RECs have limited resources
- PRIDA has a limited duration (2 years)
- the Continental methodology for regulatory harmonization needs to tested
- It would be unrealistic to apply the methodology to the comprehensive scope of all the ICT legislation & regulation issues

Implementation methodology for regulatory harmonization should first be applied to a limited number of key priorities reflecting the Continental policy agenda

Regulatory priorities proposed for discussion

1. *Conditions of entry into the market (authorization / licensing regime)*
2. *Measures to reduce the cost of deploying broadband networks*
3. *Quality of service and consumer satisfaction:*
4. *International Roaming*
5. *Implementation of a cross-border dispute settlement mechanism*
6. *Affordability / accessibility of services due to lack of competition*
7. *Regulation by data*
8. *Digital taxation*
9. *Mobile Money*
10. *Net Neutrality*
11. *Protection of personal data and location of data*
12. *Over The Top Services (OTTs)*
13. *Electronic waste*
14. *Internet of Things (IoT)*
15. *Smart Cities*

Others?

1. Conditions of entry into the market

Context

- A priori, no continental initiative on this issue at a pan African level .
- However it is pretty clear that there are heterogeneous and most of the time restrictive market access regimes (licensing regime), despite the prohibition of exclusive rights and , in some extent, the non-limitation of the number of licenses
- The need for individual licenses for all types of networks open to the public, irrespective of the use or otherwise of scarce resources, and for the provision of the "public voice service", remain the norm while sectoral developments justify the shift to a unified authorization regime, or even a simple declaration, for all electronic communications, except those requiring the use of reserved radio resources
- Next-generation telecommunication/ICT regimes. are needed to lower barriers to entry, open markets, promote competition and agile forms of investment that address new business models and capital market constraints

Conditions of entry into the market

authorization / licensing regime

Why?

Findings
• Extensive perimeter for individual licenses for all types of networks regardless of the use of scarce resources
• Spectrum licenses are not systematically technology neutral to promote efficiency
• No regulatory & operational mechanism whereby an operator on the market of a State may be authorized to provide services in all Member States of the same regional economic community

Outputs	
COMPETITION	
AVAILABILITY (services)	
AFFORDABILITY (services)	
INTEGRATION (Networks and services at regional Level)	

Conditions of entry into the market

authorization / licensing regime

Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**PARTIAL**	One of the topics of the ICT Regulatory Watch Initiative (RWI) however limited to ECOWAS countries
Opportunity to set specific and harmonized enabling legislation/regulation	**YES**	Revision of legislation both at regional ad national levels: i) authorization / licensing regime, ii) spectrum awarding and iii) if the case may be, regional authorisations
Concrete results are expected and can be measured easily	**YES**	New legislation adopted ; Competition: Number of operators Availability &affordability: infra coverage; tariffs, etc.
Relevant to the goal of creating a single African digital market	**YES**	Harmonized, lighter and transparent national regimes are one of the ways to allow the development of integrated network and service at regional level
Consistent with the policies or strategies developed by AU in this area.	**YES**	Create an enabling environment that attracts investment and promotes sustainable competition in Telecom / ICT regional markets, infrastructure, and increasing access
Enough Members States are interested (>15)		

2. Reducing the cost of deploying broadband networks Context

- There is still a significant deficit in broadband infrastructures and services in Africa , absolutely needed to provide the foundation for the digital transformation of the African economy and society.
- To prevent broadband Internet from being restricted to major urban areas, while limiting the use of public funds to expand their geographic coverage, developing countries need to develop policies and procedures that will reduce the cost of deploying fiber optic networks.
- To address these issues, it's becoming clearer that ICT players will have to come together more to share their network infrastructure and services.
- Beyond Telecommunication infrastructure sharing other interesting solutions maybe considered :
    - access to excess capacity on existing fiber optic networks along energy or transportation infrastructure
    - to promote the coordination of civil works in new infrastructure construction projects between the so-called public service network sectors (transport, water, energy) and telecommunications
- Coordination of civil works between infrastructure projects can indeed generate significant financial savings because the construction of infrastructure (railway projects, roads, terrestrial fiber optics, etc.) involves a lot of civil works (digging trenches, etc.) which constitute the major part (70-90%) of the cost of deploying optical fiber networks.

Reducing the cost of deploying broadband network

Why?

Findings
• Significant deficit in broadband infrastructures and services in Africa
• Ineffectiveness of infrastructure sharing frameworks
• Intersectoral co-ordination initiatives for civil works are rare, especially in the absence of a legal and regulatory framework to facilitate (through incentives or obligations) synergies between public service network projects (transport, water , energy) and broadband network projects

Outputs	
COMPETITION	**NEUTRAL**
AVAILABILITY (services)	
AFFORDABILITY (services)	
INTEGRATION (Networks and services at regional Level)	

Reducing the cost of deploying broadband network

Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**PARTIAL**	PIDA promotes a Multisectoral Infrastructure Corridor Approach which in theory should avoid duplication in future cross-border infrastructure planning connects the sectors of transport, energy, water and ICT
Opportunity to set specific and harmonized enabling legislation/regulation	**NO**	If a set of common practices could be considered in telecom infrastructure sharing , it seems difficult to harmonize norms and process relating to civil work coordination
Concrete results are expected and can be measured easily	**YES**	New legislation mandating infrastructure sharing and/or civil work coordination are adopted The number of networks rolled out in coordination with other networks has increased Cost savings
Relevant to the goal of creating a single African digital market	**YES**	Promote regional integrated Network (cf. PIDA)
Consistent with the policies or strategies developed by AU in this area.	**YES**	Idem supra Foster Broadband network deployment
Enough Members States are interested (>15)		

3. Quality of service and consumer satisfaction

Context

- QoS of Telecommunication services is still a challenge in Africa with telcos and ISPs struggling to offer seamless connectivity of voice and data services
- Despite significant improvement, bandwidth availability and related investment are in some countries insufficient to ensure basic QoS
- In particular, QoS remains a critical issue for business development
- Regulators face multiple challenges such as for example:
  - Shift from QoS to QoE;
  - Rise of new broadband services and technologies while the QoS indicators were originally built for voice services ;
  - Increase and multiplication of of customer expectations

Quality of service and consumer satisfaction

Why?

