

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

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1. Detecon – Who we are?
2. OTT – The Telco Challenge
3. Regulatory Take Away

Partner and Head of Delivery Detecon Asia Pacific: Dr. Werner Knoben



Dr. Werner Knoben
Partner

Area of studies

- PhD in Mathematics: RWTH Aachen University, Aachen

Professional Experience

- T-Com / Deutsche Telecom / Detecon – Partner: Bidding and Auction Strategies; War gaming; Regulatory strategies; Due Diligence; Scenario Analysis

Key Qualifications

- Regulatory and wholesale strategy, market liberalization, competition law, regulatory costing and accounting separation
- Auction Design, Auction Strategies, Game Theory, War gaming, Communication Strategy, Bid Strategy
- Consumer and B2B strategy, Business Cases, Scenario Analysis

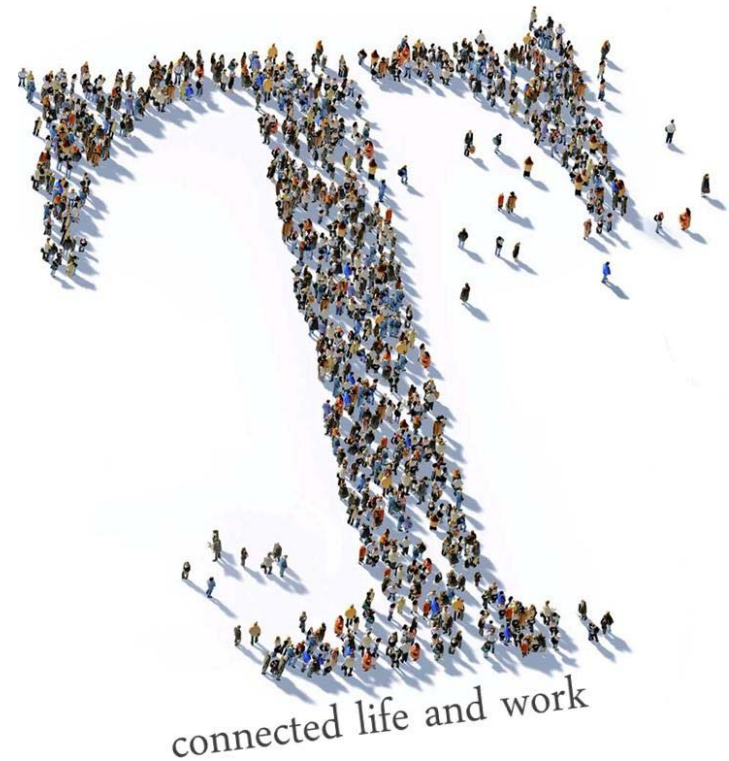
Selected Project Experience

- TRA Oman: Setup of a 4G spectrum auction
- NCC Nigeria: Setup of SMS and Data Interconnection Regulation
- NBTC Thailand: Development of an Accounting Separation Framework
- SingTel, Singapore: Auction and bid strategy and 4G license valuation
- TMMK/MKT, Macedonia: Regulatory Costing
- Advisor for Deutsche Telekom subsidiaries in Croatia, Hungary and Slovakia for regulatory strategies

We are part of Deutsche Telekom Group, the number one ICT provider in Europe. Our goal is to leverage the strengths of the group in international markets.

Key Facts Deutsche Telekom Group

- USD 75 billion net revenue
- 239,000 FTE employees
- 1,500 headcount in group innovation and partnerships
- 50.5 million fixed network lines
- 123 million mobile customers
- Number one ICT provider in Europe
- Number one cloud provider outside US
- Strong international footprint
- Group vision:
The customers' first choice for connected life and work



Telekom subsidiaries provide integrated products and services for business and residential



T-Mobile offers mobile solutions and is the key co-brand for OTT partnerships



T-Systems delivers ICT solutions for corporate customers and public sector organizations



Detecon is the management consulting unit of DT Group, serving to the group and other customers



Detecon's global presence ensures that clients get access to the knowledge and know-how of telecommunications experts worldwide.

