

New approach to regulation of fixed and mobile networks

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„Challenges of the Relevant Market Regulation
for Telecommunications Networks and Services“,
Bogota, 15 June 2012

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1. Why review *ex ante* regulation of fixed and mobile networks?
2. How adapt *ex ante* regulation of dominant operators?
3. Give symmetrical *ex ante* regulation greater emphasis?

A European perspective

1. Why review *ex ante* regulation of fixed and mobile networks?

Ex ante regulation must be adapted to multiple technological & commercial developments

NETWORKS

NGN
core networks

VDSL & fibre
access networks

DOCSIS 3 upgraded
cable networks

LTE
networks

Migration to NGN/NGA
networks

RETAIL SERVICES

Ultrafast Internet
access connections

New applications and
services (e.g. IPTV, OTT)

Partial convergence of
fixed & mobile services

Differentiation of
residential & business-
graded services

Widespread bundling
of services

WHOLESALE SERVICES

Unbundled access to
VDSL & fibre networks

Wholesale broadband
access to VDSL & fibre
networks

Ethernet based
dedicated capacity

IP
interconnection

Migration to NGN/NGA
wholesale services

Investment incentives

Competition

Access remedies

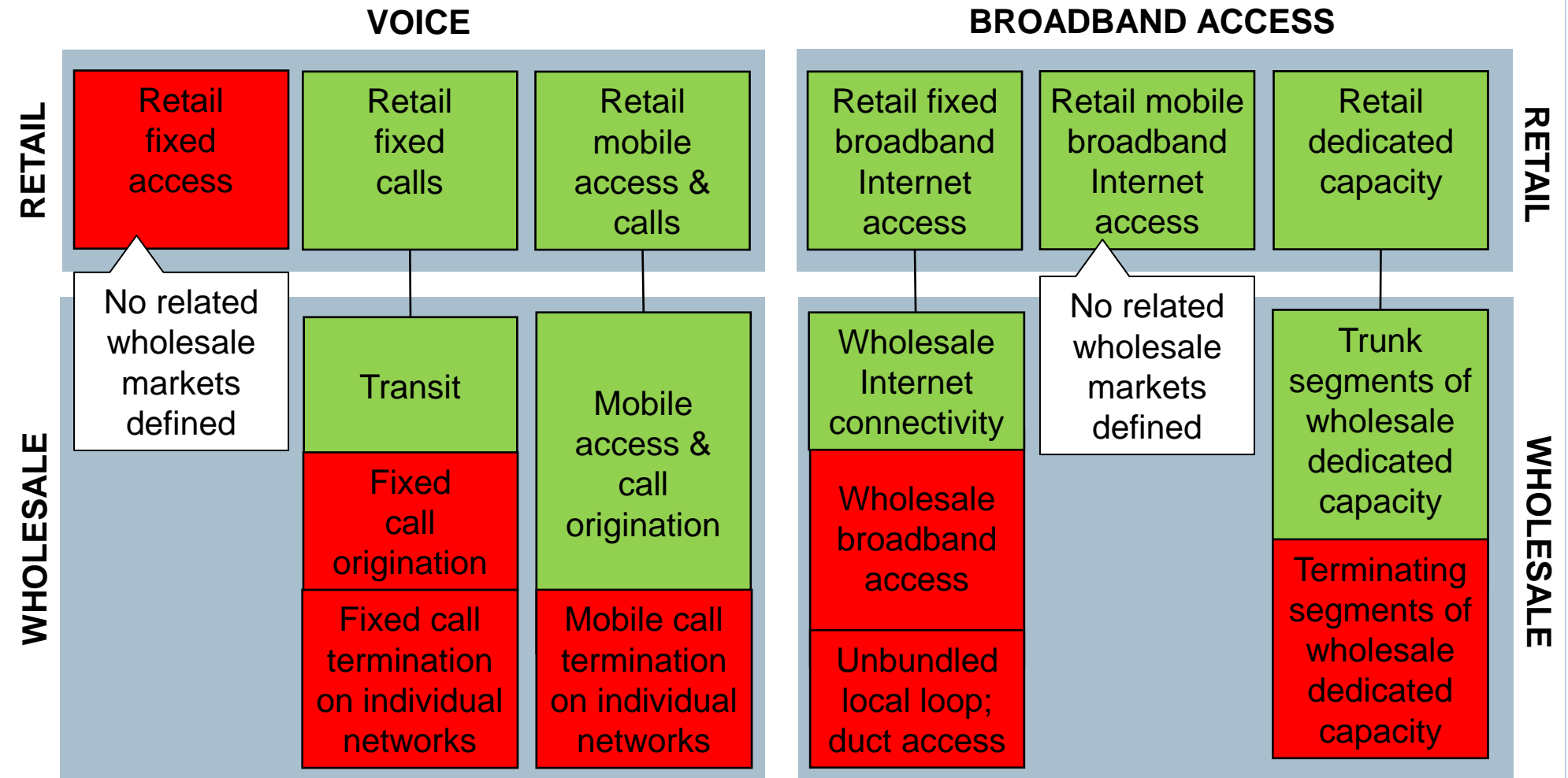
2. How adapt *ex ante* regulation of dominant operators?