Findings
• More the concurrence is weak, less operators have incentive to improve QoS
• Most African Countries have adopted the enforcement approach with very limited aspects of the encouragement approach while fines have not the expected deterrent effect or quality improvement. • This could be due to largely un - empowered customer bases
• Depending the Member State , NRA readiness to face the new QoS/QoE challenges is very different

Outputs	
COMPETITION	
AVAILABILITY (services)	
AFFORDABILITY (services)	_
INTEGRATION (Networks and services at regional Level)	

Quality of service and consumer satisfaction

Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**PARTIAL**	Regional initiatives supported by ITU: • WATRA Guidelines on Quality of Service (QoS) and QoE (Quality of Experience) Management ; • CRASA QoS/ QoE Guidelines
Opportunity to set specific and harmonized enabling legislation/regulation	**YES**	Opportunity to set continental QoS/ QoE Guidelines which provides a reference for Members States as a guiding tool for the national regulatory agencies (NRAs) HOWEVER, there is already a lot of ITU initiatives and publications in this field
Concrete results are expected and can be measured easily	**NO**	Compatible technical output likely difficult to gather Complaints statistics not available or likely to be misleading
Relevant to the goal of creating a single African digital market	**YES**	*Telecommunication networks are interconnected on a national, regional, and global basis, and the QoS applied in one network or one country influences the end-to-end quality of that service, so the quality cannot be considered only at national or regional level, but also needs to be considered global. A harmonized and common approach to regulating QoS would enable greater quality prospects irrespective of the locations of the consumer and service provider* (**ITU**)
Consistent with the policies or strategies developed by AU in this area.	**YES**	Cf. General objective of promoting digital usages
Enough Members States are interested (>15)		

4. International roaming
Context

(1) Northern Corridor, West Africa Region

- The AU developed a set of IMR Guidelines for Regulators discussed and presented in September 2013

- Smart Africa Free Roaming Initiative is currently at an implementation stage on the basis of the following common framework
  - The traffic is exempted from surcharges on International traffic.
  - No charges for receiving calls while roaming
  - Prevailing local tariff rates in the visited country applies to inbound roamers with no discrimination between inbound roamer and local subscriber of visited networks.
  - Two pilots [(1)]projects were initiated which has been quite successful and gave birth to One Africa Network + demonstrated a compelling reason to establish an African Clearing House Regulation
  - News steps are planed such as data tariffs, national & regional clearing houses Validation of regulatory draft …

- ECOWAS has adopted on Roaming on Public Mobile Communications Networks in the Region, which was approved by the Council of Ministers in December 2017.

International roaming

Why?

Findings
Before AUC, Smart Africa, RECs initiatives
- From the consumers' point of view: • Main obstacle is the unaffordable prices • Substitution offers such as buying a local SIM card, or using OTT (over-the-top) services on Wi-Fi networks, but drawbacks (registration for a SIM cart, accessing to WiFi…) - From the operators' point of view,- • Few or no incentives to reduce roaming rates • High prices generate high margins • Current price-elasticity low (fear of bill shock, opacity…) - From regulators' point of view • Existence of structural bottlenecks preventing decrease in roaming rates, (price of international bandwidth, high level of MTR and ITR, existence of taxes or price floors on international incoming traffic…)
After launch of AUC, Smart Africa, RECs initiatives
As usual , we have not comprehensive and comparable data for the Continent , but seems to evolve positively

Outputs	
COMPETITION	
AVAILABILITY (services)	
AFFORDABILITY (services)	
INTEGRATION (Networks and services at regional Level)	

International roaming

Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**NO**	AUC Guidelines Smart Africa Initiative ECOWAS initiative
Opportunity to set specific and harmonized enabling legislation/regulation	**YES**	Regional tariff and QoS regulation on transborder communications
Concrete results are expected and can be measured easily	**YES**	e.g. The last results published by Smart Africa for Northern Corridor) • Revenues increase by 58% • Costs reduction by 45% • Margin increase by 218% • Roaming traffic increase by 911%
Relevant to the goal of creating a single African digital market	**YES**	Obvious
Consistent with the policies or strategies developed by AU in this area.	**YES**	Cf. General objective of promoting digital usages
Enough Members States are interested (>15)		

5. Implementation of a cross-border dispute settlement mechanism

Context

- While the independence of national regulators is far from being achieved in all the countries of the Continent and none of the RARs has any enforceable power, let alone coercive, it seems premature for a continental regulator with such skills to emerge
- The BEREC often taken as a model, 10 years after its creation has only limited powers and entangled with those of the NRAs and the European Commission (cf. new regulation in December 2018)
- The powers of BEREC are exercised in the European context of a highly harmonized and binding regulatory framework in which the European Commission has strong control and sanctions powers which it does not hesitate to invoke
- The case of the African continent is radically different (harmonization and weak constraints) which makes the BEREC model non-transposable
- However, designing mechanisms for the settlement of cross-border disputes is a path that would be interesting initiative in the short term.
- For example, the cross-border regulation mechanism for access to national and international bandwidth within the ECOWAS area, as provided for in Article 9 of Regulation C / REG 19/12/16 deserves to be reviewed and extended to other topics than that of access to bandwidth.

