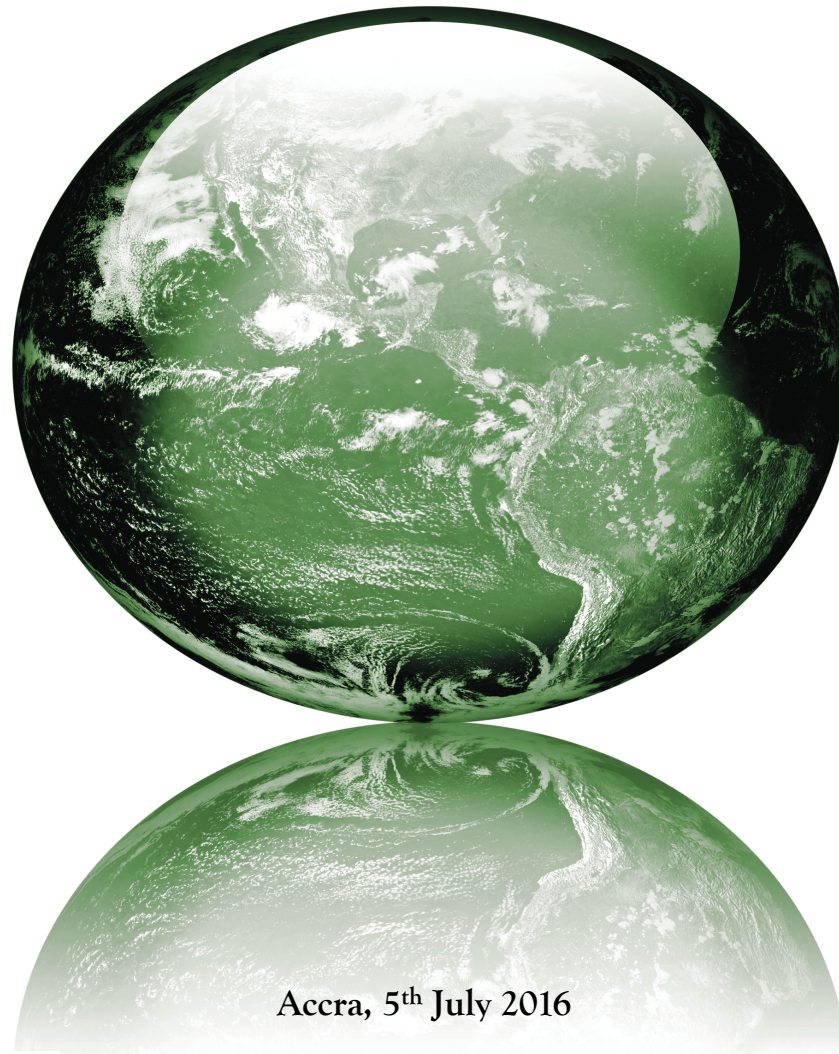


# LEGAL FRAMEWORK FOR INFRASTRUCTURE SHARING IN GHANA



Accra, 5<sup>th</sup> July 2016

## AGENDA

1. The Current Ghanaian legal and regulatory system
2. The challenges of Infrastructure sharing
3. *(This item is missing from the original image)*
4. Good Practices
5. Q & A

THE LEGAL FRAMEWORK IN  
GHANA



## INFRASTRUCTURE SHARING IN GHANA

Various legal and regulatory instruments concerning infrastructure sharing

Electronic Communications Act

Standard Infrastructure Communication License (Towers)

National Telecommunications Policy

National Communications Authority Act

National Communications Regulations

Guidelines for the deployment of communications towers

Guidelines for Mast Building and Sharing in Ghana



## INFRASTRUCTURE SHARING IN GHANA



Electronic Communications Act

The Electronic Communication Act of 2008 covers the overall regulation of electronic communications services and networks, including the right of access to facilities (i.e. passive infrastructure), rights of way and statutory way leaves



- Operators are required to provide access to other operators that request access to facilities or public rights of way or statutory wayleaves that it owns or controls on a timely basis;
- **Public utilities may also request the use of operator facilities**
- Negotiation to be carried out in a non-discriminatory and equitable basis and prices are to be determined on a cost-oriented basis
- NCA may intervene in resolving disputes or mediating negotiation and may regulate rates, terms and conditions for access