Regulated markets/operators

Focus on, and principles of, *ex ante* regulation of dominant operators remain untouched

1. Targeted at competition problems related to dominance
2. Limited to electronic communications markets characterised by
 - Persistent barriers to entry
 - No tendency towards effective competition
 - *Ex post* application of competition law alone not sufficient
3. No regulation at retail level if wholesale regulation is enough

Current *ex ante* regulation of dominant operators concentrates on voice & broadband access



■ Regulated market = Market susceptible to *ex ante* regulation and characterised by SMP

■ Unregulated market

Ex ante regulation for voice can be reduced

1. New retail market boundaries for voice

- Fixed access & calls a bundle (voice)
- VoIP a substitute for voice over PSTN
- Mobile voice a partial substitute for fixed voice (residential customers)
- Differentiation of business from residential services

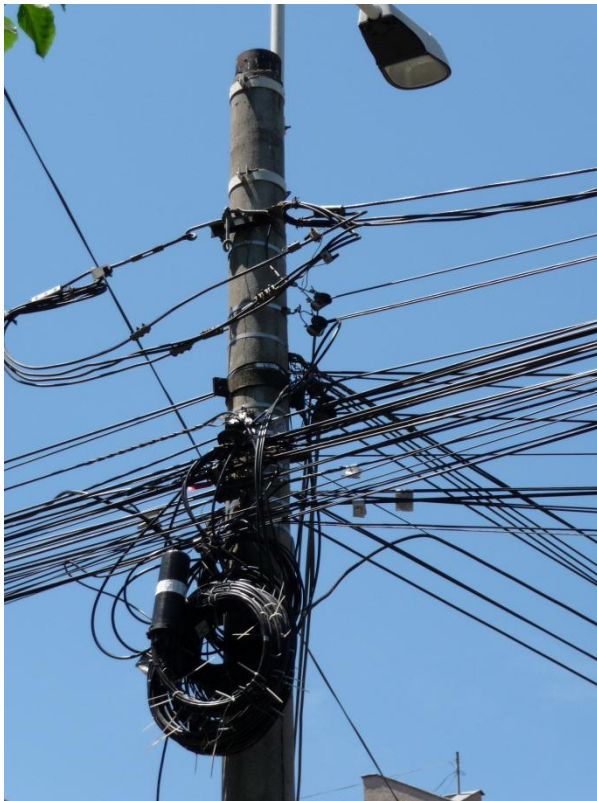
2. Retail voice markets competitive subject to regulation of call termination on fixed & mobile networks

Ex ante regulation for broadband access must be maintained

1. New retail market boundaries for broadband Internet access
 - Ultrafast broadband (fibre/VDSL/DOCSIS3) a chain substitute for standard broadband (ADSL)
 - LTE a substitute for fixed broadband access, where enough capacity (residential customers)
 - Differentiation of business-graded services (faster/more reliable, multi-site) from residential services
 - Convergence of business-graded broadband access and dedicated capacity