Implementation of a cross-border dispute settlement mechanism

Why?

Findings
Operational mechanisms to solve transborder dispute do not exist while the footprint of networks are multi countries Idem for Spectrum issue
Attempts to take into account cross-border regulatory issue have been done through bilateral MoU (2 countries involved) or guidelines for transborder interconnection (CEEAC)

Outputs	
COMPETITION	
AVAILABILITY (services)	
AFFORDABILITY (services)	
INTEGRATION (Networks and services at regional Level)	

Implementation of a cross-border dispute settlement mechanism

Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**NO**	We are not aware of similar initiative (at continental level)
Opportunity to set specific and harmonized enabling legislation/regulation	**YES**	Guidelines of cross-border dispute settlement could be elaborated by RARs
Concrete results are expected and can be measured easily	**YES**	Number of cases handled and solved thanks to the cooperation process implemented
Relevant to the goal of creating a single African digital market	**YES**	Obvious
Consistent with the policies or strategies developed by AU in this area.	**YES**	Obvious (e.g. : PIDA)
Enough Members States are interested (>15)		

6. Affordability / accessibility of services due to lack of competition

Context

- xxx

Affordability / accessibility of services due to lack of competition

Why?

Findings
Tariff regulation are not agile enough
Market analysis are not handled regularly and often not sufficiently focused on on bottleneck
Cost modelling remains on voice
There is still lack of competition on wholesale capacity offer
There is no pan-African competition law and if it exists at regional or national level it is still very poorly implemented in Africa

Outputs	
COMPETITION	
AVAILABILITY (services)	
AFFORDABILITY (services)	
INTEGRATION (Networks and services at regional Level)	

Affordability / accessibility of services due to lack of competition

Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**NO**	
Opportunity to set specific and harmonized enabling legislation/regulation	**YES**	
Concrete results are expected and can be measured easily	**YES**	
Relevant to the goal of creating a single African digital market	**YES**	
Consistent with the policies or strategies developed by AU in this area.	**YES**	
Enough Members States are interested (>15)		

7. Data regulation or regulation by data

Context

- xxx

Data regulation

Why?

Findings

Outputs	
COMPETITION	
AVAILABILITY (services)	
AFFORDABILITY (services)	
INTEGRATION (Networks and services at regional Level)	

Data regulation

Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**NO**	
Opportunity to set specific and harmonized enabling legislation/regulation	**YES**	
Concrete results are expected and can be measured easily	**YES**	
Relevant to the goal of creating a single African digital market	**YES**	
Consistent with the policies or strategies developed by AU in this area.	**YES**	
Enough Members States are interested (>15)		

8. Digital taxation
Context

- Under their traditional telecommunications activity, operators, mainly mobile operators, are subject to“ specific" taxes or to charges found in most countries of the world: universal service, R&D, control of authorization obligations ("regulatory charge“) as well as charges for the use, management and control of scarce resources (frequencies and numbering).
- In addition to these old forms of taxation of the sector, new forms of taxation have emerged in recent years also specific, as they apply only to telecommunications operators, but are characterized by their chronic instability. In other words, their unpredictability for the actors of the sector and the fact that they do not benefit the sector but benefit either the general budget of the State or from other sectors
- Some of these new forms of taxation directly impact the prices charged to users acting as "over VAT" collected by operators for the benefit of the State, which increases the weight of the cost of communications in the household budget, particularly in countries where GNI is the lowest
- Some African governments are experimenting new taxes on Social Media and mobile money usages that could have detrimental effect on market development and digital inclusion

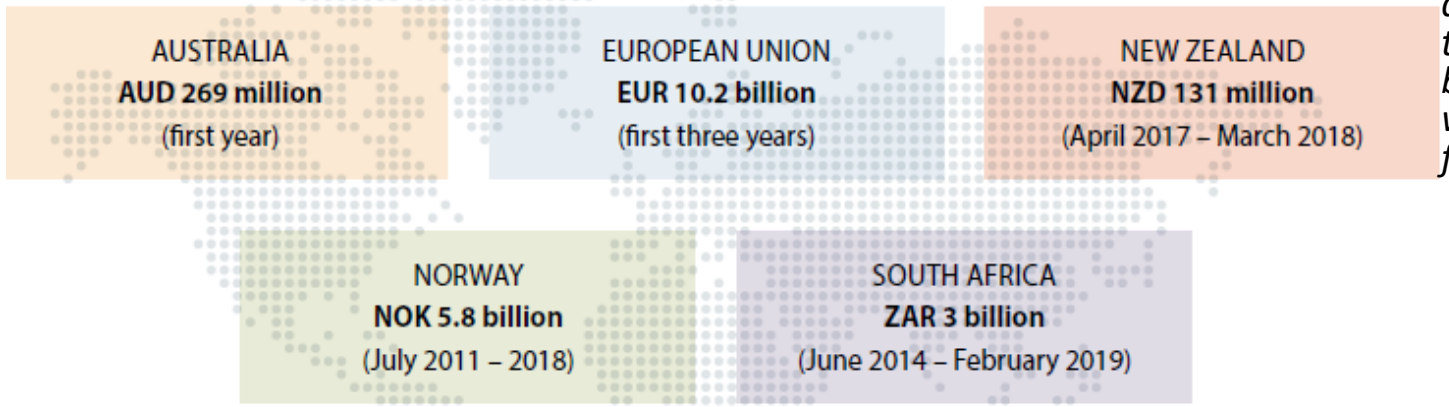
The above context lead to several risks

- **Risk of disincentive to investment**
- **Artificially increase of the cost of usages & equipment for users**
- **Putting a brake on digital inclusion**
- **While African states are still struggling to broaden their tax base due to the importance of the informal economy, they are already suffering the problems of erosion of the tax base and the transfer of benefits raised in the context of the digital economy**