## INFRASTRUCTURE SHARING IN GHANA



Standard Infrastructure  
Communication License (Towers)

National Communications  
Regulations

The NCA publishes a standard license which authorises the establishment and maintenance of communications infrastructure for lease, rental or sale to communications service operators – generally standard procedures and provisions

- All operators obligated to facilitate access and to use an architecture design that facilitates interconnection and inter-operation
- Public utility providers, operators of public telecom and cable services to share space on their radio towers and public utility providers to grant access to operators regarding any pole, duct, conduit or right of way owned or controlled by them



## INFRASTRUCTURE SHARING IN GHANA



Guidelines for the deployment of communications towers

Published in the context of a collaboration between an Industry Technical Committee headed by the NCA, aimed at collaborating with relevant authorities and assemblies, which recommended:

1. Institutionalising a **one-stop-shop mechanism** with defined:
  - Application and approval procedures;
  - Appeals process;
  - Harmonised fees structure;
  - Monitoring and enforcement
2. **Promotion of public awareness** and education; and
3. **Encouraging co-location** to reduce the proliferation of towers

Construction of towers is subject to co-location requirements:

1. Administrative: timelines and documentation
2. Technical: set out by the competent authorities
3. Structural (landscape design, wind loading, insurance, expected lifetime)

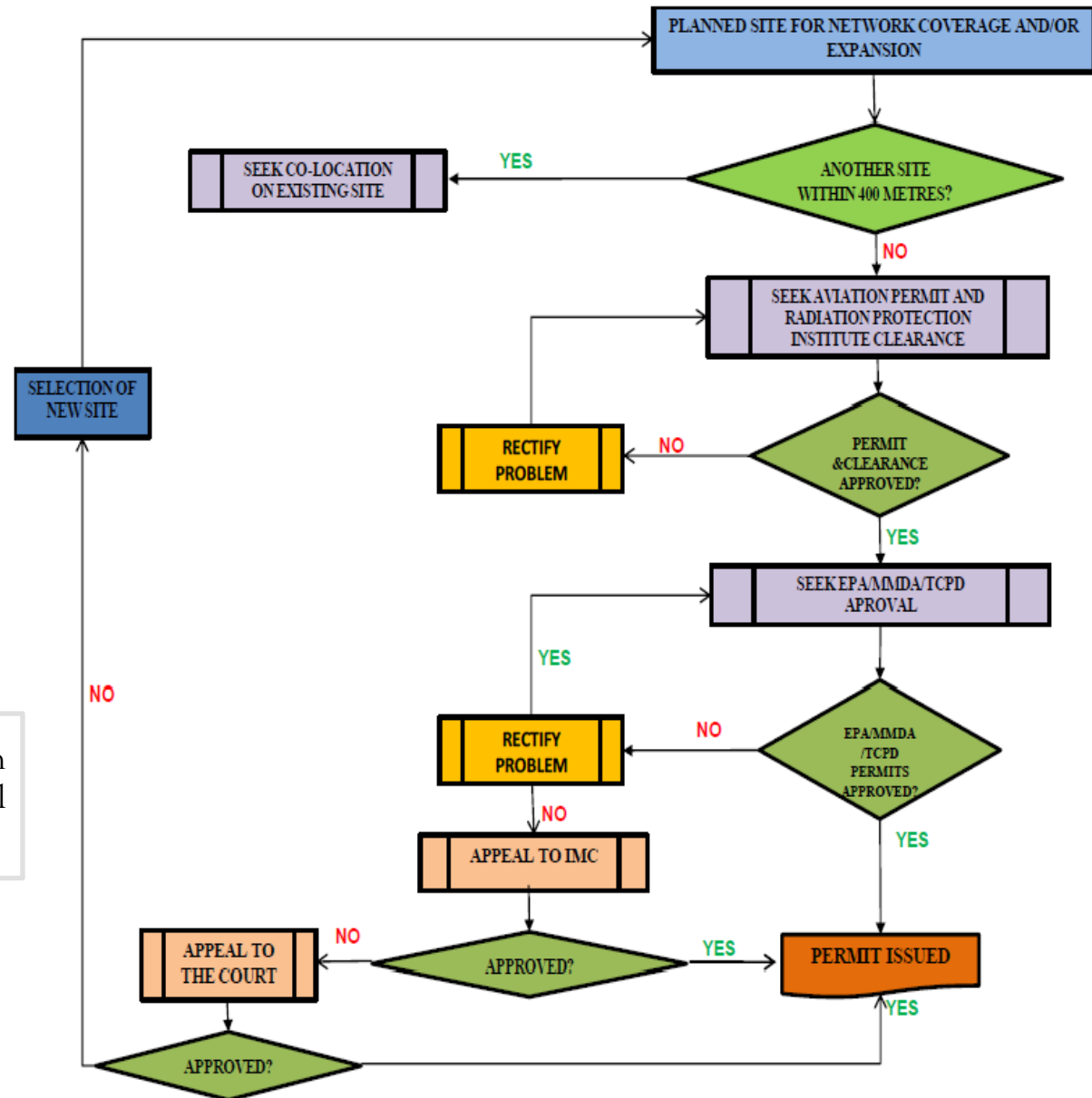


# INFRASTRUCTURE SHARING IN GHANA



Guidelines for the deployment of communications towers

Detailed procedures involve rules on application, dispute resolution, judicial appeals and problem rectification







## INFRASTRUCTURE SHARING IN GHANA



[National Communications Policy](#)

- Access to public rights-of-way, towers, telephone poles, underground conduits, international cable landing stations, and other physical support structures should, as much as possible, be shared among operators
- The NCA may:
  - Intervene in negotiations of terms and conditions, including cost allocation, for such shared facilities
  - Ensure that operators have reasonable and timely access to necessary public rights of way, subject to appropriate local safeguards and operator liability for costs and damage
  - Establish requirements to allow competing operators to co-locate their equipment on each others' premises



## INFRASTRUCTURE SHARING IN GHANA

3 major towercos active in Ghana:

- **Helios Towers Africa** setup a joint venture towerco with Millicom Tigo as minority partners, to which 750 towers were transferred (2010)
- **Eaton Towers** closed their deal with Vodafone Ghana, also for 750 towers (recently adding Airtel's Ghanaian towers to these 750)
- **American Tower** followed by setting up a joint venture with MTN, to which 1,876 towers were transferred



### THE PRACTICAL ASPECT- TOWERCOS IN GHANA

Estimates indicate that, while in 2013 17% of Africa's 150,000 towers were owned or operated by towercos, this number is expected to reach 50% by the end of 2015 (<https://insidetowers.com/towerexchange-meetup-africa>).

Eaton Towers, a pan-African tower company, entered sale and lease back agreements with Orange and Warid in Uganda; outsourcing of operations agreements with Orange and Telkom in Kenya; and with Vodafone in Ghana. Besides the maintenance of existing sites the deals also involve the construction of new towers, expanding operator's coverage while reducing cost. With about 2,400 towers, Eaton Tower's is currently the fourth largest tower company in Africa.



■ Countries with operations by tower companies

THE CHALLENGES OF  
INFRASTRUCTURE SHARING IN  
GHANA



## THE CHALLENGES

Operational challenges may vary depending on the type of operator and sharing model...

Operating Model	Challenges facing Incumbent	Challenges facing New Entrant
Selective Tower Sharing	<ul style="list-style-type: none"> <li>• Risk of competitive counteraction</li> <li>• Erosion of competitive differentiation</li> <li>• Operational coordination</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
Sharing Separated Tower Assets	<ul style="list-style-type: none"> <li>• EBITDA dilution</li> <li>• Regulatory risks</li> <li>• Identification of prospective tenants</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
Fully Fledged Sharing Through Joint Ventures	<ul style="list-style-type: none"> <li>• Loss of strategic control and flexibility</li> <li>• Exit agreements</li> <li>• Reduced control</li> <li>• Regulatory risks</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of strategic control and flexibility</li> <li>• Stake valuation</li> <li>• Reduced control</li> <li>• Regulatory risks</li> </ul>
Outsourcing to Third-Party Providers	<ul style="list-style-type: none"> <li>• Loss of strategic and operational flexibility</li> <li>• Reduced control and lack of equity participation</li> </ul>	<ul style="list-style-type: none"> <li>• Confidentiality</li> <li>• Long lock-in periods</li> <li>• Reduced control and lack of equity participation</li> </ul>