Key Facts Detecon International GmbH

- Foundation:
1954 – Diebold
1977 – DETECON
- Restructuring:
2002 – Detecon International GmbH
- Shareholder:
T-Systems International GmbH
- Employees:
More than 1,000 worldwide
- Turnover 2012:
EUR 168 million
- Locations Germany:
Cologne (head office),
Dresden, Eschborn, Munich
- International Locations:
Abu Dhabi, Almaty, Ankara, Bangkok,
Beijing, Jakarta, Johannesburg,
Moscow, Riyadh, San Francisco,
Vienna, Zurich
- Webpage: www.detecon.com/en/

Worldwide Presence

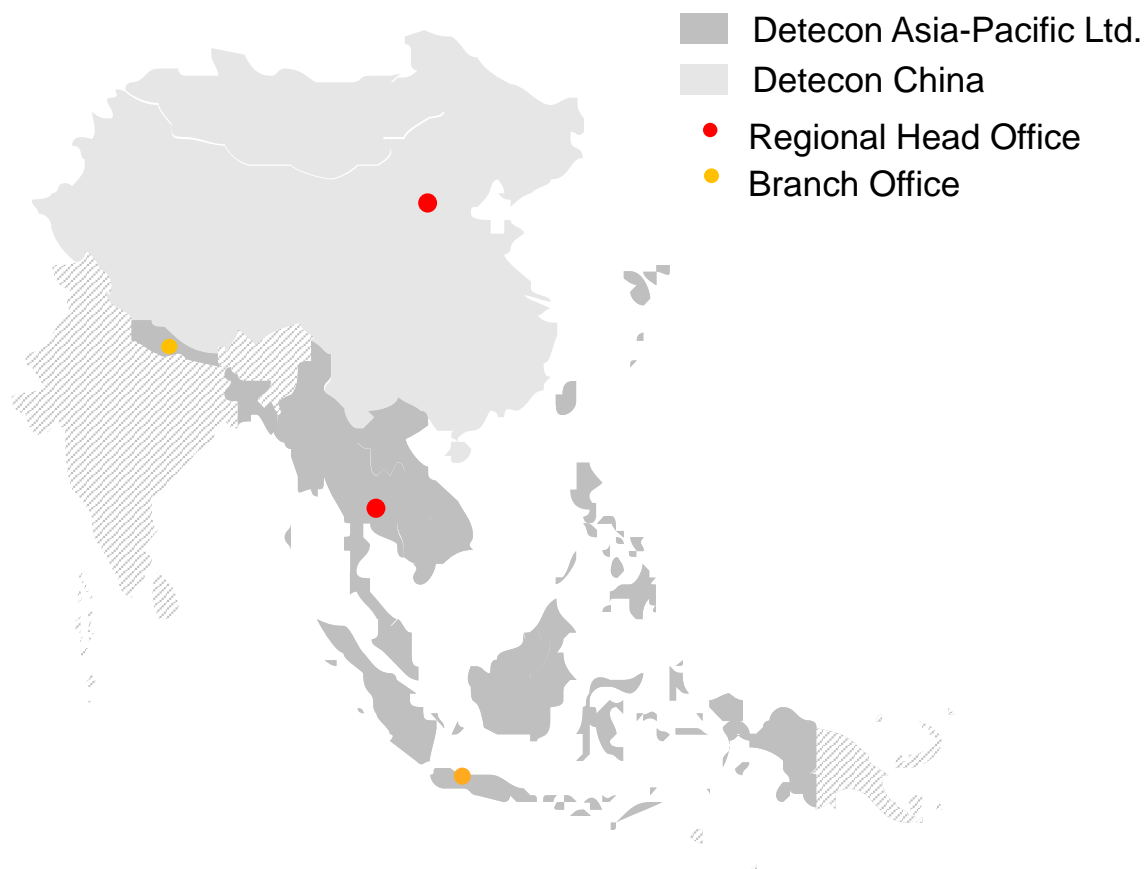


Detecon Asia-Pacific Ltd. is focusing on wider South East Asian markets. We can build on successful client relationships that have developed over 25 years.

Key Facts Detecon Asia-Pacific Ltd.

- Business Activities in Asia:
Since 1985
- Foundation of Detecon Asia-Pacific Ltd.:
2005
- Major Shareholder:
Detecon International GmbH (99%)
- Employees:
45
- Turnover 2012:
EUR 7 million
- Regional Headquarters:
Bangkok
- Regional Branch Offices:
Jakarta, Kathmandu
- Webpage:
www.detecon-asia-pacific.com

Presence in Asia



We combine a rich service portfolio with a unique approach to consulting and in-depth knowledge of the industry.

