

The Rise of OTT Players – What is the appropriate regulatory response?

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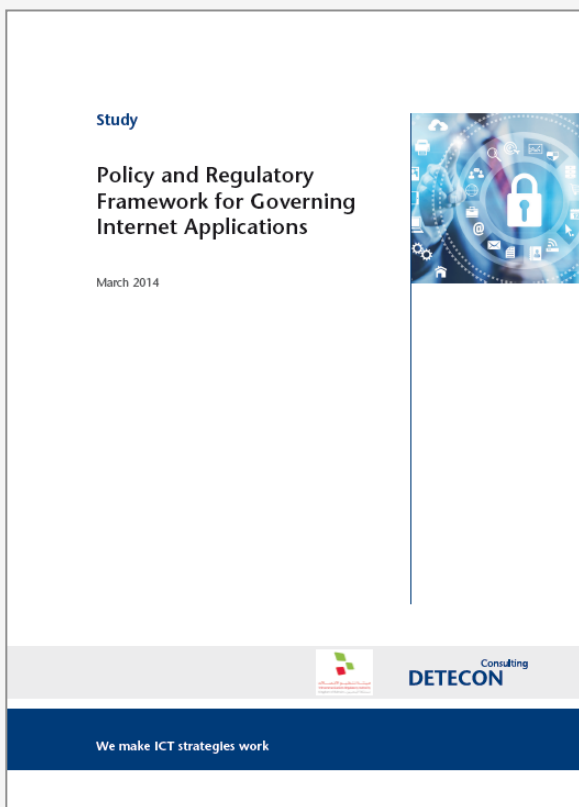
Deutsche Telekom Group



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Detecon performed a study* for TRA Bahrain on regulatory challenges from OTT. This presentation (and the paper) is based on main findings of the study.

Implication of new dynamics in the telecommunications business



1. ■ **Traditional** Telco business and **core** business models have reached their **limits**
 - Price decreases cannot longer be balanced by volume increase
 - Core Telco markets reached **saturation** and started to **shrink**
2. ■ **New players** have entered the markets. **OTT** providers deliver content and applications **directly** to the end user
 - OTT players take a portion from the value chain
 - OTT **business models** not yet **secure**



Profound regulatory implications:

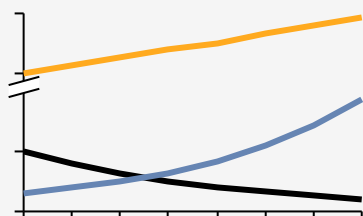
- Market **imbalances** due to different level of regulation of national licensees and OTT players
- Long-term **viability** of broadband networks is **at risk!**

* The study also covers topics of privacy, data protection, and cybercrime. Our paper focuses on the regulatory OTT challenge, only.

Core Telco markets are shrinking. As a result the pure access and transport business case becomes negative – and broadband goals will fail to achieve the targets.

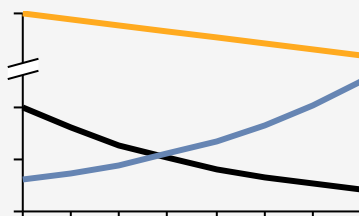
The Telco challenge

From growth....

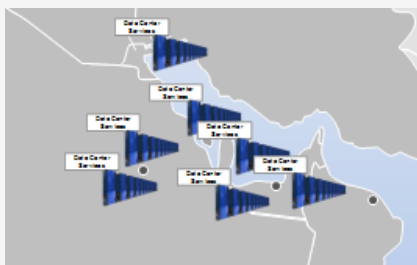


— Price — Volume — Revenue

....to shrinking business



- **Revenues** from core Telco activities are **declining**.
- Operators have to look for **new sources** of income
- Some operators have adopted a strategy becoming an integrated **ICT solution provider**



How many operators can sustain data center business?



What does it mean for national Telco markets?