Ex ante regulation for broadband access must be maintained

2. Platform competition alone is not effective, except in few countries (Romania with lots of overground wiring)

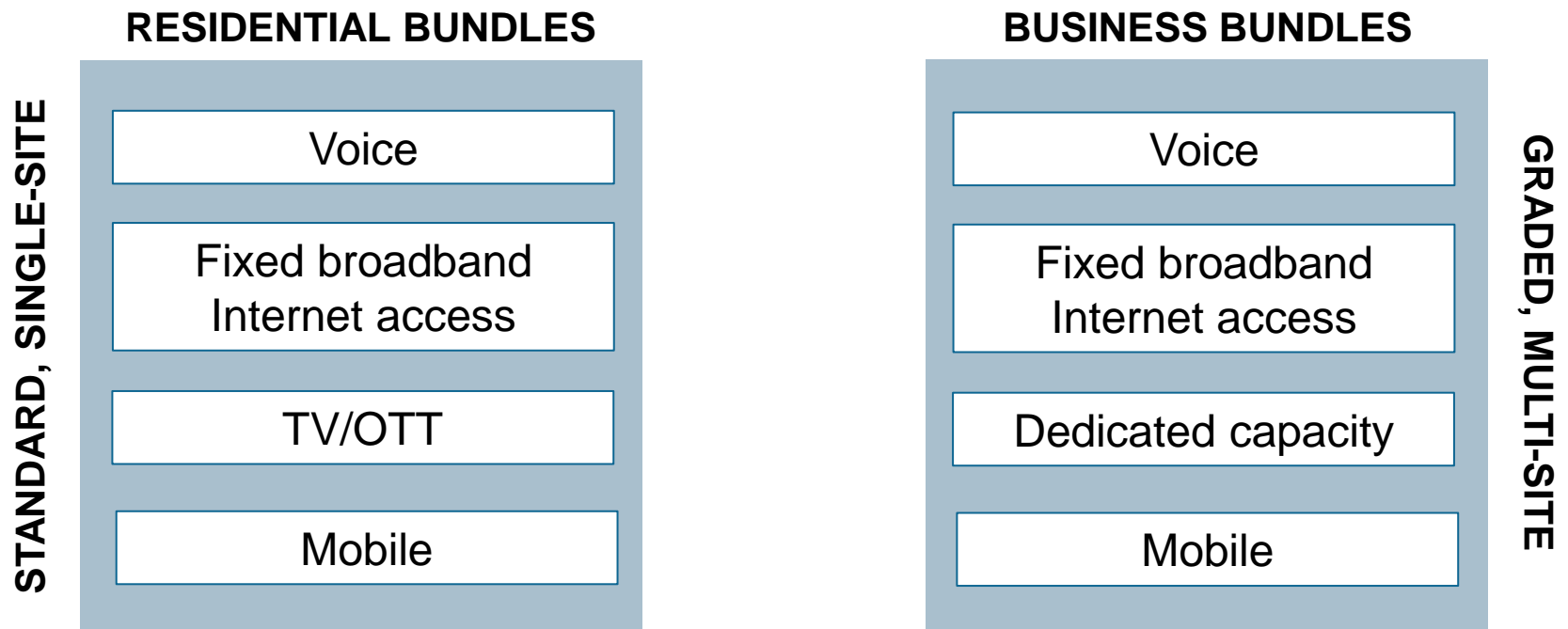


Ex ante regulation for broadband access must be maintained

3. Usually, retail broadband access markets will only tend towards competition subject to continued wholesale regulation
 - Unbundling of fibre and VDSL networks and, where not technically or economically feasible, virtual local access
 - Wholesale broadband access (except possibly for residential customers)
 - Terminating segments of wholesale dedicated capacity