Strategy and Marketing	Technology Management	Organization and Processes
<ul style="list-style-type: none"> ■ Startup and Launch Support ■ Marketing and Sales Strategies ■ Wholesale Strategy and Implementation ■ Regulatory Advisory (Regulation Frameworks, Licensing, Lobbying) ■ Corporate Strategy ■ Corporate Finance ■ Cost Optimization ■ Business Planning ■ Business Development ■ Innovation Management ■ Big Data Strategy ■ Due Diligence and Investment Appraisal ■ Corporate Social Responsibility 	<ul style="list-style-type: none"> ■ Network Rollout / Launch Support ■ Technology Strategy ■ Outsourcing, Managed Services ■ Vendor Selection ■ Network Performance Management ■ Network Operations Efficiency ■ Tool Based Network Planning, Design and Rollout ■ ICT Strategy Organization ■ Technology Innovation Management ■ Green Technologies ■ ICT Transformation Management ■ Next Generation Data Centre ■ Enterprise Architecture Strategy and Management ■ Enterprise Service Management 	<ul style="list-style-type: none"> ■ Business Process Management (Business Process Audits, Business Process Engineering including eTOM and ITIL), Process Optimization ■ TOGAF Training and Certification ■ Enterprise Transformation Management ■ Reorganization and Merger Integration ■ Human Resources Management ■ Procurement and Supply Chain Management ■ Financial, Risk and Compliance Management

Program Management, Project Management, Interim Management



We support regulatory authorities and operators since 1977 with our deep regulatory and sector reform knowledge and experience worldwide.

Sector Reform and Legislation	Regulatory Policies / Procedures	New Regulatory Challenges
<p>Sector Reform Strategy</p> <ul style="list-style-type: none"> ■ Review of given market situation ■ Analysis and benchmarking of liberalization experience in other countries ■ Examination of political, legal and economic implications ■ Elaboration of guidelines and policies for sector reform <p>Communication and Competition Legislation</p> <ul style="list-style-type: none"> ■ Analysis of existing legal situation ■ Primary and secondary legislation ■ Regulations and calculation models (price squeeze, margin squeeze, predatory pricing) ■ Anti-competitive conduct (ex-ante and ex-post) 	<ul style="list-style-type: none"> ■ Regulatory market definition and analysis ■ Competition policy, SMP designation and remedies ■ Licensing and Authorization ■ Universal service policy ■ Tariff policy and tariff regulation ■ Interconnection and Access Regulation ■ Numbering ■ Dispute resolution ■ Market Monitoring and enforcement regulation ■ Consumer, Data and Privacy Protection ■ Frequency spectrum allocation and management ■ Standardization and type approval 	<ul style="list-style-type: none"> ■ Fix-mobile convergence regulation (e.g. pricing of mobile termination, national and international roaming, MNP, SMP evaluation, digital dividend, spectrum trading, re-farming, auctioning, ...) ■ Legal framework for eCommerce, eHealth and eGovernment ■ Media, IT, telecom convergence regulation (e.g. for content and applications, IPTV, PPV, ...) ■ Technical and economic regulation in an NGN environment, e.g. <ul style="list-style-type: none"> ■ VoIP regulation, ■ Net neutrality and QoS, ■ NGA industrial policies, ■ Next Generation Data Centre, ■ Network Resilience and QoS, ■ OTT