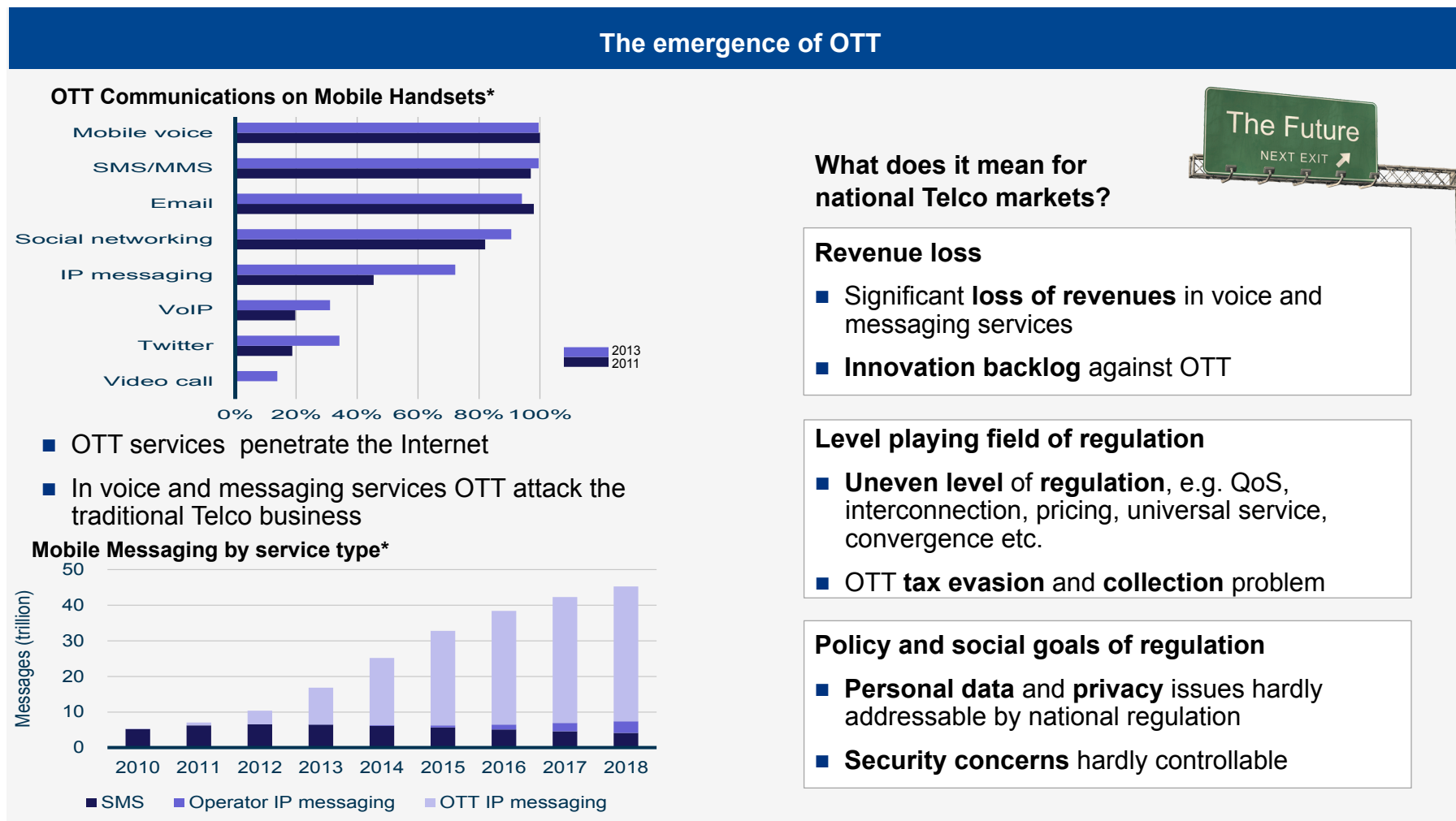
Sustainability of business model

- Operators **losing** from basic services (access and transport)
- **Decoupling** from network and application layer
- New players are entering the value chain – resulting in **fierce competition**

Broadband policy goals

- The **economic value** of access and transport is **decreasing**
- The **pure broadband** business case is getting **unviable**
- Investment in and operations of ultra-fast and reliable infrastructure **will fail** to meet **policy goals**

Over-the-top (OTT) players have entered the scene and have started to take away revenues from national Telco operators.



Source: Analysys Mason

What does it mean for national Telco markets?