Bundling may require new *ex ante* regulation

1. Longer term trend towards separate retail markets for bundles (are we already there?)

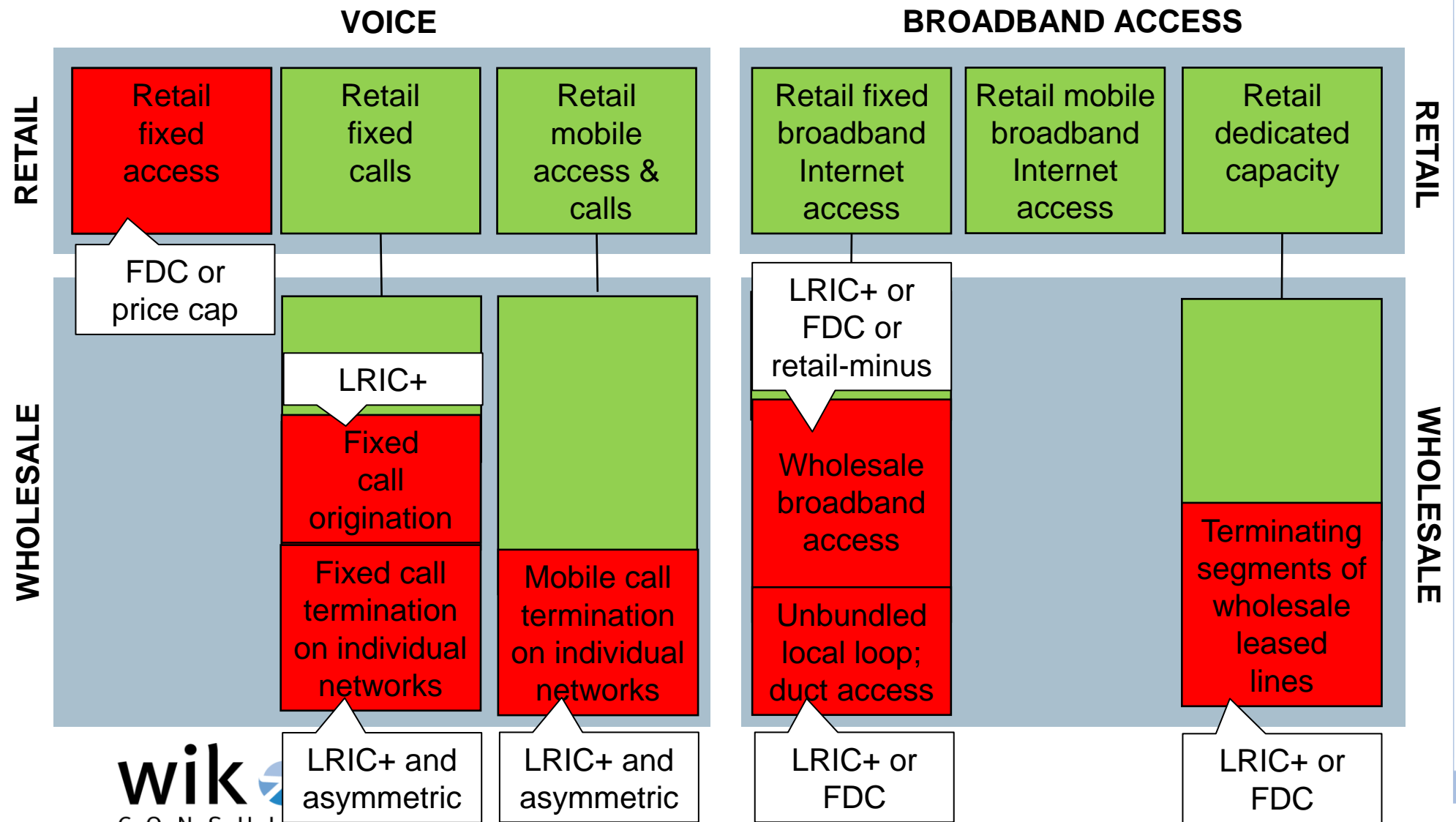


2. Need to regulate wholesale access for all components?

2. How adapt *ex ante* regulation of dominant operators?

Regulatory measures

În the past, most *ex ante* regulation included cost oriented prices based on LRIC+ or FDC



To avoid overcompensation, wholesale charges need to be reviewed

- Cost orientation to be based on efficient networks (the Modern Equivalent Asset)
 - Fixed and mobile call termination: NGN
 - Unbundling: Fibre access
 - Wholesale broadband access: Fibre access/NGN