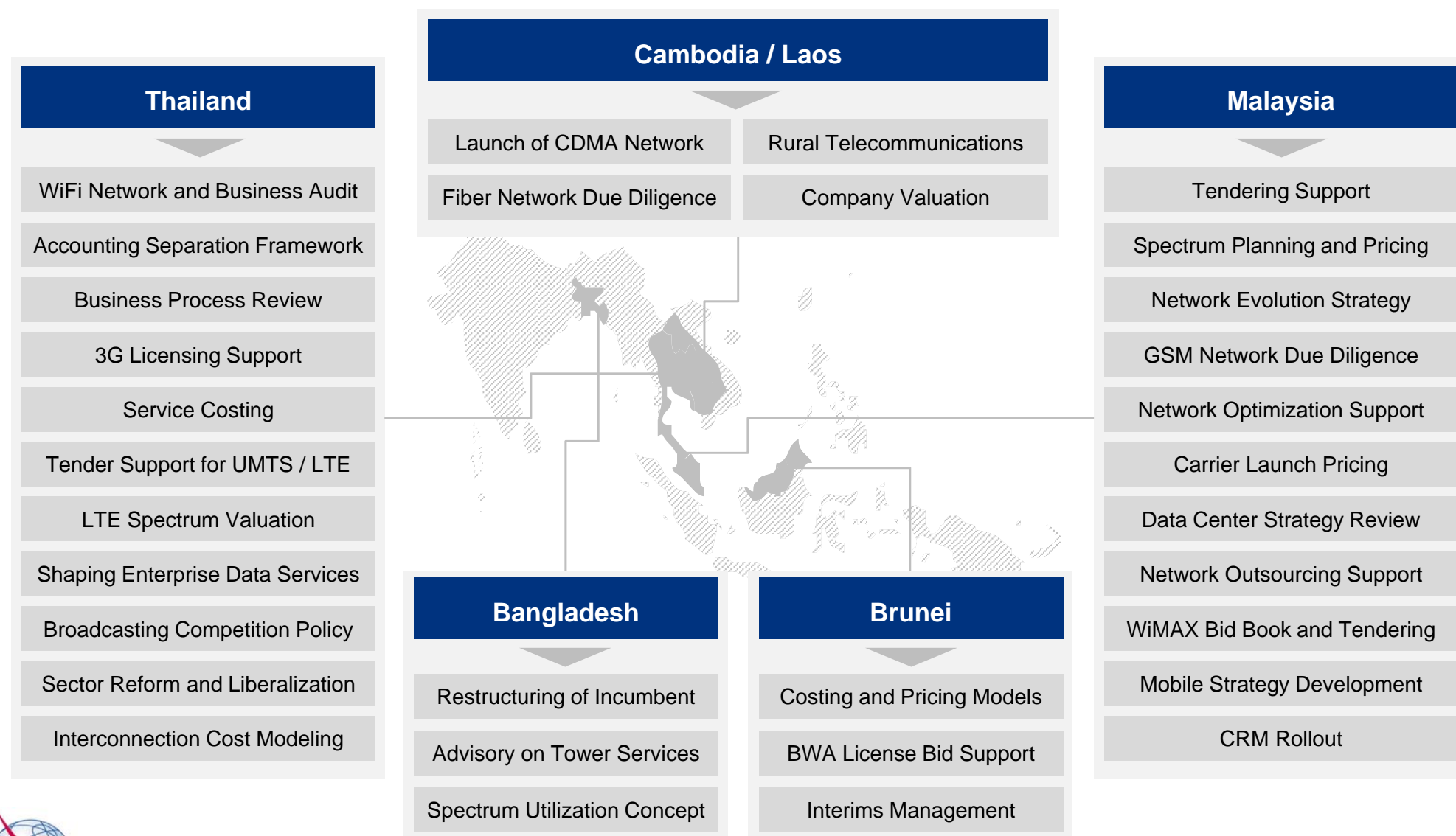
Regulatory Strategy and Telecommunication / Broadcast / Spectrum Master Plans



Our Asian client base includes donor institutions, regulatory bodies, industry suppliers and telecommunications carriers across the whole region.



A country view on completed projects proves that we are industry experts capable of dealing with strategic challenges as well as detailed implementation tasks.



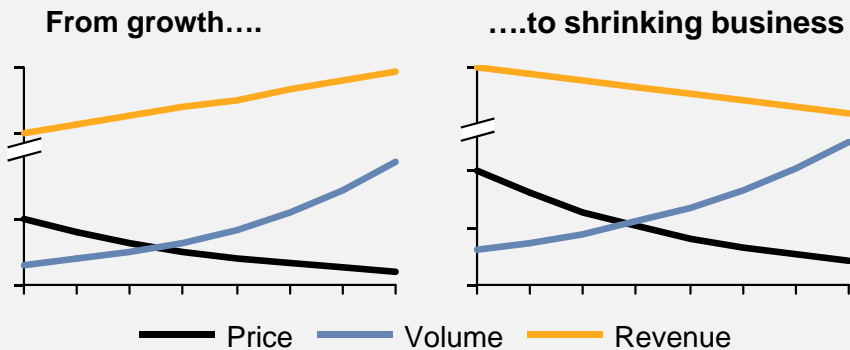
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Core Telco markets are shrinking. As a result the pure access and transport business case becomes negative – and broadband goals might fail to achieve the targets.