Revenue loss

- Significant **loss of revenues** in voice and messaging services
- **Innovation backlog** against OTT

Level playing field of regulation

- **Uneven level of regulation**, e.g. QoS, interconnection, pricing, universal service, convergence etc.
- OTT **tax evasion** and **collection** problem

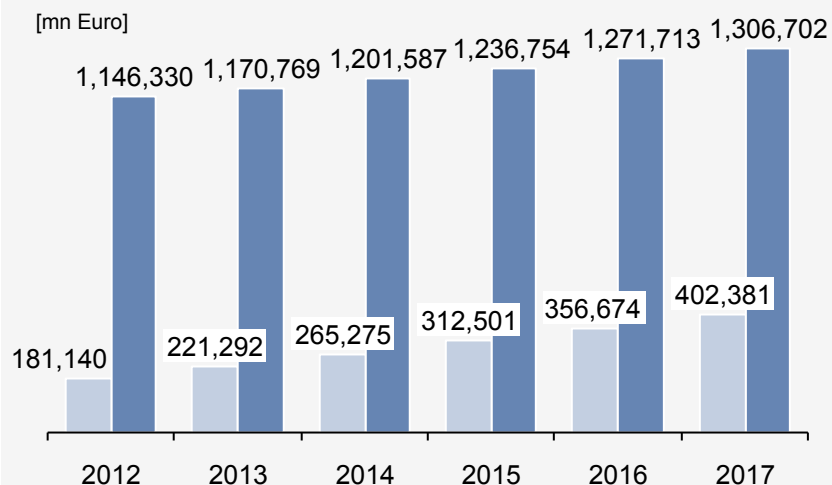
Policy and social goals of regulation

- **Personal data** and **privacy** issues hardly addressable by national regulation
- **Security concerns** hardly controllable

OTT will take ¼ of the total service market by 2014. Main drivers are cloud service offerings followed by e-commerce and search services.

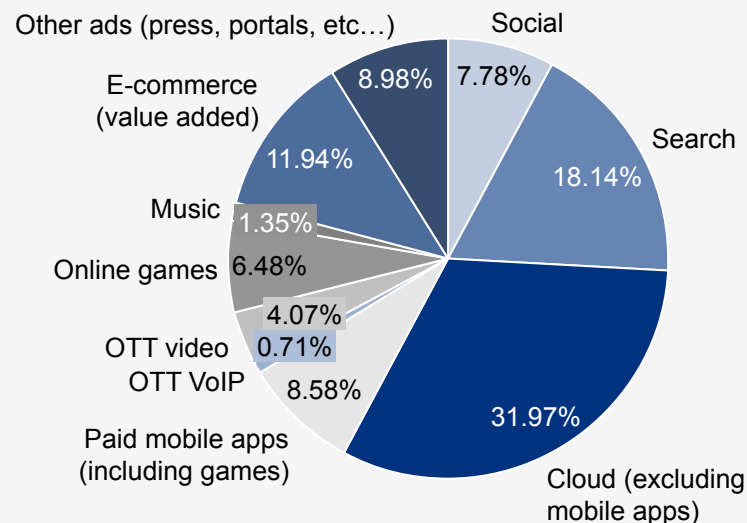
OTT forecasts

Comparison of global Telco and OTT total market



- In 2017 **Telco** will generate 1.3 trillion Euro, OTT 402 bn Euro
- OTT growth by a **CAGR** 2012-2017 of **17.3%**, Telco **2.6%**
- Biggest CAGR comes from **cloud services** (21.4%), followed by **OTT VoIP** (16%) and **social** (15.9%)

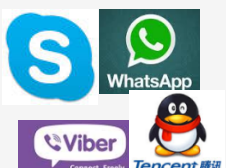
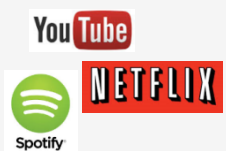


Breakdown of OTT service market 2017



- **Cloud service** will develop into the largest service segment
- **Search** and **e-commerce** will become secondary drivers, followed by social and mobile apps

Source: *idate World Internet Service Markets 2014*

The OTT universe is diverse. Particularly consumer applications are often funded by advertisement – operation itself is not profitable.