Digital taxation e.g.: VAT Issue

Figure 1. **Revenues raised by jurisdictions implementing the recommended measures**

Cross-border B2C supply of digital services and intangibles



"High risk that services & intangibles delivered over Internet (such as streaming films or music) were escaping VAT in any jurisdiction, and that there was also a broader challenge for tax authorities to collect the VAT on cross border supplies from online sales, particularly where these are acquired by private consumers from suppliers abroad (B2C or B2B sales) "

Source : OECD/G20 Inclusive Framework on BEPS – Progress report July 2018-May 2019.

Digital taxation Why?

Findings
Disparity in the tax burden on the sector based on the country
Tendency to stack new taxes, some of which directly penalizes users
High level and lack of harmonization of customs duties
Lack of comprehensive understanding and consideration of the new tax challenges related to the digital economy
Collaboration between African States is required to be able to withstand Internet giants' diktats who push consumer countries to abdicate tax revenues in addition to delivering information they underestimate the value

Outputs	
COMPETITION (1)	
AVAILABILITY (services)	
AFFORDABILITY (services)	
INTEGRATION (2)	

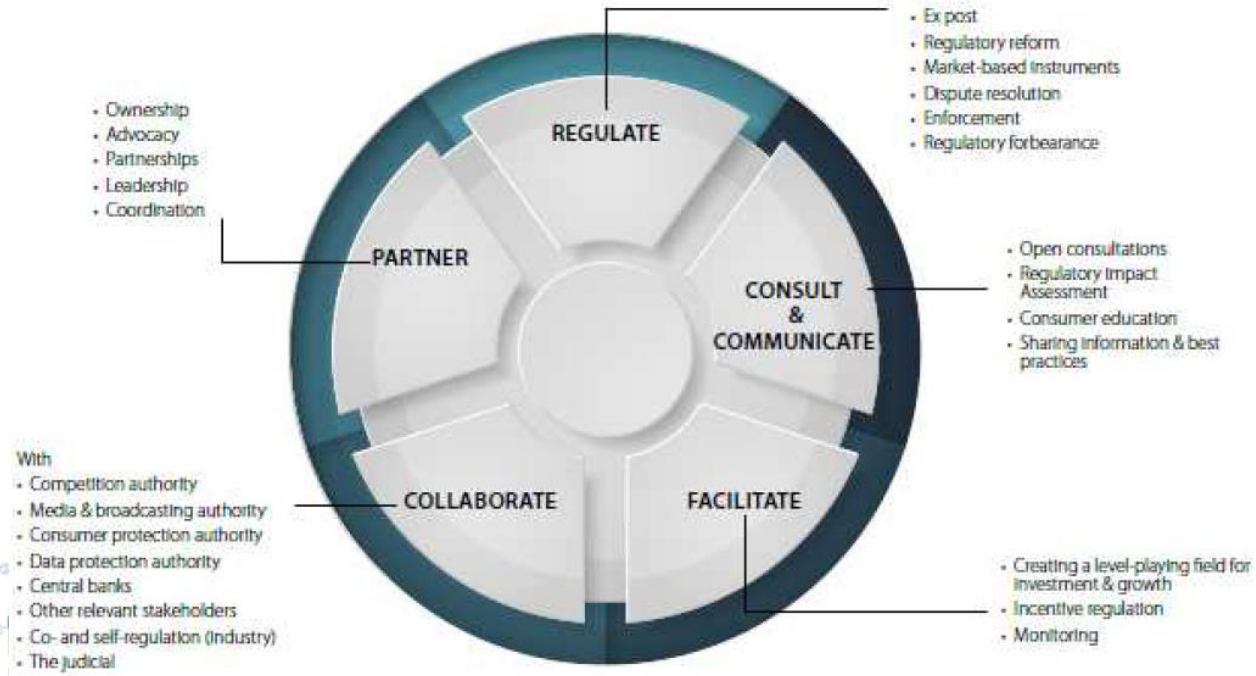
(1) Specific competition issue related to gap between OTT and operators with respect to tax regime.
(2) Disparity in tax regime could impact private operators' strategy to invest more in the countries with most light taxation

Digital taxation

Relevance?

(1)Base Erosion and Profit Shifting

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**YES**	National initiatives such as taxing mobile money transactions or participation to OCDE task force on BEPS (1) but no collective reflexion & strategy at African continental level
Opportunity to set specific and harmonized enabling legislation/regulation	**YES/NO**	Tax legislation amendments at national level and tax cooperation mechanism between Member States on specific and common tax issues Involves firstly the Finance ministries ?
Concrete results are expected and can be measured easily	**YES**	Increase of State Member revenues Better repartition of the tax burden between classic telecommunication activity and new economy Tariff decrease on equipment and services for consumers Increase of transborder electronic trade
Relevant to the goal of creating a single African digital market	**YES**	to reduce the administrative burdens on businesses arising from different Tax regimes
Consistent with the policies or strategies developed by AU in this area.	**YES**	The deeper trade integration is, the stronger becomes the rationale for tax harmonization. The regional dimension of tax harmonization is thus a consequence of the regional dimension of economic integration
Enough Members States are interested (>15)		