The Telco Challenge

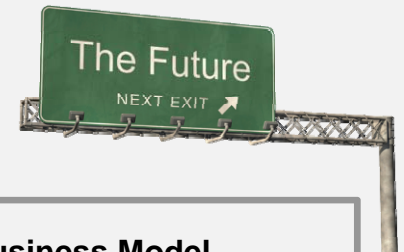


- **Revenues** from core Telco activities are **declining**.
- Operators have to look for **new sources** of income
- Some operators have adopted a strategy becoming an integrated **ICT solution provider**



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

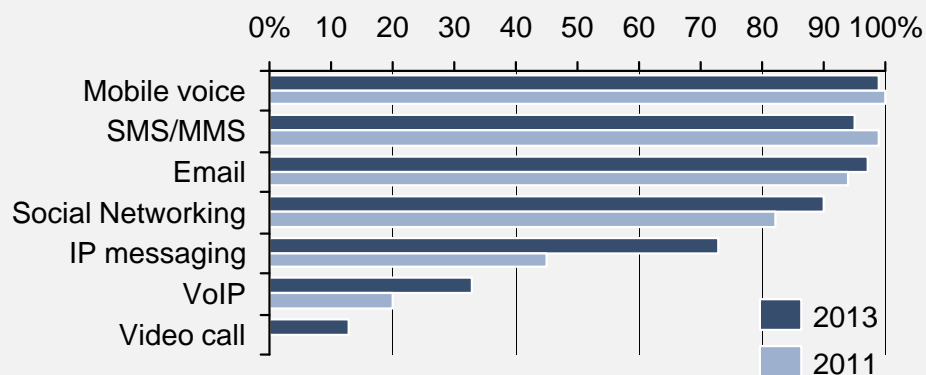
- The **economic value** of access and transport is **decreasing**
- The **pure broadband** business case is getting **unviable**
- Investment in and operations of ultra-fast and reliable infrastructure **will fail** to meet **policy goals**

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

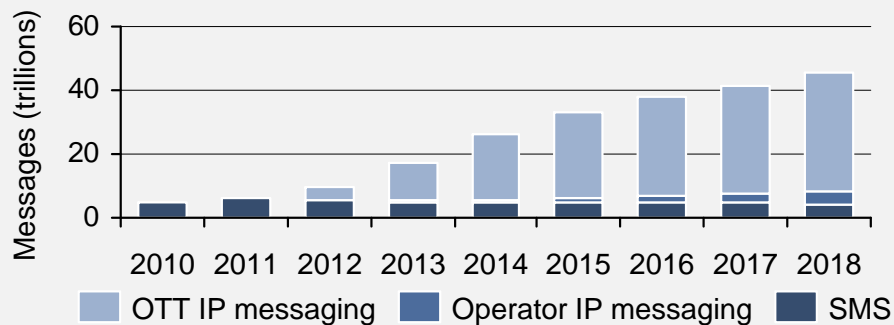
The Emergence of OTT

- OTT services penetrate the Internet
- In voice and messaging services OTT attack the traditional Telco business

OTT Communications on Mobile Handsets*



Mobile Messaging by Service Type*



Source: Analysys Mason

What does it mean for national Telco markets?

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

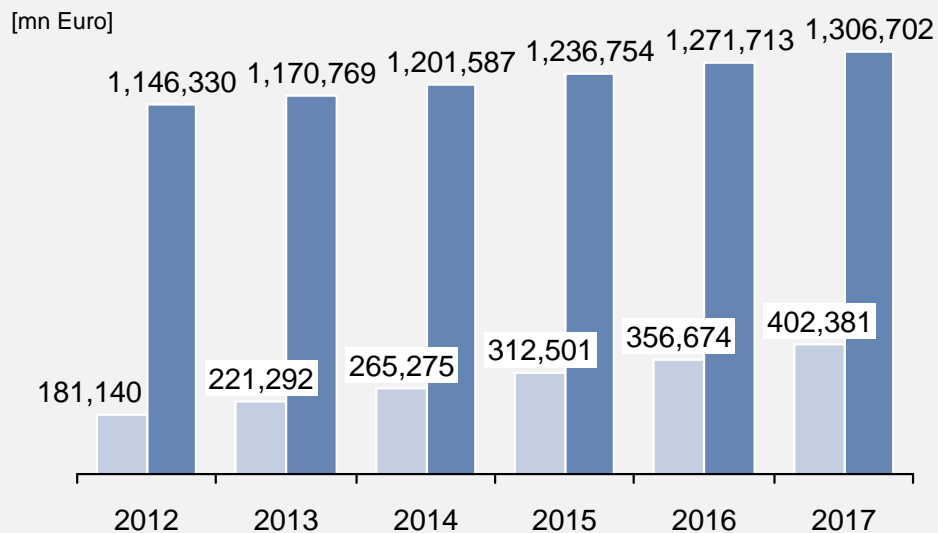
- **Uneven level of regulation**, e.g. QoS, interconnection, pricing, universal service, convergence etc.
- **OTT tax evasion** and **collection** problem

Policy and Social Goals of Regulation

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

OTT will take 1/4 of the total service market by 2014. Main drivers are cloud service offerings followed by e-commerce and search services.