OTT business models		
OTT Classes	Example	Revenue source
OTT Communications		<ul style="list-style-type: none"> ■ Advertisement ■ Subscription for premium services ■ Free services
OTT Media		<ul style="list-style-type: none"> ■ Advertisement ■ Subscription for premium services ■ Transaction based ■ Free services
Commerce		<ul style="list-style-type: none"> ■ Transaction based
Social Media		<ul style="list-style-type: none"> ■ Advertisement ■ Subscription for premium services ■ Free services




Question of profitability and market impact

- Business application funded by users, **consumer applications** rely on **advertising**
- **Consumer applications hardly profitable** – free service model has **disruptive** market effects
- High **valuation** not justified by business figures. **Market model** focus is on establishing market presence rather than monetization


➔

- OTT are **demand** and **innovation** drivers, but ...
- ... with the current business model they **extract value** from national markets, and...
- ... **take out resources** that are required for broadband infrastructure investment and operations

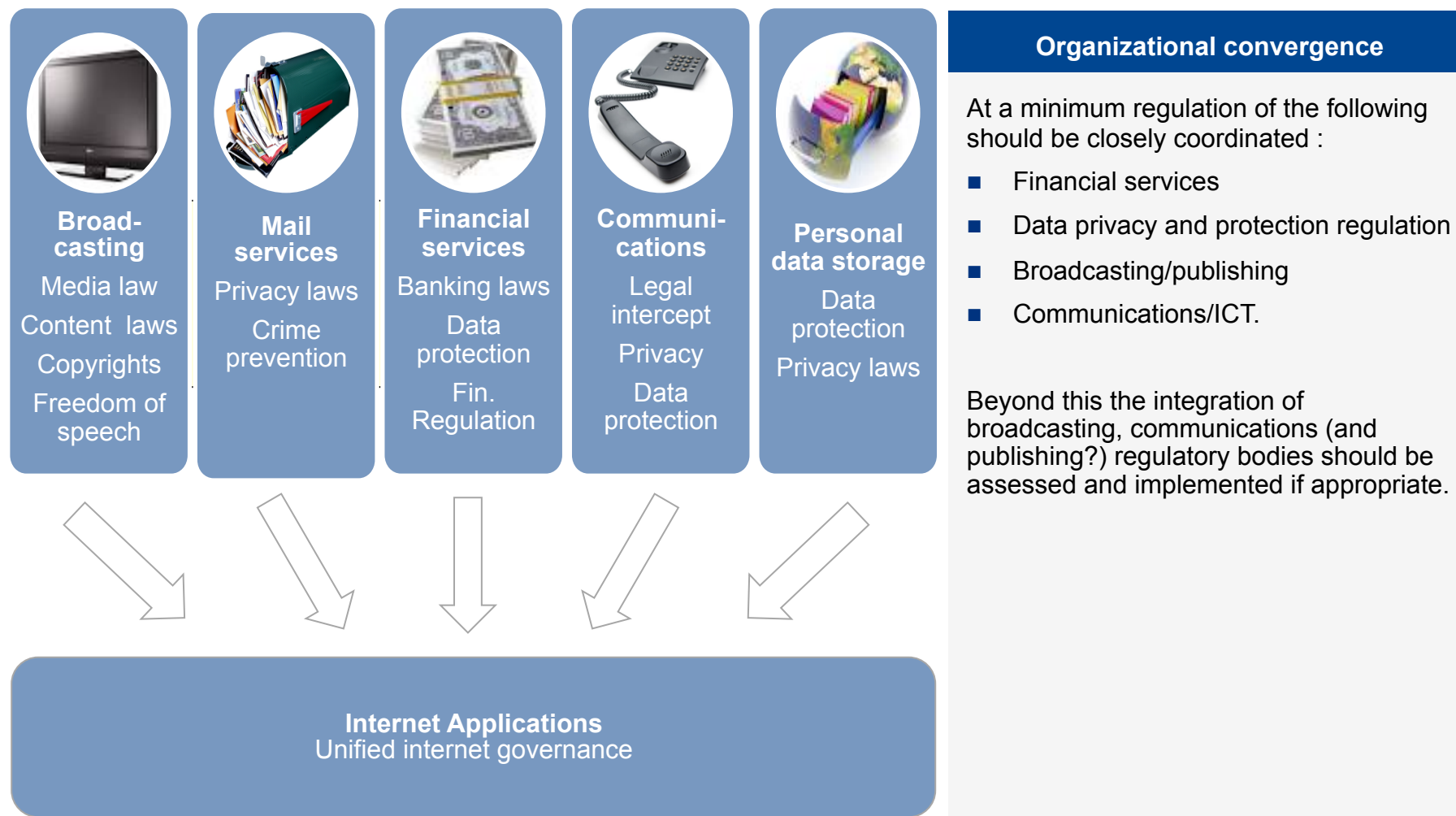
Operators have developed multiple responses to counter the OTT challenge – ranging from blocking to partnering.