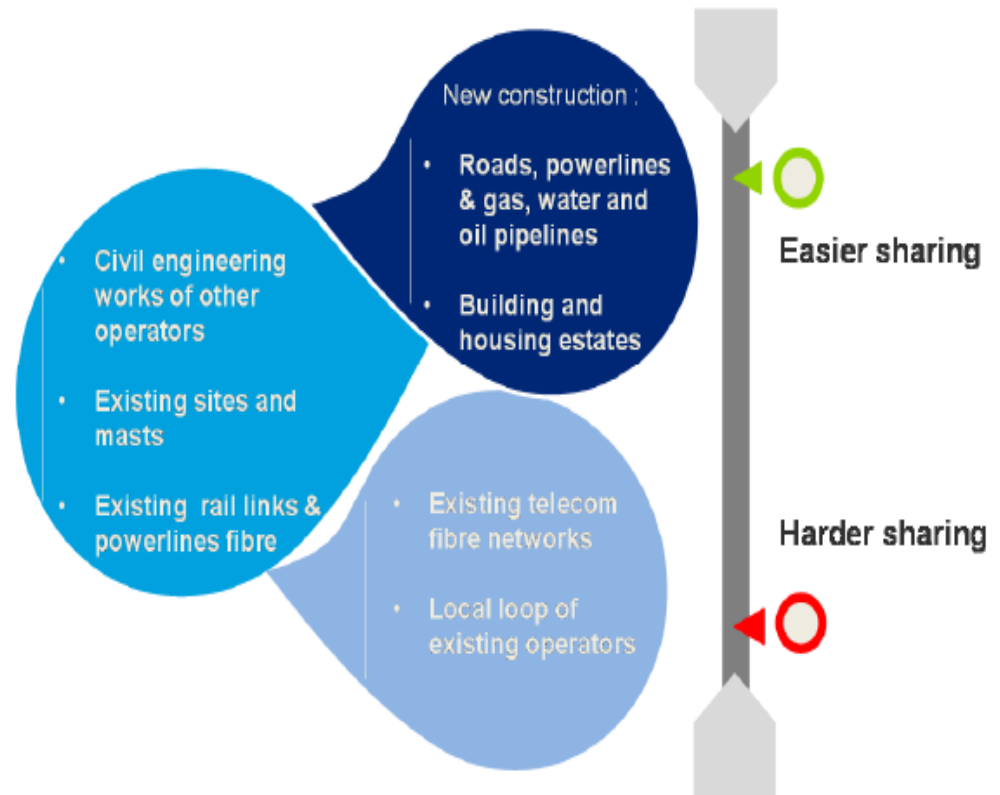
# THE CHALLENGES

And on the type of infrastructure at stake

## Scope of Infrastructure sharing



## Ease of Infrastructure sharing



## THE CHALLENGES

What to regulate?