"The wheel of collaborative regulation " Source ITU

Priorities after access issues

With respect to the following priorities, Outputs in term of access (availability, affordability etc.) are not appropriate
Demand side indicators are more relevant but remain to be specified subject to their availability at continental level.
Additionally, with the priorities below, we enter in a new era of regulation namely "collaborative regulations" to support the ICT dissemination in different areas like financial inclusion heath and agriculture …
However, in any case a default of pan African approach would be detrimental in terms of integration

9. Mobile money
Context

- Sub-Saharan Africa dominates the world in terms of adopting and using mobile money
- In 2017, the Region had close to 250 mobile money accounts per 1000 adults, compared with 150 accounts per 1000 adults in Asia, 125 accounts per 1000 adults in Latin America and Europe, and 50 accounts per 1000 adults in the Mena area (Sources FMI)
- More and more money mobile services allow transactions between the mobile operators and the banks. An opportunity to accelerate financial inclusion while the average rate of bank account penetration is around 10%
- This evolution involves a lot of challenges that will have to be addressed in particular through regulations and the appropriate secure infrastructure

Mobile money Why?

(1) Transborder transactions and interoperability cf. AfCFTA objectives

FINDINGS	Regulation has a material impact on mobile money adoption and usage
	Five major themes dominated the mobile money regulatory landscape: taxation, KYC, cross-border funds transfers, national financial inclusion strategies and data protection
	Security and trust are also fundamental: e.g.: consumer protection, data protection and privacy and cybercrime
	Majority of the regulatory frameworks is from central banks; however telecom regulators are also concerned on specific issues (VAS regime, access to codes USSD operators ...)

OUPUTS	**INTERNET USE**	
	DIGITAL INCLUSION	
	CYBER SECURITY & CONSUMER PROTECTION	
	INTEGRATION (1)	

Mobile money Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**NO**	Numerous fora exist on this topic with significative collaboration between providers and regulators to achieve the common goal of developing mobile money services
Opportunity to set specific and harmonized enabling legislation/regulation	**YES**	Central bank regulation including regional central bank (WAEMU/BCEAO) on Digital Financial Services (DFS) + Peripheric telecom/ICT regulation USSD , VAS
Concrete results are expected and can be measured easily	**YES**	Number of registered mobile money accounts Transaction volume per capita or per country Quality and variety of the offer
Relevant to the goal of creating a single African digital market	**YES**	Transborder transaction / e-commerce / AfCFTA
Consistent with the policies or strategies developed by AU in this area.	**YES**	Digital Trade & Financial Services is a critical sector to drive digital transformation (**Digital Transformation Strategy for Africa)**
Enough Members States are interested (>15)		

Note: Mobile Money could be considered per se is as an indicator of Empowering society among other considers indicators that portray the evolving role of the digital economy in people's life, how they access and use digital technologies, and their abilities to fully exploit their potential.

10. Net Neutrality

Context

- Net neutrality is a founding principle of the Internet which guarantees the free circulation, without discrimination of the content on the web.
- It has myriad implications around broadband network investment, connectivity prices, technology innovation, competition but also in terms of respect for the privacy of Internet users, guaranteeing freedom of expression and quality and continuity of services offered on the Internet.
- Thus , preserving the neutrality of the Internet is also, for some, a democratic issue. Net neutrality puts citizens on an equal footing and allows everyone to express themselves freely
- On the other hand, guaranteeing the principle of Internet neutrality does not amount to refusing any traffic management practice
- If broadband becomes more affordable and therefore more used in Africa, the question of Internet neutrality could become central in Africa as well and thus could preferably be treated in a harmonized way on the Continent.

Net Neutrality Why?

FINDINGS	Only the most recent frameworks mention expressly the Net Neutrality principle in Africa (Benin, Senegal Nigeria…) . Most of the others still rely on the former concept of Network Neutrality or Correspondence Neutrality
	From an economic point of view, considering the level of development of the broadband market in Africa, the European or the US debate on Net Neutrality is not transposable mutatis mutandis to the Continent
	There are no reliable data in Africa on Zero-rating (1) – the practice of excluding some traffic from overall data caps – despite it has received a considerable amount of attention in the debate about Net Neutrality.
	Except for political reasons the Net Neutrality seems to be respected in the Continent

OUPUTS	INTERNET USE	
	DIGITAL INCLUSION	
	CYBER SECURITY & CONSUMER PROTECTION	-
	INTEGRATION (1)	

(1) Zero-rated services, which enable some mobile operators to provide access to minimalized version of the given service without data charges are a non-neutral approach.
Platform like Facebook, Wikipedia and Google have built special programs to use zero-rating as means to provide their service more broadly into developing markets
(2) No pan African approach

Net neutrality

Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	YES	As far as we know , no pan African initiative on this topic
Opportunity to set specific and harmonized enabling legislation/regulation	YES	See the example of the new digital code in Benin or EU's Regulation on open Internet access
Concrete results are expected and can be measured easily	PARTIAL	Compliance results could be expected such as adoption of Net Neutrality provisions in regional and national legislative framework . However impact on the market or society will be difficult to measure
Relevant to the goal of creating a single African digital market	YES	Would create a protective pan African legal environment for big and Small platforms against the operators' revendications for flexibility to get the larger OTTs to pay for the traffic they generate
Consistent with the policies or strategies developed by AU in this area.	YES	Consistent with the objective of fostering digital usages
Enough Members States are interested (>15)		

11. Protection of personal data and location of data

Context

The latest jingle that “”***data is the new oil***” hassled to the emergence of data protection laws across the world, creating a variety of legal and commercial challenges . Among other issues , one such challenge relates to data localization restricting the cross-border transfer of data.

