



**Autorité de Régulation des  
Télécommunications et des Postes**

# **REGULATORY FRAMEWORK FOR THE QOS OF OTTS – TOWARDS A SUSTAINABLE AND THRIVING DIGITAL ECOSYSTEM**

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**ARTP / SENEGAL**

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« Une autorité de Régulation de référence, acteur déterminant du développement de l'économie numérique, pour un Sénégal émergent »



# Agenda

*I. OTT definitions*

*II. Impacts of OTT on telecommunication services provided by operators in Senegal*

*III. OTT Regulatory Options*

*IV. OTT Impacts on QoS*

*V. Conclusions and recommendations*



## I. OTT definitions

OTT services are delivered through the internet, relying on the existing network infrastructure operated by international and national ISP/Operators and on ad-hoc Computer /Storage Infrastructure and Content Delivery Networks (CDN)

The rapid adoption of connected devices (Smartphones)

**Over the Top services are applications and services delivered over telecommunications networks and directly to end-users by entities that are not necessarily operators of those networks**

Increase of global mobile broadband penetration

Main OTT impacts that have been considered and addressed are the decrease of telecom operator's revenues due to the competition on voice and messaging, and the QoS issues



## II. Impacts of OTT on telecommunication services provided by operators in Senegal

The threat in Senegal is due to the importance of international activity in the business model of operators;

- 1. In terms of average traffic, Senegal occupies the 3<sup>rd</sup> place of international incoming calls (TDM+VOIP). This situation can be explained by its powerful diaspora in addition to the quality of Sonatel network and its partnership policy.*
- 2. It takes to Sonatel more than tens billion dollars per year that strongly contribute to the balance of payment and to the export of services from Senegal, tax excluded.*

*Impacts of OTT on telecommunication services provided by operators in Senegal*

The increasing adoption of OTT applications by our customers negatively impacts the incoming international traffic as well as SMS.

- 1. 25% of Internet users are active users of OTT VoIP solution*
- 2. Incoming international voice traffic Sonatel undergoes every year a decrease of 20-25%*
- 3. 23% of decrease on mobile originated SMS traffic to International between 2010 and 2014.*



## *II. Impacts of OTT on telecommunication services provided by operators in Senegal*

**The OTT bypass : the development of a new form of fraud that ultimately threatens the viability of the international segment.**

***1. In order to take financial benefits from their use, the OTT plan to break into the wholesale market and become terminators for international calls.***