(Dis)incentive to innovation

Adequacy of infrastructures

Legal or regulatory Bottleneck

Commercial conditions regulation

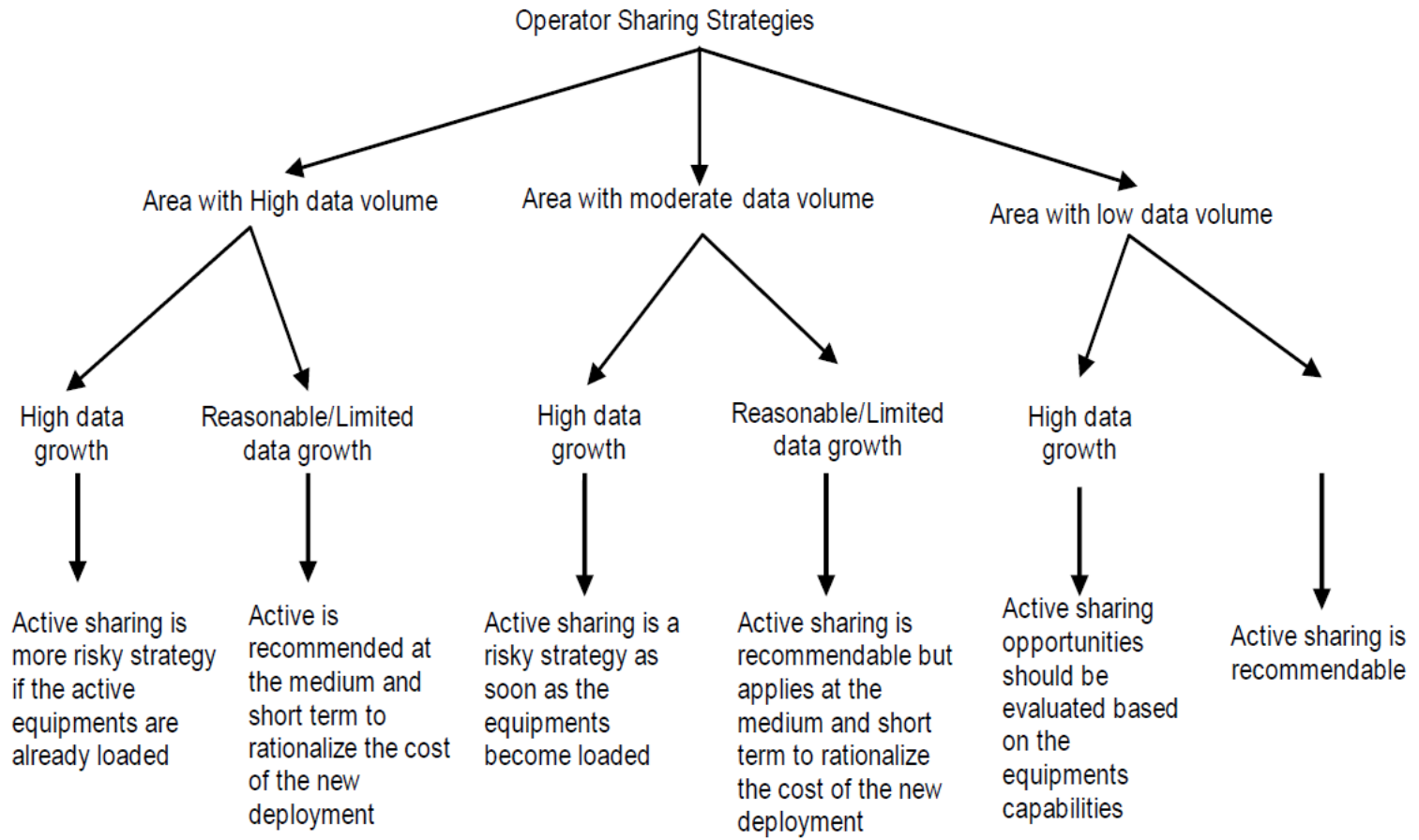
Coordination between sectors

Spectrum Trading



# HOW TO HANDLE THE CHALLENGES

What to regulate?



## HOW TO HANDLE THE CHALLENGES

What to regulate?

### ACTIVE INFRASTRUCTURE



Ideal for mature markets

Good for rural/remote areas (last mile coverage)



More complex and invasive model

Not ideal for emerging markets

Possible loss of QoS in equipment connection

Not adequate when network is saturated

### PASSIVE INFRASTRUCTURE



More simple

Less invasive

Better fit for emerging economies



Requires very active regulator

Requires cooperation between sectors

Passive infrastructure sharing may be more adequate, although regulation of principles applicable to active infrastructure sharing may be considered



## HOW TO HANDLE THE CHALLENGES

### What to regulate?

#### MANDATORY SHARING

##### Advantages

- Reduction in entry costs for new entrants
- Possible increase in investment on technology

##### Disadvantages

- No incentive to investment in quality infrastructure (can be mitigated with regulator empowerment)

#### OPTIONAL SHARING

##### Advantages

- May be a more natural model
- May encourage development of quality infrastructure

##### Disadvantages

- Increased entry costs for new operators
- Does not reduce disparities in non-competitive markets

Any infrastructure sharing obligation should include sufficient margin for reasonable negotiation by the parties in accordance with the market criteria and conditions