The Cloud, the Blockchain, mainly the fact that Google, Apple, Facebook and Amazon (GAFA), and all digital platforms massively collect data from their users represents new dangers with regard to the protection of personal data - and therefore of privacy

In Europe, the General Data Protection Regulation (**GDPR)** should fundamentally change the way data is processed in all sectors and should become a global standard by trying to prevent these risks with several innovations such as :

- Extra territoriality: application to companies outside the EU processing data on the activities of EU organizations and those targeting EU residents through profiling or offering goods and services to them;
- Requirement of "explicit" and "positive" consent of the user;
- Right to erasure, also called "right to digital neglect" (possibility to ask Google to delete a link to a Facebook page for example);
- Right to portability of personal data (to switch from one social network to another, for example);
- "Data protection from the design stage" and "security of the IS by default" (or also "security by design", that is to say the security and protection of the data from the design of the software of services);
- Hight penalties of up to 4% of the annual worldwide turnover of a company or 20 million euros (highest amount retained), in case of non-compliance with the provisions of the GDPR;
- Creation of the European Data Protection Board.

In addition, the GDPR Considers that this is a human rights issue because much of our data is shared online and creates the risk of misusing digital technologies to control citizens.

In Africa, this is a challenge as there is little legislation and, in some cases, national telecom regulators are required to manage data protection in the absence of national protection authorities

However, the African Network of Personal Data Protection Authorities (ANPDPA) was created in 2016 and its office holders elected in 2018. Its first meeting was held in June 2019 in Ghana

Protection of personal data and location of data
Why?

FINDINGS
Many African countries have enacted or are in the process of enacting privacy and data protection laws, in addition to regional or pan African privacy regulations (Malabo convention)
Even frameworks that have been accepted at whatever level may not be fully in force
The legal frameworks for safe trans-border flow of data and information are inadequate. Very few countries have provisions in their law requiring companies to store user data in servers physically located in the country (Kenya , South Africa, others ?)
There is no clear precedent for the impact data localization laws might have in African markets (1).

OUPUTS	
INTERNET USE	
DIGITAL INCLUSION	
CYBER SECURITY & CONSUMER PROTECTION	
INTEGRATION (1)	

(1) To this point, the main markets to have implemented, or strongly considered pervasive data localization requirements have been relatively large economies: China, Russia, India. As a block, African markets would undoubtedly carry similar weight. But Africa is not a block, and the relatively small size of most markets makes the consequences (intended, and unintended) of data localization obligations difficult to read.

Protection of personal data and location of data

Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	PARTIAL	See the initiative of the African Network of Personal Data Protection Authorities (ANPDPA)
Opportunity to set specific and harmonized enabling legislation/regulation	YES	Obviously current legislation could be improved and better implemented
Concrete results are expected and can be measured easily	YES	New legislations are adopted Data Protection Authority are operationalized Results based on demand side indicator could be difficult to measure
Relevant to the goal of creating a single African digital market	YES	Data and its corollary data protections beyond borders are key for electronic commerce
Consistent with the policies or strategies developed by AU in this area.	YES	Consistent with the objective of fostering digital usages and the cross-cutting theme of the Digital Transformation Strategy for Africa: cyber security, privacy & personal data protection
Enough Members States are interested (>15)		

12. Electronic Waste
Context

- As a result of rapid technological changes and falling prices, millions of tons of high-tech electronic devices are becoming obsolete making e-waste one of the major environmental challenges of the 21st century.
- Electronic waste management is a major challenge for many African countries due to lack of awareness, environmental legislation and limited financial resources.
- In addition, African countries are not only confronted with local waste, they are also importing electronic waste that is not hunted by the rest of the world. New and innovative solutions are needed to integrate the informal sector of e-waste recycling across the Continent into sound and sustainable e-waste management strategies.
- Only a few countries in the Continent have policies and laws specific to e-waste. Some of them are developing various models of Extended Producer Responsibility (EPR) systems as part of their solution to the problem of electronic waste.
- However recycling activities are still dominated by poorly equipped informal sectors, with inefficient resource recovery and environmental pollution.

Electronic waste Why?

FINDINGS

Ways and means, policies and legislations that shall be adopted by the Continent to deal with this major challenge will be multiple :

- Consumer education
- implementation of genuine producer responsibility (EPR) programs for electronics
- Legislative frameworks in line with best standards such the European legislation on Reduction of Hazardous Substances (RoHS)and Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Effective prohibition of e-waste importation
- Taxation
- Control of the informal channels of recycling
- Etc.

These measures need be adopted at continental level in order to concern a market size sufficient to impact the manufacturers; They require far beyond the ICT expertise gathered here

OUPUTS

Sustainable Development Goals (SDGs)
(Responsible Consumption and Production)

Electronic waste

Relevance?

- No relevant in the context of the project of ICT policy, legislation, regulation harmonization?