*Impacts of OTT on telecommunication services provided by operators in Senegal*

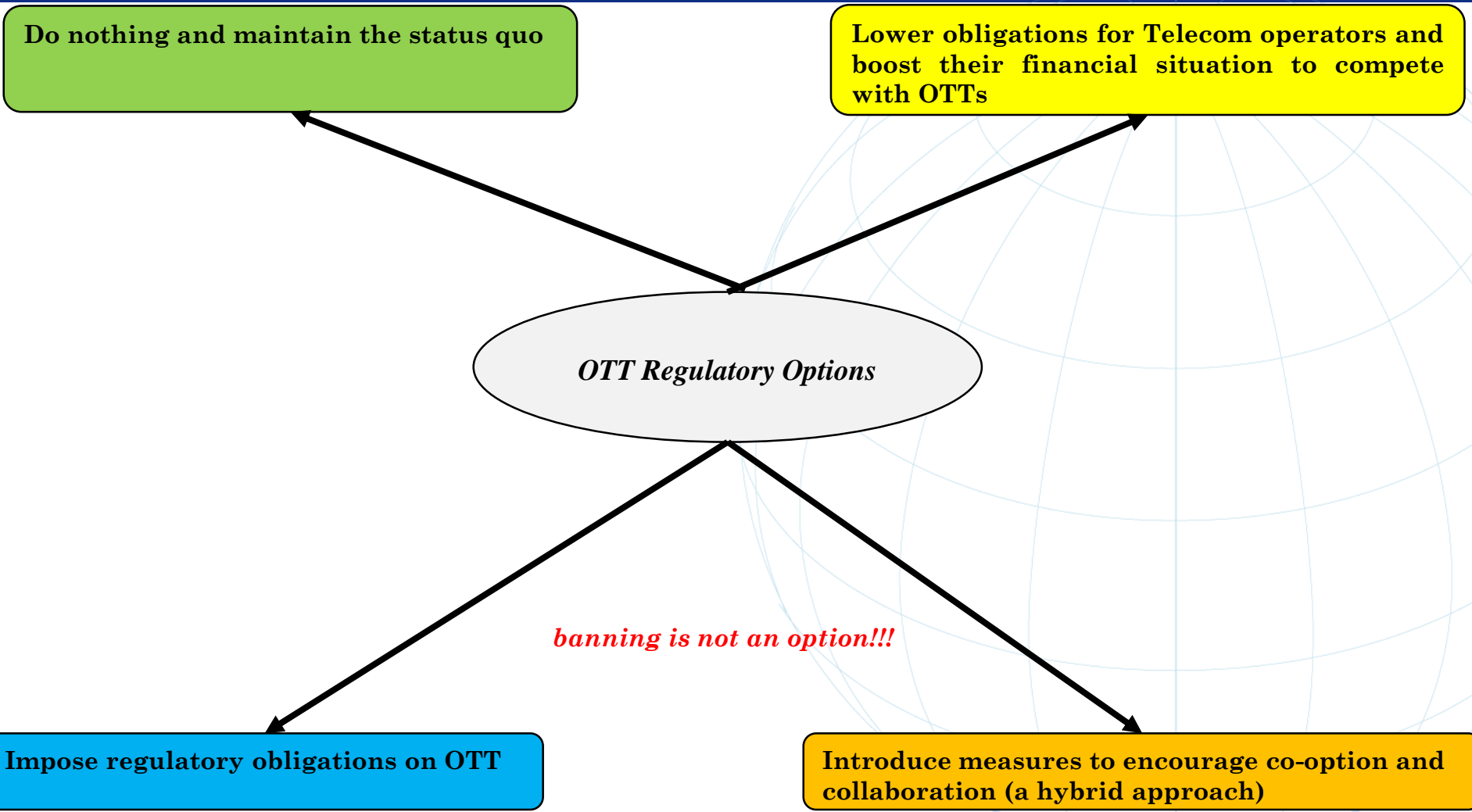
**Operators are investing significant amounts to renew their infrastructure that OTT overload with a huge impact on QoS and without any compensation**

***1. YouTube alone currently represents 20% of Sonatel data traffic; this traffic, with the arrival of the new players in streaming video, double by one to two years;***