How operators face the OTT challenge					
Strategic Focus	Blocking OTT services	Charge OTT provider for network use	Partner with OTT players	Offer own “OTT services”	Offer “advanced integrated services”
Objective	<ul style="list-style-type: none"> Block certain OTT services to secure revenues Make OTT services unavailable or unattractive 	<ul style="list-style-type: none"> Monetize OTT network traffic Apply “eyeball principle” (paradigm shift from ‘content is king’ to ‘access to end-consumer’ is king) 	<ul style="list-style-type: none"> OTT containment Complement own portfolio Secure high value segments by service differentiation 	<ul style="list-style-type: none"> Rebuild OTT portfolio Integrate OTT service in product bundle 	<ul style="list-style-type: none"> Secure revenues from high value segments Capitalize on high value propositions
Examples from MENA		<ul style="list-style-type: none"> None 		<ul style="list-style-type: none"> None 	

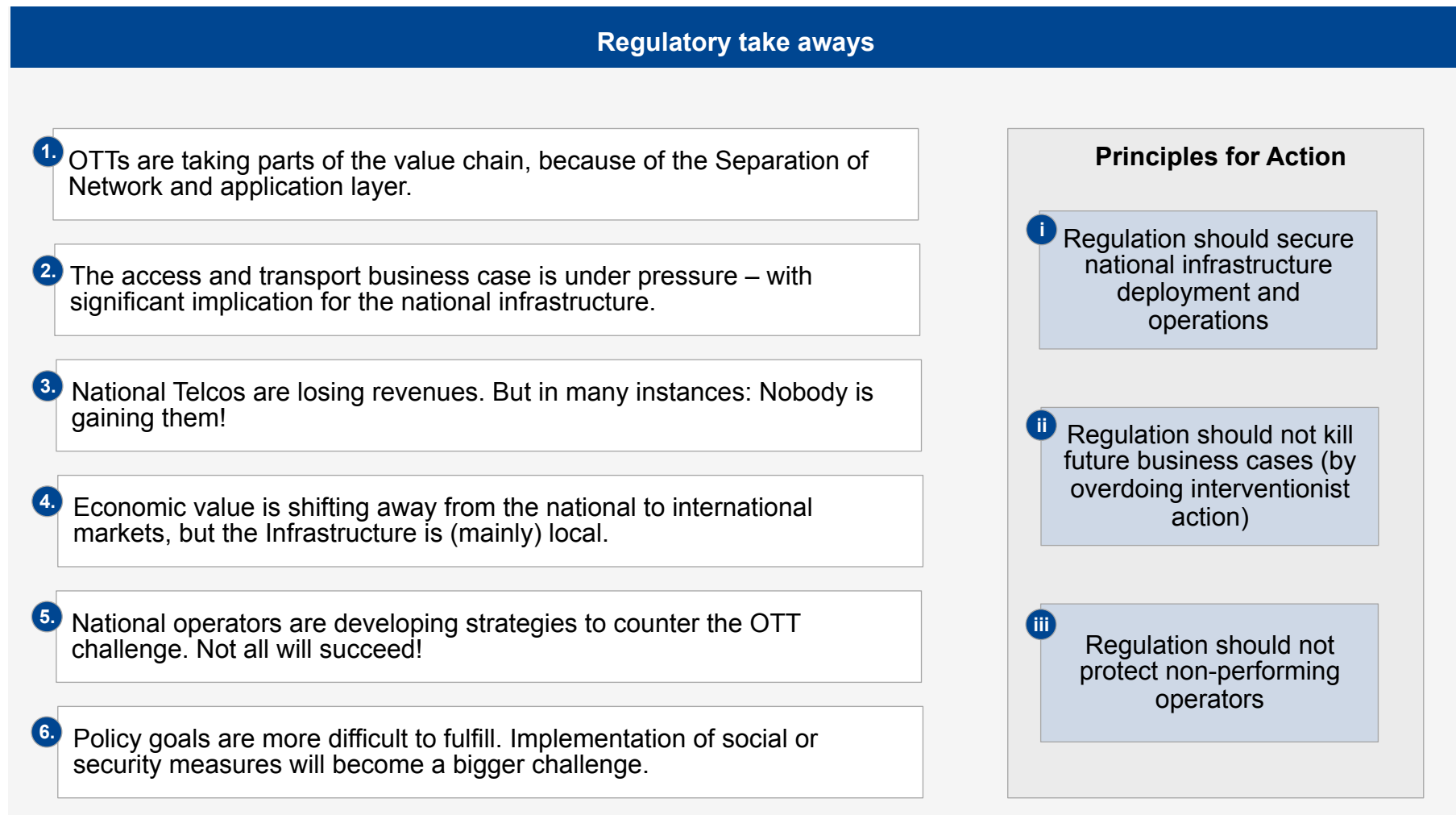
There is an apparent imbalance regarding market and market entry conditions between licensed operators and OTT players. A new regulatory balance is not yet in sight.