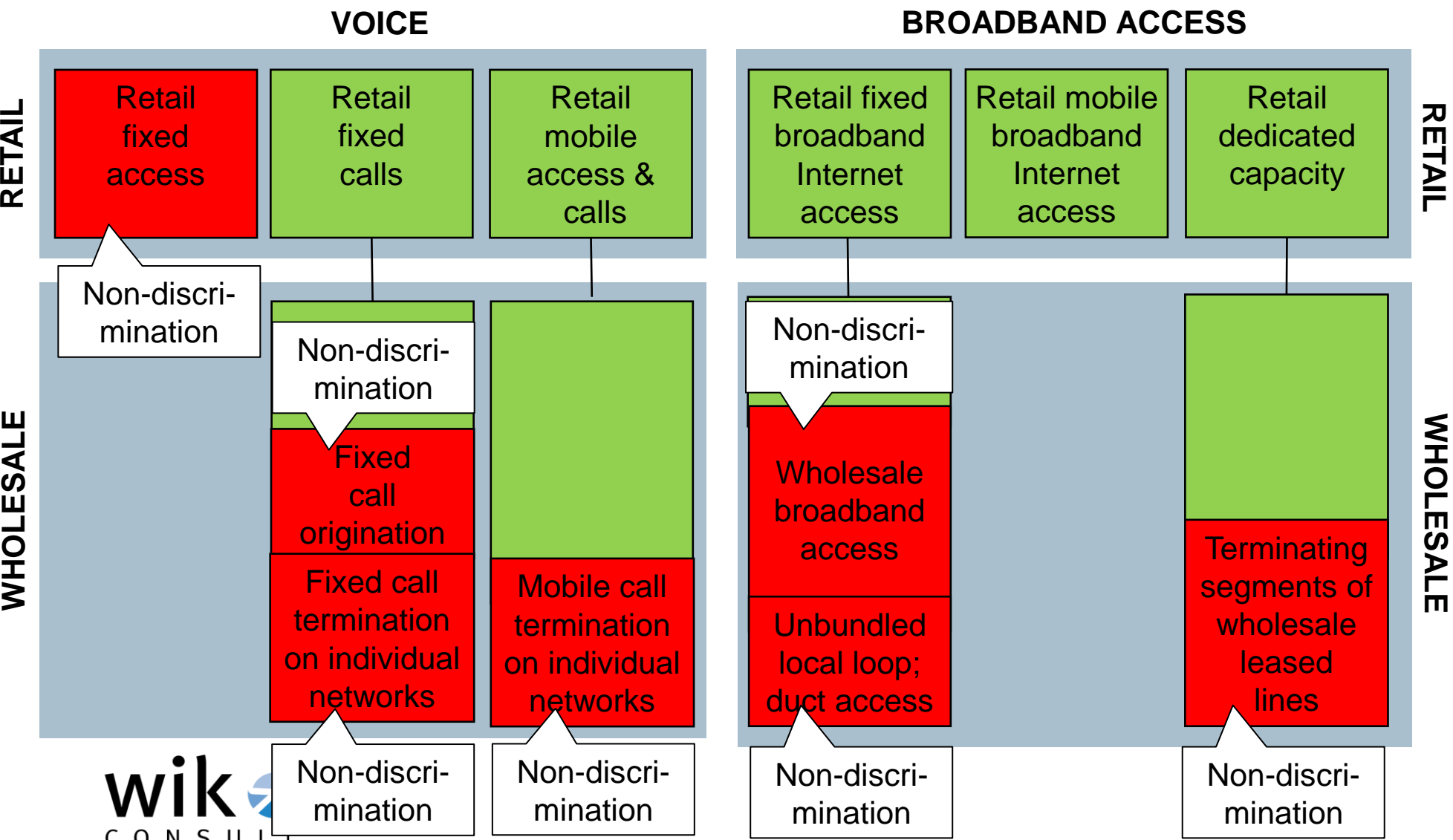
To avoid overcompensation, wholesale charges need to be reviewed

- Cost orientation to be based on LRIC
 - Fixed and mobile call termination: Pure LRIC in EU, but non-EU countries may go for LRIC+
 - Fibre unbundling: LRIC+
 - Copper unbundling: LRIC+ of fibre less performance delta between fibre and copper
 - Wholesale broadband access: LRIC+ or retail-minus
- Glidepath to target levels

To avoid foreclosure, bundles need to be tested for margin squeezes

1. Margin squeeze tests for individual products alone do not allow to capture margin squeezes on bundles
2. Need to test bundles for margin squeezes *ex ante*
3. A competitor should be able to cover the costs of wholesale inputs plus its own downstream costs
4. Downstream costs of a reasonably efficient competitor *versus* equally efficient competitor?