## HOW TO HANDLE THE CHALLENGES

### (Dis)incentive to innovation

- Mandatory obligation for operators to ensure that new infrastructures are technically fit to hold network elements and for sharing (to be evaluated on a case by case basis)
- Financial incentives:
  - Reduction of charges for rights of way and regulatory fee exemption
  - Fee exemptions/reductions for operators that comply and exceed technical standards to be set out by the regulator
- Issuance of licences/renovation of licences subject to assuming demanding infrastructure sharing obligations

Infrastructure sharing obligations as a natural consequence of beginning of activity as an electronic communications service provider

## HOW TO HANDLE THE CHALLENGES

### Adequacy of infrastructures

- Coordination with public works sector, so as to ensure that public works in network sectors include:
  - network elements (for example, ducts) and sharing capacity
  - Infrastructure sharing as a mandatory condition to the granting and use of public funds
- Mandatory inclusion of a sharing obligation for public investments (including universal access)
- Setting up independent bodies or sections responsible for coordinating the financial, operational, financial and technical coordination between the telecom sector and adjoining sectors, with the powers to impose penalties in the event of noncompliance

Incentives on public investment should be pondered as a mere addition to private investment, so as not to disincentivise operators to ensure efficient cost management practices

## HOW TO HANDLE THE CHALLENGES

### Legal or regulatory Bottleneck

POLICY & GUIDELINES

REGULATOR  
EMPOWERMENT

- Additional regulator powers to enforce sharing
- Set-up of quick and efficient licensing models and timelines - including operator-operator sharing and third party (towerco)
- Regulator-approved binding technical, operational requirements and contractual requirements
- Creation of Independent bodies or specific structures aimed at resolving sharing disputes between operators and managing infrastructure sharing issues
- Clear, swift and enforceable dispute resolution procedures - requires significant regulator know-how
- Noncompliance regime to include compulsory pecuniary sanctions

Essential - coordination between global policies (not just between telecom policies and guidelines, but also between telecom policies and policies applicable to other sectors (i.e. public utilities))

## HOW TO HANDLE THE CHALLENGES

### Commercial conditions regulation

#### Advantages

- Preferred option for new entrants- establishes level playing field
- Predictability in negotiation
- Facilitates reasonable negotiation (under a cost-orientation principle)

#### Disadvantages

- May discourage investment
- The concept of “cost” may be difficult to establish for certain equipment/technology
- Requires revision and monitorisation by the regulator, considering the nature of the telecom sector

Infrastructure sharing models must take into account the matter of pricing



Prices must not discourage sharing, but must also ensure that operators feel an incentive to build and rehabilitate infrastructures, in order to ensure technical adequacy and excellence of infrastructures

Prices should ensure commercially reasonable build-or-buy positions

## HOW TO HANDLE THE CHALLENGES

### Coordination between sectors

- Coordination between authorities and regulation applicable to telecom sectors and public utilities
- Promoting coordination between communication, railway, pipeline, electricity and road companies during construction and maintenance of infrastructure
- Possible creation of an authority specifically aimed at addressing the infrastructure sharing obligations applicable to the various stakeholders in the various sectors

Cooperation between the operators and authorities of all relevant sectors is essential for the adequate implementation of sharing obligations

## GOOD PRACTICES

### Spectrum Trading



Potential for unlocking the full range of new technologies and eliminating artificial scarcities of spectrum

Transfer of the right to use spectrum: allows purchaser to change the use to which the spectrum was initially put while maintaining the right to use

- Boosts transparency – reveals true opportunity cost for spectrum
- Allows companies to expand more quickly
- Easier for prospective new market entrants to acquire spectrum
- Provides incentives for incumbents to invest in new technology in order to ward off the threat of new entrants, which will boost market competition



Economic efficiency gains only realised if transaction costs are not too high and if no external effects intervene (, anti-competitive behaviour and interference)

“[...] Should a telecom operator decide to sell its spectrum to another operator, especially without the ‘knowledge’ of the regulator, it will not augur well for the sector, because such will create room for abuses. At the end of the day, the customer may suffer for it. It is important the regulator has an oversight on ‘why’ and ‘how’ the process is done”