The (un-)level playing field			Comparison of market conditions <ul style="list-style-type: none"> ■ Network operator's business model is determined by regulatory requirements ■ OTT Players are usually free of such limitations ■ Current market setups have not yet adapted to the new competitive situation <div>  <ul style="list-style-type: none"> ■ Competition is dysfunctional ■ Regulators punish network operators that invest in local infrastructure, are an important source for local employment and are local tax payers </div>
Regulation	Licensed network operator	OTT player	
Licensing	■ Subject to license and license fee	■ No license required	
Quality of Service	■ SLAs included in the license	■ No quality requirements	
Interconnection	■ Interconnection mandated	■ No interconnect requirements	
Universal Service	■ Usually subject to universal service obligation	■ Not subject to universal service regime	
Consumer protection	■ Subject to (enforceable) consumer protection policy	■ No or little enforcement power	
Legal interception	■ Usually license condition	■ Country dependent	
Taxation	■ Subject to national tax regime	■ Service dependent	

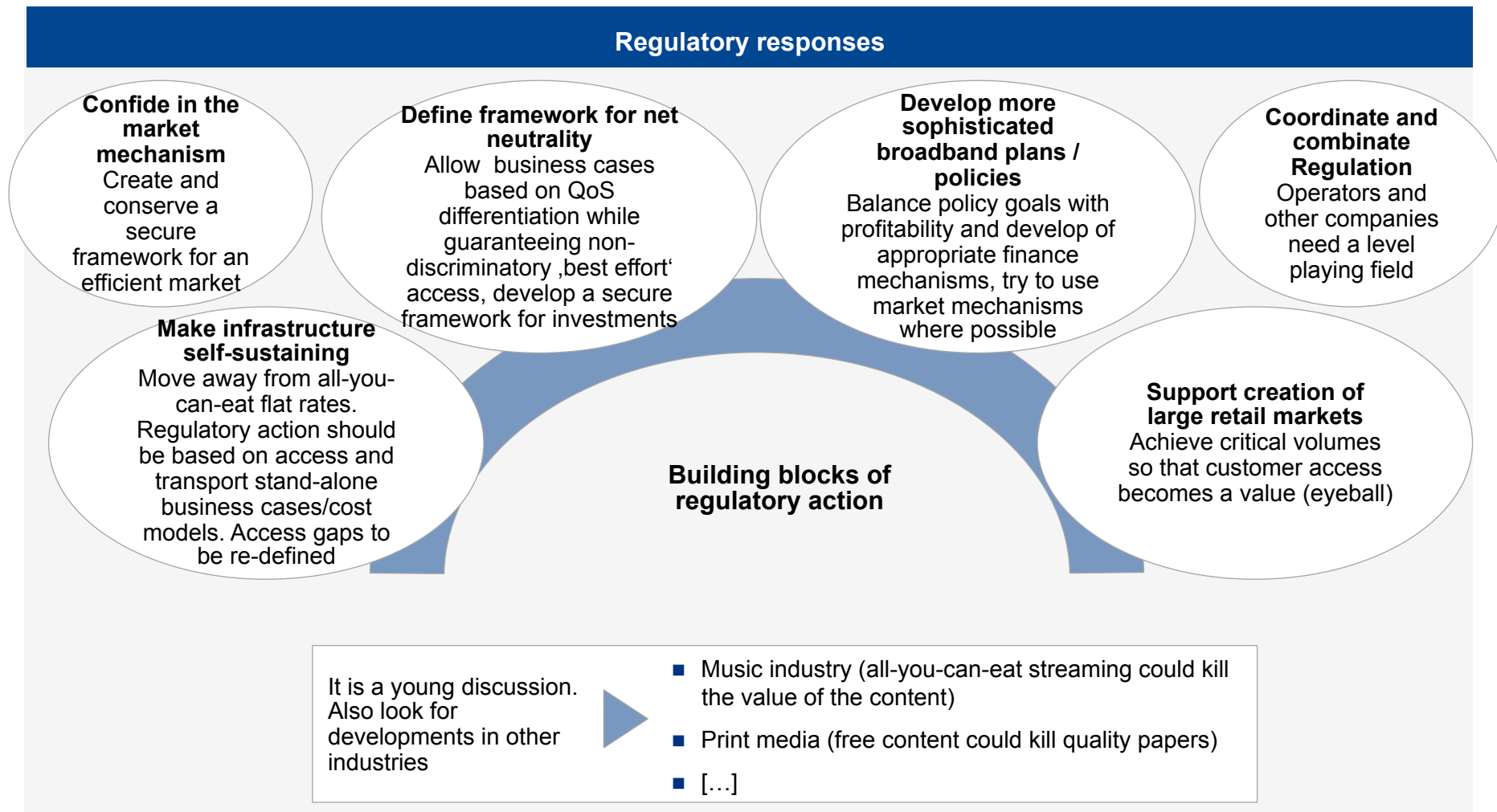
Internet is leading to the convergence not only of services and business areas, but also of regulations and laws. The coordination of previously separate bodies is vital.



There are six take aways for regulators. A framework for future action should be based on three principles.



Regulators have to discover new grounds. There are hardly benchmarks or best practices available. Some ideas have started to emerge.

