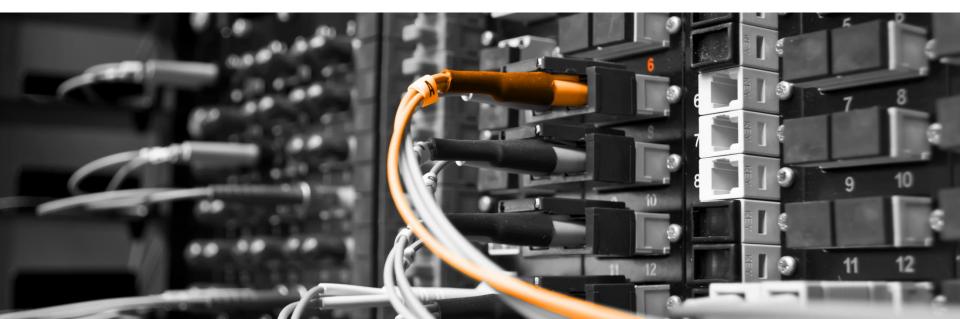


Implications of national fibre initiatives for regulatory policy

Erik Whitlock



1. The role of government policy in national fibre initiatives

- 2. Three key workstreams in regulatory policy
 - a. Striking the balance between ensuring sustainable investment and encouraging competition
 - b. Open access
 - c. Adjusting the regulatory model to the market structure model
- 3. Achieving connectivity in rural remote areas
- 4. Requirements for change



Typical areas for Government intervention

Demand Stimulation

- Eliminating barriers to take-up (e.g., ITA initiatives)
- Eliminating unnecessary restrictions on content services
- Price regulation

Enhancing competition

- Licensing
- Accounting separation; imputation tests
- Reference Access Offers (RAO)
- Prevention of anti-competitive practices

Lowering Cost

- Mandated sharing of civil works
- Coordination of construction and other municipal authorities
- Coordination of road and utility infrastructure projects

Securing return on investment

- Fiscal support (direct subsidy, lower taxes, PPP, take-or pay contracts)
- Basis of regulated pricing



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Traditional thrust of regulatory policy

Priority given to **promoting competition**, **eliminating exclusivity and reducing dominance**:

- ✓ Increasingly liberal licensing regime;
- Strengthening regulation of vertically integrated incumbent, e.g.,
 - ✓ Cost-based prices for interconnect and access, and
 - ✓ Separated accounts and imputation tests to prevent margin squeeze;
- ✓ Development of ex-post competition policy



Reviewing the balance: exclusivity and competition

NBN initiative requires reconsideration of the benefits of exclusivity.

- ✓ NBN gains the opportunity to establish a **foothold in the market**; and
- ✓ NBN can achieve **economic sustainability**.

In return, NBN, which is *not vertically integrated* providing *non-discriminatory access*, can create a more robust competitive model:

- Incumbent and new entrants placed on an equal competitive footing in the active and retail markets;
- Greater competition in downstream market as NBN is configured for multiple service providers;
- Relaxation of certain incumbent regulations, i.e., those safeguards designed to prevent abuse arising from vertical integration of passive infrastructure and other layers.



Reviewing the balance: pricing and demand stimulation

- ✓ Traditional approaches to setting cost not always appropriate:
 - EU's Draft Commission Recommendation on consistent nondiscrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment highlights scenarios in which access prices should not be regulated at cost; and
 - Different parts of the passive infrastructure may require different cost methodologies (given nature of assets and regulatory objectives)
- May require more creativity as to how to keep end-user prices affordable.



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- Publish Reference Access Offer (RAO) for access to ducts, dark fibre, etc.
- □ Agree Pricing
- **D** Ensure Access for multiple service providers
- Establish in-building cabling and between building infrastructure code specified in terms of standards and other access requirements
- Determine non-discriminatory access points (e.g., ODF, Telecom Room, Distribution Box)



Publish Reference Access Offer (RAO) for access to ducts, dark fibre, etc.

Standard requirements for dominant operators would apply (even if initially on a national basis NBN was non-dominant):

- **Provide access to** the public communications network operator's **facilities**, which cannot be unreasonably withheld;
- Negotiate in good faith on matters concerning access to facilities;
- Grant open access to technical interfaces, protocols or other key technologies indispensable for the interoperability of services;
- Provide specified services on a wholesale basis on a non-discriminatory basis for resale by third parties; and
- Neither withdraw nor impair access once already granted, except under unusal prespecified circumstances.