13. Over The Top Services (OTTs)
Context

- All the major platforms - Apple, Facebook, Google - have a strong presence, (with the notable exception of Amazon) and a critical role in the transformation of telecommunication / ICT markets and their competitive dynamics.
- The new players raise a long list of questions related to their regulation,
- The issue of OTT voice services, given their fierce competition with traditional operators, is the most acute point of friction with telecom regulations, but OTT regulatory issues are far beyond this question and concern several regulators exercising in different fields:
  - dominant positions and competition (competition regulators);
  - telecommunications (telecommunications regulators);
  - the media (regulators of the press, broadcasting and advertising);
- The issues of net neutrality, digital taxation and the protection / location of personal data - which are already part of the regulatory priorities proposed in this section - covers some of the major regulatory issues related to the OTTs model.
- Other friction issues come because operators are subject to a number of costs that do not apply to OTTs:
- Direct costs such as the price of licenses or spectrum
  - Indirect costs arising from different sectoral obligations: quality of service; taxes (payments to the government and the regulator, import taxes, universal service taxes); coverage requirements and sometimes price controls.
  - In addition, African governments have tended to view operators as a cash cow and impose a series of additional tax obligations on them, including schemes to tax incoming international incoming calls via single gateways.
- OTTs are not subject to this type of obligation and, therefore, from a regulatory standpoint, they do not compete on a level playing field. There are two choices that are usually suggested - (i) the same obligations are incumbent upon the OTTs operators; or (ii) the obligations of African operators are eased by changing market conditions which- are neither obvious nor easy to implement.

OTTs
Context (cont.)

- Leaving aside the thorny issue of taxation, it is also difficult to see how regulatory obligations can be imposed on entities with little or no presence in a given African country.
- The other key issue facing telecom regulators is that the level of data revenues is increasingly decorrelated from the infrastructure investment required.
- It is conceivable that in the absence of coercive powers over OTTs, regulators could engage them on a voluntary basis to help address the continent's major infrastructure challenges. A dialogue on how the market can be developed would benefit both data vendors and data services.
- Some countries in Africa seem to have already initiated a reflection on the subject and there are two initiatives at the regional level:
  - The African Council of Regulators under the Smart Africa Alliance issued a note on OTTs stating that the following issues have not been resolved in regulatory terms with respect to: the lack of protection of data of staff; the inability to identify the entity responsible for quality of service; the inability of States to identify users without referring to OTTs who may or may not provide the requested information; lack of knowledge of the rules for the use of personal data; lack of protection framework for vulnerable people (minors, disabled, women, etc.); inability to make emergency calls; the impossibility of enforcing safety orders, particularly listening and tracing; and the impossibility of determining a tax base or collecting royalties.
  - The ICT Regulatory Watch Initiative funded by the World Bank in the ECOWAS zone also has a significant OTTs component (not published to date)

OTTs

Why?

(1) on entend ici par favorable aux OTT une réglementation qui, au minimum, ne restreint pas l'usage des OTT (pas de blocage institué ou toléré par les autorités, pas de restriction à la fourniture de la VoIP, etc.), et, au mieux, consacre le principe de la Neutralité du Net

FINDINGS

OUPUTS

- **INTERNET USE**
- **DIGITAL INCLUSION**
- **CYBER SECURITY & CONSUMER PROTECTION**
- **INTEGRATION (1)**

OTTs Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**PARTIAL**	
Opportunity to set specific and harmonized enabling legislation/regulation	**YES**	
Concrete results are expected and can be measured easily	**YES**	
Relevant to the goal of creating a single African digital market	**YES**	
Consistent with the policies or strategies developed by AU in this area.	**YES**	
Enough Members States are interested (>15)		

14. Internet of Things (IoT)
Context

- The Internet of Things (IoT) refers to an ecosystem in which applications and services are driven by data collected from devices that act as sensors and interface with the physical world. Part of the underlying infrastructure of the IoT is machine-to-machine (M2M)
- Important IoT application domains span almost all major economic sectors including health, education, agriculture, transportation, manufacturing, electric grids and many more.
- Africa is an active player in this trend of connecting things to the Internet with very interesting and innovative use cases on the continent. In other words, IoT technologies are becoming a central part of the growth of the African economy.
- From policy, legislative and regulatory point of view , IoT bring several challenges :
    - Licensing (new IoT aggregators, scope of license etc..)
    - Spectrum (regulation will change based on the service and also technology, e.g. Long range (NB-IOT, Sigfox, LoRA) Vs short range (RFID, Bluetooth, WiFi); It will also change based on the band used (free vs licensed)
    - Numbering and addressing (IoT identifier)
    - International roaming
    - Interoperability and Standards (Discussed in detail other sessions)
    - Data protection Privacy, consumer protection and Security
    - Competition (platform competition, can the whole business or a smart city be treated as one customer reducing choice)
    - RoW: Use of Street furniture
    - (…)

IoT
Why?

FINDINGS

There is no policy , legislation and a fortiori regulation related to IoT in Africa

Source IUT

OUPUTS

- **INTERNET USE**
- **DIGITAL INCLUSION**
- **CYBER SECURITY & CONSUMER PROTECTION**
- **INTEGRATION**

IoT Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**PARTIAL**	"Smart Cities" flagship initiative is led by the Republic Rwanda as part of the Smart Africa Alliance
Opportunity to set specific and harmonized enabling legislation/regulation	**YES**	Spectrum; Numbering and addressing ; International roaming Interoperability; Data protection Privacy, consumer protection and Security; Competition (platform competition, can the whole business or a smart city be treated as one customer reducing choice) ; Use of Street furniture(…)
Concrete results are expected and can be measured easily	**YES**	Number of users Numbers of services
Relevant to the goal of creating a single African digital market	**YES**	Create a common set of tools to support the African cities to develop their own smart city initiatives.
Consistent with the policies or strategies developed by AU in this area.	**YES**	Consistent with the objective of fostering digital usages and to disseminate these usage in all the aspect of society and economy
Enough Members States are interested (>15)		

15. Smart cities
Context

- **In 2050, the African urban population is expecting to reach 1, 3 Bn** (1950 XXX)
- *"A city can be defined as 'smart' when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic development and a high quality of life, with a wise management of natural resources, through participatory action and engagement."(Venugopal Ramanathan, Business Consulting)*
- *"An innovative city that uses ICTs [information and communication technologies] and other means to improve quality of life, efficiency of urban operation and services and competitiveness, while ensuring that it meets the needs of present and future"* (IUT)
- Broadly speaking, smart cities aim to use new data-collecting technology and modernized infrastructure to provide safer and more efficient services for their citizens.
- Cape Town is a good example of such a solution. The South African city has partnered with network providers to acquire data from sensors placed around the city. This data helps the city run more effectively in several ways ranging from traffic monitoring to waste management, crime detection and fire response.