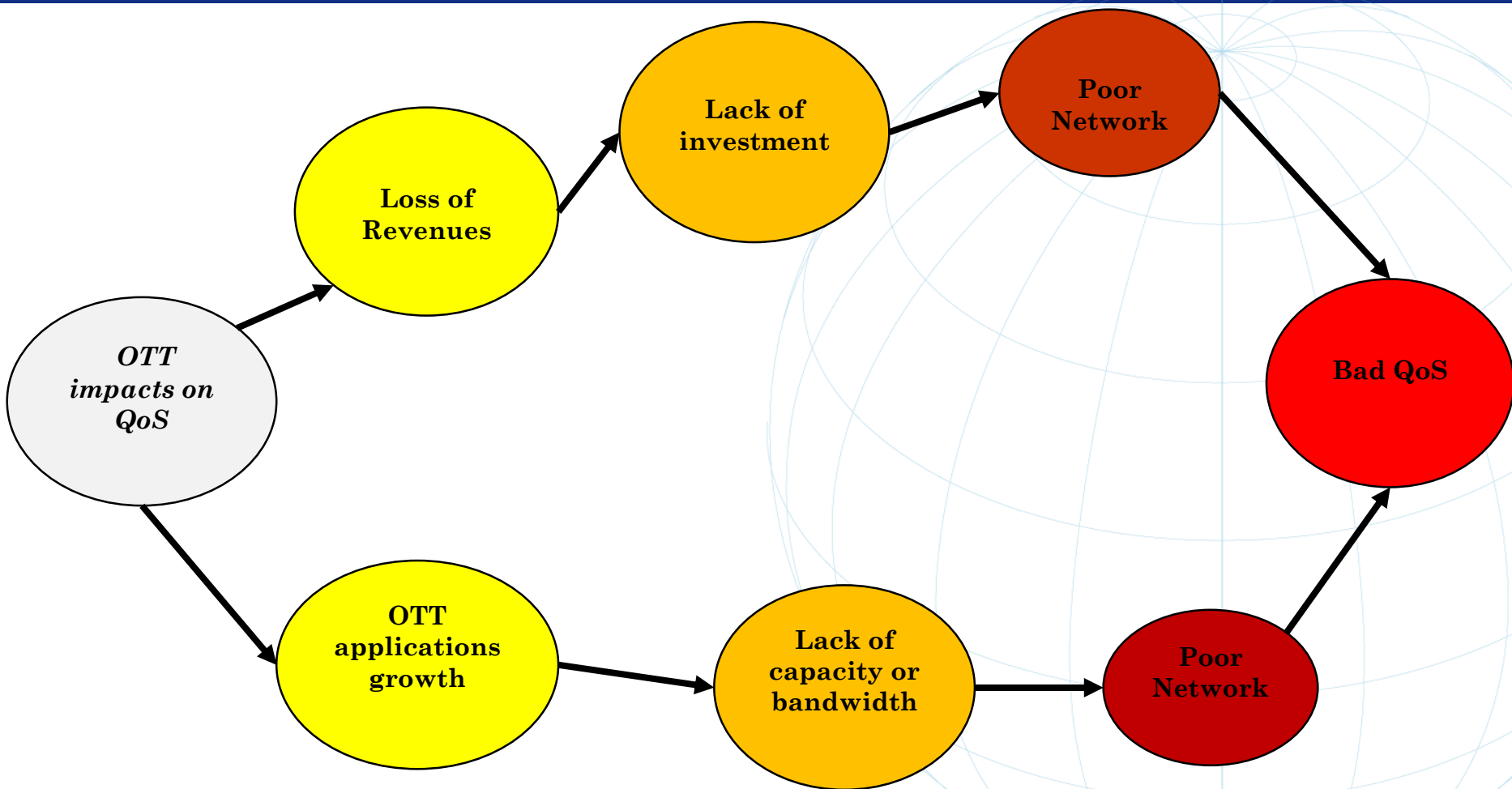
***2. OTT not involved in the operator investment, and use their infrastructure cannibalizing their services.***



### III. OTT Regulatory Options



## IV. OTT Impacts on QoS



## V. Conclusions and recommendations

1. Subject to National Obligations:  
(License, Tax, USO, Lawful interception, emergency obligations,.)
2. Strict Regulation (Competition rules, QoS, Transparency, portability, interoperability, Control...)
3. High pre-investment required and Resources Cost (spectrum, sites, etc..)
4. Mostly local market space and rules

*Telco's versus  
OTT's environment*

1. No Regulation (own policy/rules)
2. No service license required, no Interco Obligation
3. Disruptive models (free, freemium, Ad based etc.)
4. The World as Market Place
5. Scalable investment (no obligation of availability)
6. Limited direct employment

*In our opinion OTT cannot be regulated using the same approaches and instruments used for decades to regulated telecommunication operators almost in term of QoS.*



## V. Conclusions and recommendations

**Provide incentives to the industry**

**Attend to national-level needs and issues**

**“One-solution-that-fits-all” does not exist; the policymakers have to set up OTT regulation almost in term of QoS by taking into consideration**

**Protect our citizens’ interests**

**Create and sustain investor confidence, and remain mindful of future needs of the consumers and the industry**



## *V. Conclusions and recommendations*

*OTTs are critical components of digital transformation. Governments, policymakers and all telco actors have to stand ready to partner to identify policies and programs that can help to ensure high QoS standards and promote local innovation and tech entrepreneurship.*

*Thanks you*



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