Comparison of global Telco and OTT total market

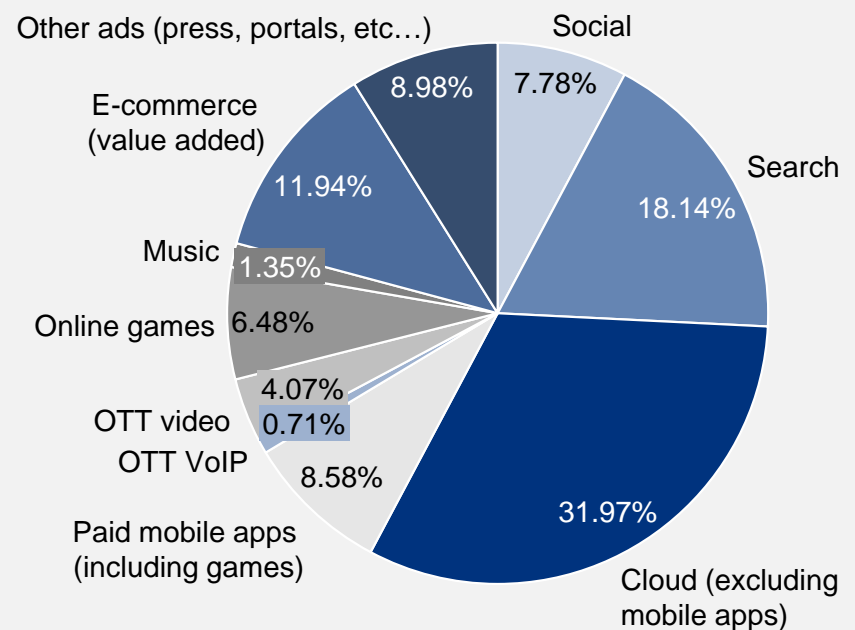


- In 2017 **Telco** will generate 1.3 trillion Euro, OTT 402 bn Euro
- OTT growth by a **CAGR** 2012-2017 of **17.3%**, Telco **2.6%**
- Biggest CAGR comes from **cloud services** (21.4%), followed by **OTT VoIP** (16%) and **social** (15.9%)

Source: *idate World Internet Service Markets 2014*




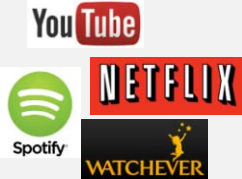

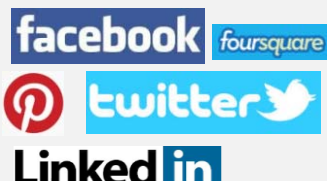
Breakdown of OTT service market 2017



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

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

The 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 	

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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

Regulation	Licensed Network Operators	OTT Players
Licensing	<ul style="list-style-type: none"> ■ Subject to license and license fee 	<ul style="list-style-type: none"> ■ No license required
Quality of Service	<ul style="list-style-type: none"> ■ SLAs included in the license 	<ul style="list-style-type: none"> ■ No quality requirements
Interconnection	<ul style="list-style-type: none"> ■ Interconnection mandated 	<ul style="list-style-type: none"> ■ No interconnect requirements
Universal Service	<ul style="list-style-type: none"> ■ Usually subject to universal service obligation 	<ul style="list-style-type: none"> ■ Not subject to universal service regime
Consumer protection	<ul style="list-style-type: none"> ■ Subject to (enforceable) consumer protection policy 	<ul style="list-style-type: none"> ■ No or little enforcement power
Legal interception	<ul style="list-style-type: none"> ■ Usually license condition 	<ul style="list-style-type: none"> ■ Country dependent
Taxation	<ul style="list-style-type: none"> ■ Subject to national tax regime 	<ul style="list-style-type: none"> ■ Service dependent