I Agree Pricing

As discussed above, the basis of prices may be subject to debate, but at a minimum, they must be

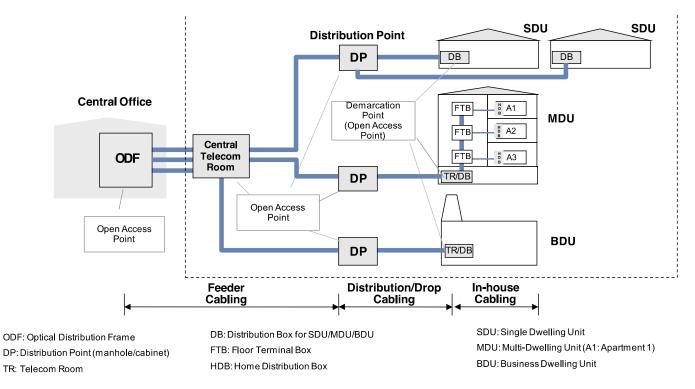
- Set at a reasonable level and structure,
- Non-discriminatory and transparent, and
- Consistent with end-user ability to pay.

Non-discriminatory access for multiple fiber providers

The key advantage of having a passive infrastructure provider is permitting robust competition on the active infrastructure and service level.



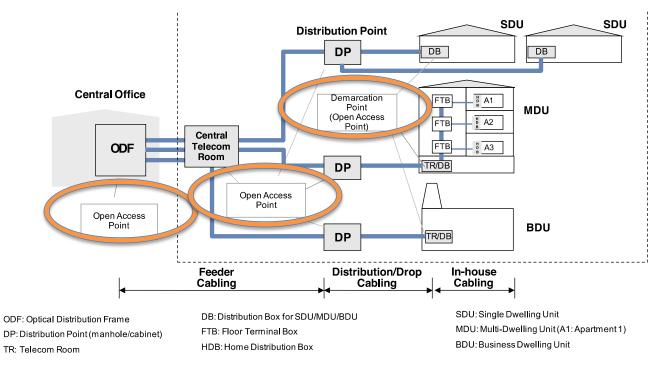
Establish in-building cabling and between building infrastructure code specified in terms of standards and other access requirements



Source: ictQatar, Open Access for Megaprojects Consultation, 2013



Non-discriminatory open access points (e.g., ODF, Telecom Room, Distribution Box)



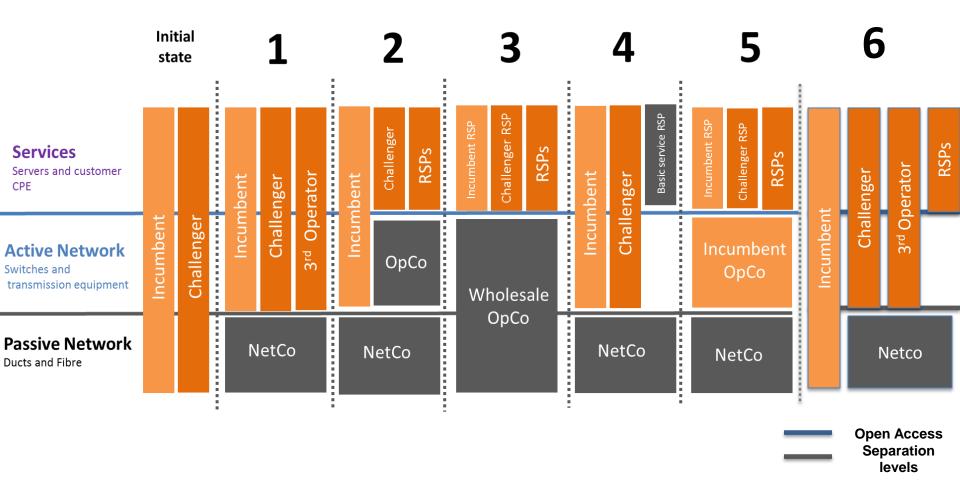
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Fitting regulatory regime to market structure model



Each variant requires a different mix of regulatory policies



Adjusting existing or planned regulatory regime

Licensing

- Does unified licensing make sense?
- How to capture desired exclusivity?

Dominance regime

- Review of market definitions, dominance and remedies
- Additional RAOs

Tools to facilitate roll-out

- Changing codes to regulation
- Coordination and process with other national, regional and local authorities

Reviewing regulatory finance

- Fiscal support
- Basis of pricing



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Role of satellite services

- Satellite is the **technology of "last resort"** for broadband.
- Ka-band satellite technology has lowered the cost of bandwidth, but still very high making it only suitable for relatively lowbandwidth and "latency resilient" applications.
- Yet satellite is a realistic alternative to getting **broadband to remote** and isolated communities quickly.
- Because of the relatively low-fixed costs, the business model is more straightforward and in little need of many of the special regulatory adjustments that would be necessary for the national fibre network.
- Competitive tender process can assist in determining the commercial and regulatory requirements of the deployment.