Shola Taylor, Secretary-general of Commonwealth Telecommunications Organisation

## HOW TO HANDLE THE CHALLENGES

### Other mechanisms

Participation in international industry forums

Regular contacts between the regulator and the relevant stakeholders – promotion of workshops, conferences, public consultations, regular updates to regulator website

Internal structuring of regulator should ensure creation of bodies specifically aimed at addressing issues related to infrastructure sharing

Telecom regulator to be heard when relevant decisions are being made in what concerns fiscal reforms, changes to administrative and public law, as well as environmental and urban planning provisions

Public investment, when private funds are insufficient and/or there is no commercial, operational or technical incentive to investment in sharing (operators should not feel discouraged from investing)



## GOOD PRACTICES

## GOOD PRACTICES

### 1. SHARING-FRIENDLY ENVIRONMENT

- Establishing an **adequate regulatory environment** that favours competition (based not only on services, but also on infrastructure) and the entry of new operators, considering the advantages and disadvantages of possible business models
- Creating **incentives to competition and investment (regulatory fee exemptions, tax regimes)**, in order not to limit infrastructure sharing to certain operators or types of services



## GOOD PRACTICES

### 2. INNOVATIVE REGULATORY POLICIES AND STRATEGIES

**Reasonable Terms and Conditions** so that: (i) sharing obligations do not hinder the investment made in infrastructure/services; and (ii) commercial and non-commercial terms do not act as a barrier to sharing arrangements

**Pricing:** prices should ensure commercially reasonable build-or-buy positions

**Pre-approved agreement templates**

**Licensing:** licensing procedure for providers of passive infrastructure that do not compete in retail market (ex. TowerCos)

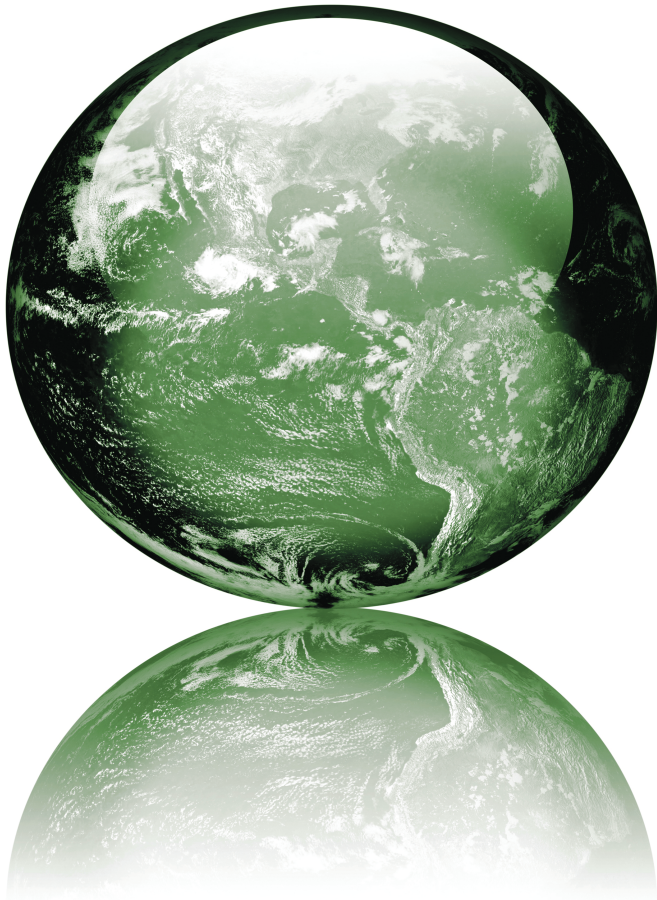
**One-stop-shop:** for coordination of installation and operation work, as well as connection between operators

**Transparency:** mandatory provision of information by operators on their websites

**Dispute Resolution:** intervention of regulator or other independent body, in the event that alternative mechanisms are not sufficient

**Universal access: creation of incentives** (such as regulatory exemptions) for infrastructure sharing, which allow for compliance with universal access goals

**Interaction with other sectors and market players:** incentivising sharing with players in other sectors (specifically utilities) benefiting the environment, financial health and urban planning



Q&A

# Thank you!



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