Comparison of market conditions

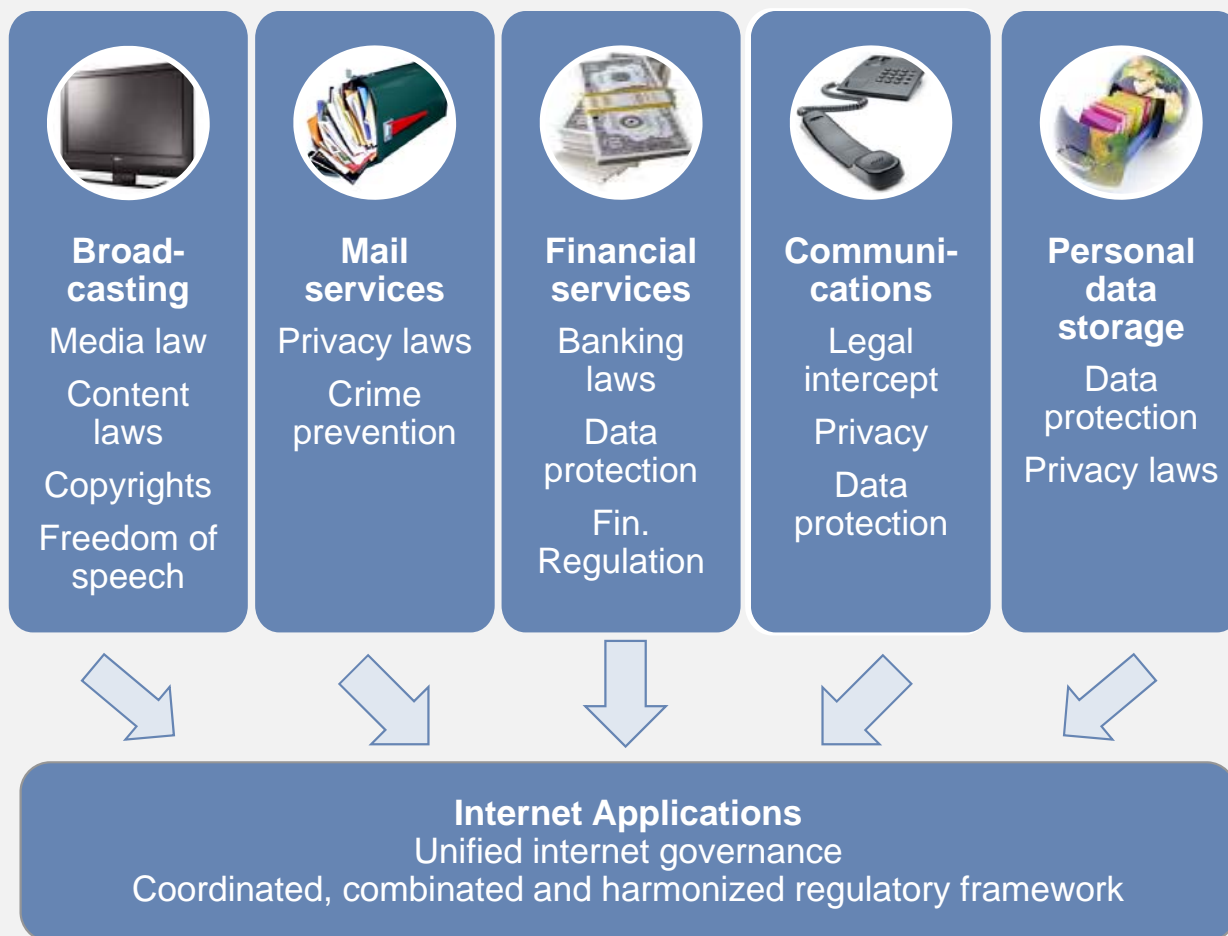
- Network operator's **business model** is determined by **regulatory requirements**
- **OTT Players** are usually **free** of such **limitations**
- Current market setups have **not yet adapted** to the new competitive situation



- Competition is **dysfunctional**
- Regulators **punish** network operators that invest in local **infrastructure**, are an important source for local **employment** and are local **tax payers**

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.

Organizational Convergence



At a minimum regulation of the following should be closely coordinated :

- Financial services
- Data privacy and protection regulation
- Broadcasting/publishing
- Communications/ICT.

Beyond this the integration of broadcasting, communications (and publishing?) regulatory bodies should be assessed and implemented if appropriate.