Regulatory best practice

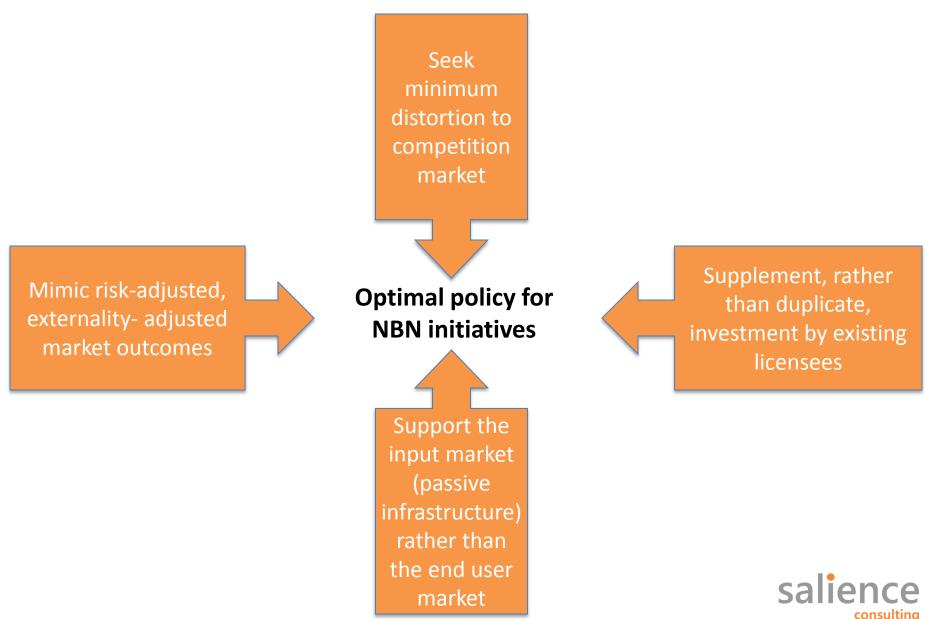
- Any limitations on the number of service providers for provision of satellite services or preference for domestic operators or burdensome authorization conditions for use of foreign satellite systems may adversely affect competition, investment in new infrastructure or reduction in service costs.
- Laws and regulations that concern provision of satellite based services and details of requirements for licensing and permits be readily available, i.e., transparency.
- While there may be no need for direct subsidy of the service provider, the **affordability issue remains**, requiring some sort of fiscal intervention.



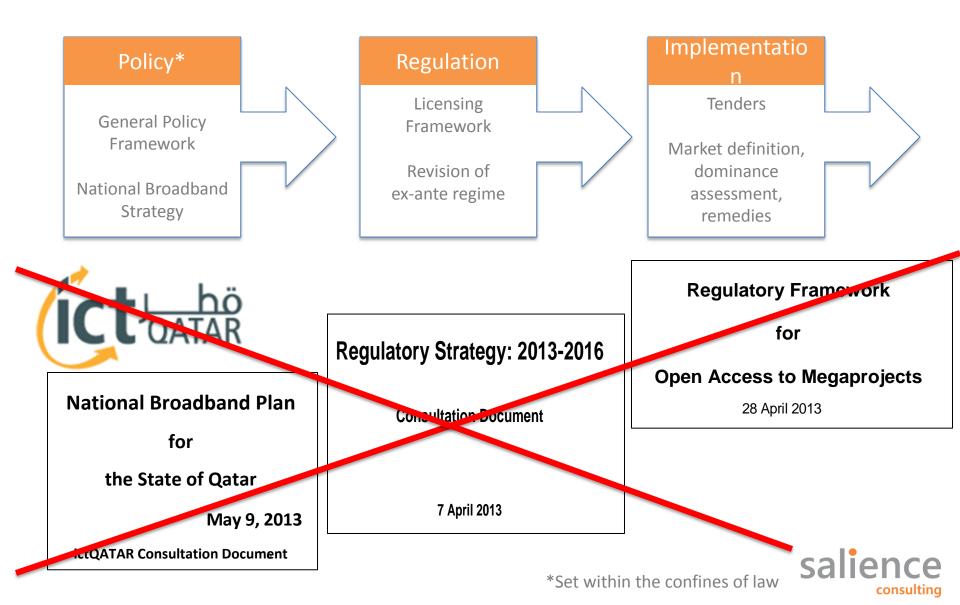
- 1. Context: the role of regulation national fibre initiatives
- 2. Balancing goals of ensuring sustainable investment and encourage competition
- 3. Open access issues
- 4. Adjusting regulatory model to market structure model
- 5. Achieving connectivity in rural remote areas
- 6. Requirements for change



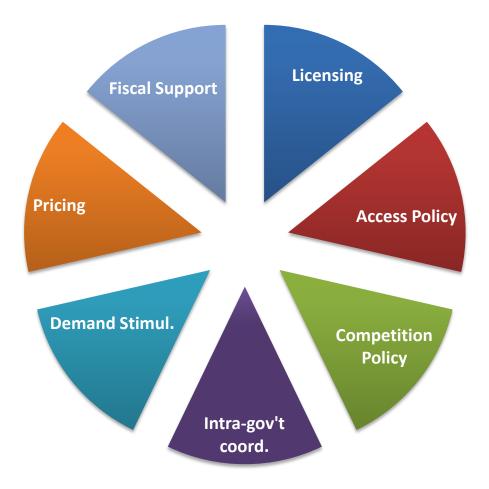
Requirement for change: Market informed intervention



Requirements for change: rational sequencing



Requirements for change: comprehensiveness





Salience consulting