Smart cities Why?

FINDINGS

There is no policy , legislation and a fortiori regulation related to IoT in Africa

Source IUT

OUPUTS

- **INTERNET USE**
- **DIGITAL INCLUSION**
- **CYBER SECURITY & CONSUMER PROTECTION**
- **INTEGRATION**

Smart cities

Relevance?

Criteria	Compliance	Comments
To avoid duplication with other similar initiatives on the continent	**PARTIAL**	
Opportunity to set specific and harmonized enabling legislation/regulation	**YES**	
Concrete results are expected and can be measured easily	**YES**	
Relevant to the goal of creating a single African digital market	**YES**	
Consistent with the policies or strategies developed by AU in this area.	**YES**	
Enough Members States are interested (>15)		

(1) Strength, Weakness, Opportunities and Threats
(2) Political, Economic, Social, Technology, Legal and Environment

Experts' parallel work on the regulatory priorities

Once the short list of regulatory priorities has been defined, it is proposed to establish small groups of experts to work on 1 or 2 regulatory priority.

During the work to be done in small groups and per each of the selected priorities , the experts shall:

- Submit the priority to the SWOT (1) & PESTLE (2) framework analysis to analyze the priority
- Fill a dashboard determining objectives , indicators and expected outputs ;
- Establish a work plan

To do so, several template are provided in order to feed into the framework

Templates can be filled in French or English

Prior list of suggested priorities
Do you have other topics to propose?

- *Conditions of entry into the market (authorization / licensing regime)*
- *Measures to reduce the cost of deploying broadband networks*
- *Quality of service and consumer satisfaction:*
- *Digital taxation*
- *Mobile Money*
- *Net Neutrality*
- *Protection of personal data and location of data*
- *Electronic waste*
- *Internet of Things (IoT)*
- *Over The Top Services (OTTs)*
- *Regulation by data*
- *Implementation of a cross-border dispute settlement mechanism*
- *Smart Cities*
- *Affordability / accessibility of services due to lack of competition*
- *International Roaming*
- *Others?*

Do not forget that to be acceptable a priority requires to meet some criteria

CRITERIA	COMPLIANCE
To avoid duplication with other similar initiatives on the continent	?
Opportunity to set specific and harmonized enabling legislation/regulation	?
Concrete results are expected and can be measured easily	?
Relevant to the goal of creating a single African digital market	
Consistent with the policies or strategies developed by AU in this area.	?
Enough Members States are interested (>15 ?)	?

Framework for Analysis of Priority Issues template

- Use SWOT & PESTLE Analysis to analyze selected priority issues
  Digital Taxation in the Digital Economy (As an example)

	Strength	Weakness
Political issues around Digital Taxation		
Economic issues around Digital Taxation		
Social issues around Digital Taxation		
Technology issues around Digital Taxation		
Legal issues around Digital Taxation		
Environment issues around Digital Taxation		

	Opportunities	Threats
Political issues around Digital Taxation		
Economic issues around Digital Taxation		
Social issues around Digital Taxation		
Technology issues around Digital Taxation		
Legal issues around Digital Taxation		
Environment issues around Digital Taxation		

(1) Digital Taxation in the Digital Economy (As an example) Strength, Weakness, Opportunities and Threats
(2) Political, Economic, Social, Technology, Legal and Environment

Use this Dashboard Template to define objectives/indicators/expected outcomes

"Conditions of entry into the telecommunications template" (As an example)

Regulatory priority	Conditions of entry into the telecommunications market
Regional or national champion	Designate a REC or country
Sub domains	— Authorization — Special incentives (eg tax) — Other
High level objective	Reduce barriers to market entry
Specific objectives	— Development of Competition: — Geographical and tariff accessibility — -Quality of services, particularly in terms of available throughput — -Development of uses
Indicators for measuring results	1) Harmonization / implementation in national law: Adoption of (the) measures to reduce the barrier to market entry 2) Harmonization / impact — Competition: Number of operators present on the national market (correlated or not with GNI population, etc.); — Accessibility: infrastructure coverage; tariffs (notably lower prices recorded over the last 3 years), etc. — Quality of services, especially in terms of available throughput — development of utilization: penetration rate of services (different types and levels of services to be defined)
Expected results based on the above indicators	On the horizon of — The telecommunications activity regime has been modified on the basis of the principle of a general authorization. The licenses are reserved for the right to use the spectrum — At least one wholesale operator and two ISPs have entered the market — An average rate of X Mbit is available for X% of the population — Retail offer rates for X Mbits are below X — The penetration rate of offers (3G, 4G, Adsl, Ftth ...) is greater than X%

Use this Work plan template

Priority area	Operational objectives	Strategy / Flagship projects	SMART [1] Targets (expected results)	Priority Actions	Priority 1=high, 3= low	Estimated start date (year)	Leading implementing partner (only one lead)	Supporting implementing partners (Multiple support)	Ongoing / planned projects	Estimated costs (EUR)
		.								

[1] Specific, Measurable, Achievable, Realistic and Timely.

Roadmap and implementation Plan

Agenda Session 7