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

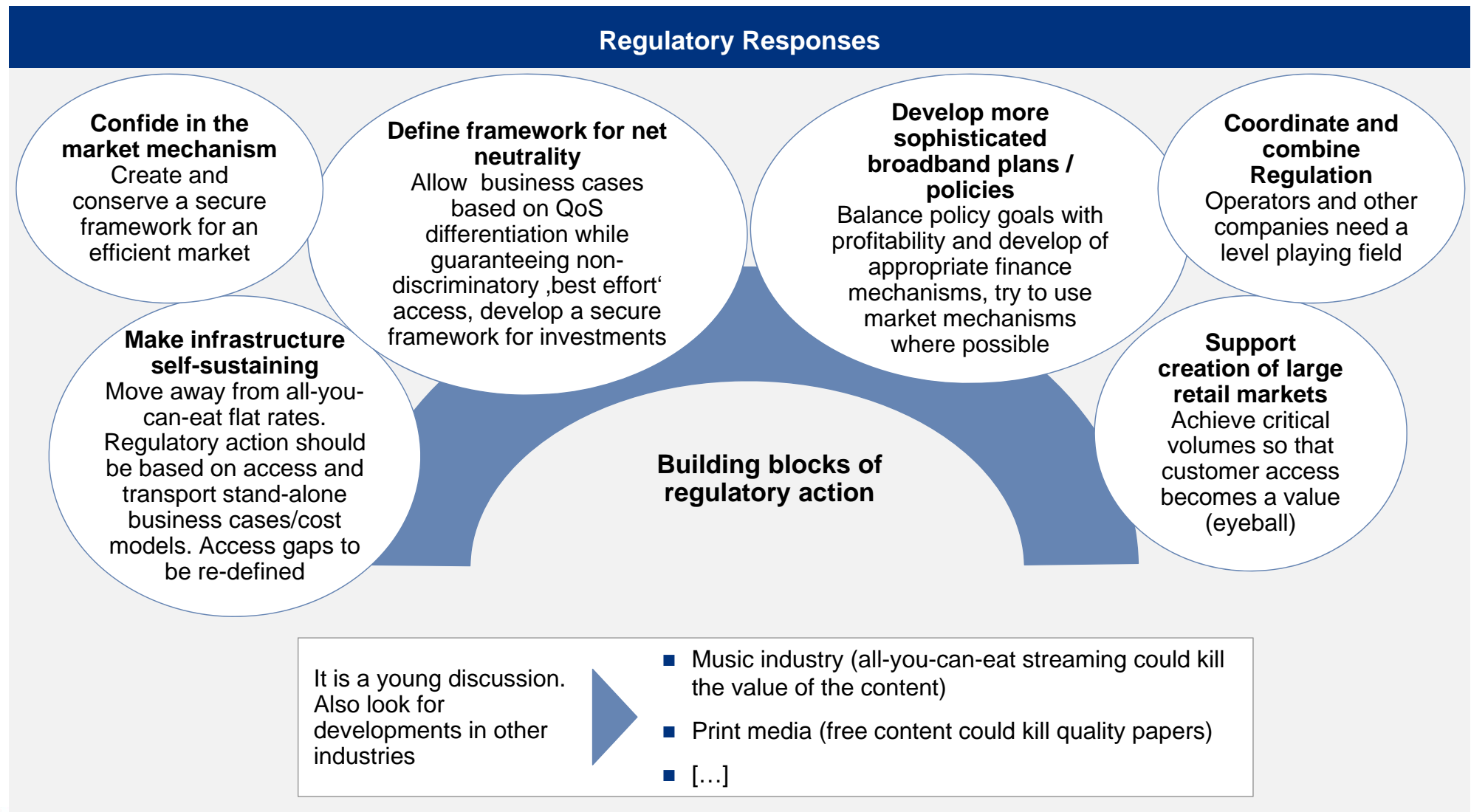
Regulatory Takeaways

1. OTTs are taking parts of the value chain, because of the Separation of Network and application layer.
2. The access and transport business case is under pressure – with significant implication for the national infrastructure.
3. National Telcos are losing revenues. But in many instances: Nobody is gaining them!
4. Economic value is shifting away from the national to international markets, but the Infrastructure is (mainly) local.
5. National operators are developing strategies to counter the OTT challenge. Not all will succeed!
6. Policy goals are more difficult to fulfill. Implementation of social or security measures will become a bigger challenge.

Principles for Action

- i Regulation should secure national infrastructure deployment and operations
- ii Regulation should not kill future business cases (by overdoing interventionist action)
- iii Regulation should not protect non-performing operators

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





Thanks for your attention

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