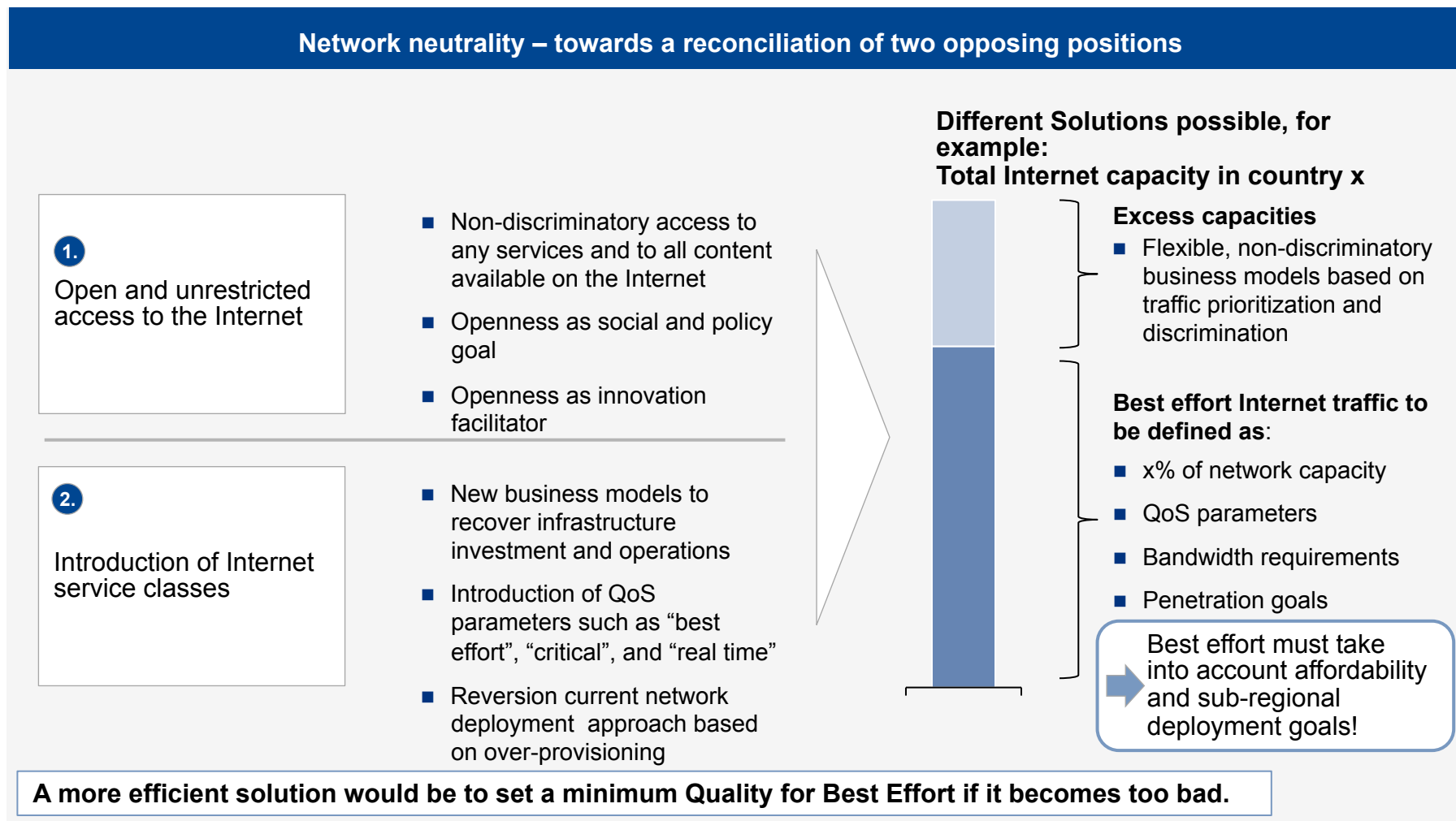


Various solutions can be thought of and be partly implemented simultaneously. This is not a pure wholesale but also a retail topic.

Precondition		Assessment
<ul style="list-style-type: none"> ■ Tangible difference for end-customer between service classes 	Quality Traffic Differentiation of traffic between quality classes	<ul style="list-style-type: none"> ■ Maybe difficult to make best-effort traffic so slow that customers will feel difference (but for bandwidth-hungry and quality-sensitive applications)
<ul style="list-style-type: none"> ■ Replacement of (almost) all-you-can-eat packages by small(er) bundles 	"0800 Model" Traffic from "partner networks" not counting towards internet packages	<ul style="list-style-type: none"> ■ Interesting model allowing for differentiation among content providers
<ul style="list-style-type: none"> ■ Data NOT included in access fee, only line ■ Regulatory approval 	Termination fee for data As for voice, charging a fee for terminating data to end-users	<ul style="list-style-type: none"> ■ Could be true differentiator for content providers targeting customers with no data package
<ul style="list-style-type: none"> ■ No other caching within the network ■ Prioritized treatment of own CDN traffic and regulatory approval 	CDN Offer content delivery solution to content providers	<ul style="list-style-type: none"> ■ Good option also reducing backbone traffic
<ul style="list-style-type: none"> ■ Regulatory approval as not compliant with principle of net neutrality 	Priorization of own content / hosting customers Prioritize traffic from own content / hosting customers	<ul style="list-style-type: none"> ■ Provides a true USP to use local SP and ends dilemma that using a global SP with no access network

Options are not exclusive and provide opportunities for interesting retail offerings and partnerships with content providers

The network neutrality debate is characterized by two opposing positions. Regulators must go beyond the current either-or-approach, but combine the two positions.



A more efficient solution would be to set a minimum Quality for Best Effort if it becomes too bad.

Contact Sheet



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