Current *ex ante* regulation of dominant operators includes non-discriminatory terms of access

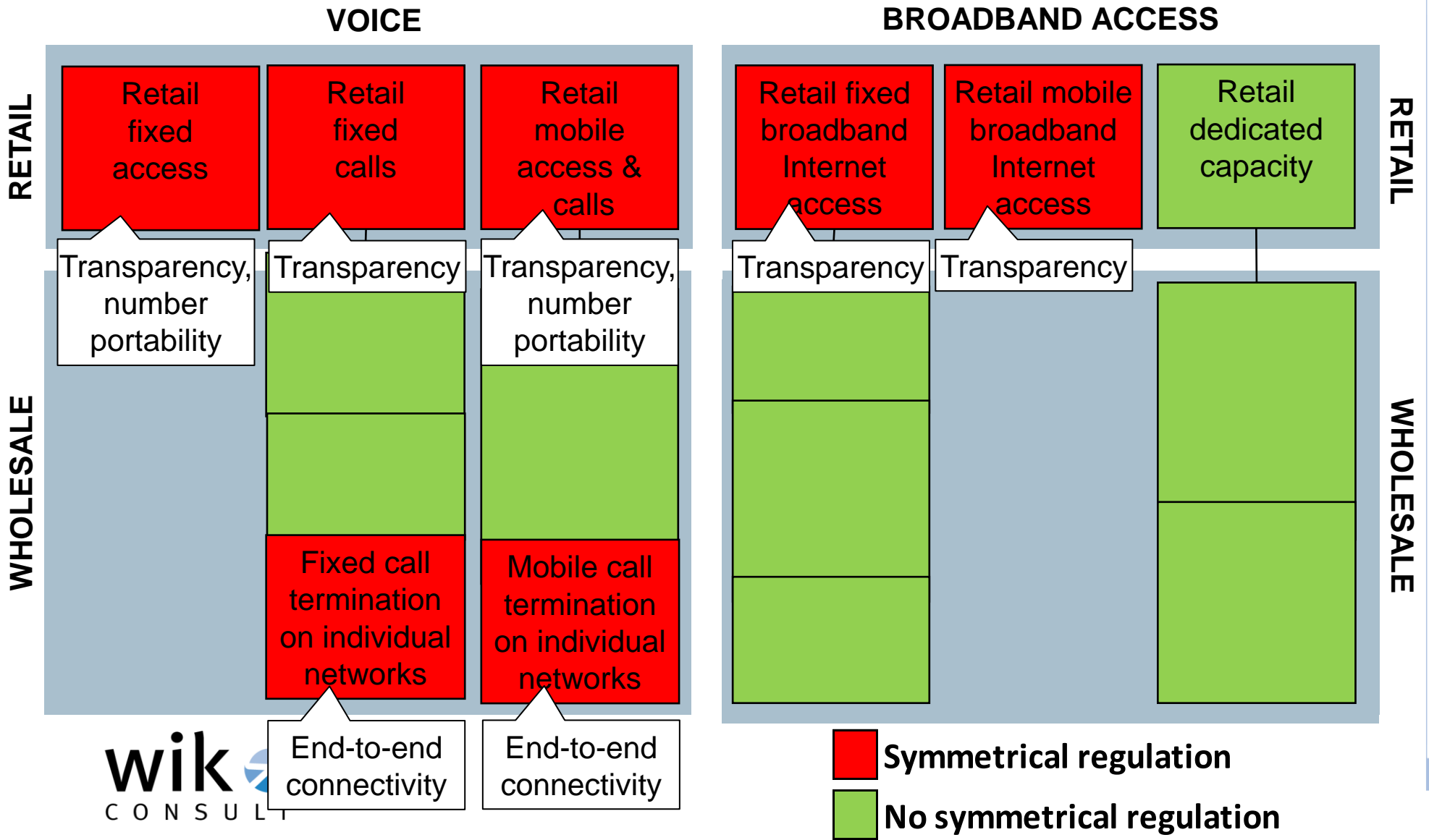


To avoid foreclosure, non-discrimination needs to be implemented much more effectively

1. Unbundling, wholesale broadband access, terminating segments
 - Need to ensure equivalence of access, including in delivery & fault repair
 - Functional separation as a measure of last resort
2. Transmission of third-party VoIP and other retail applications
 - Need for minimum quality standards against blocking/throttling
3. Call termination and IP interconnection
 - Discrimination less of a concern where there is reciprocal traffic exchange

2. Give symmetrical *ex ante* regulation greater emphasis?

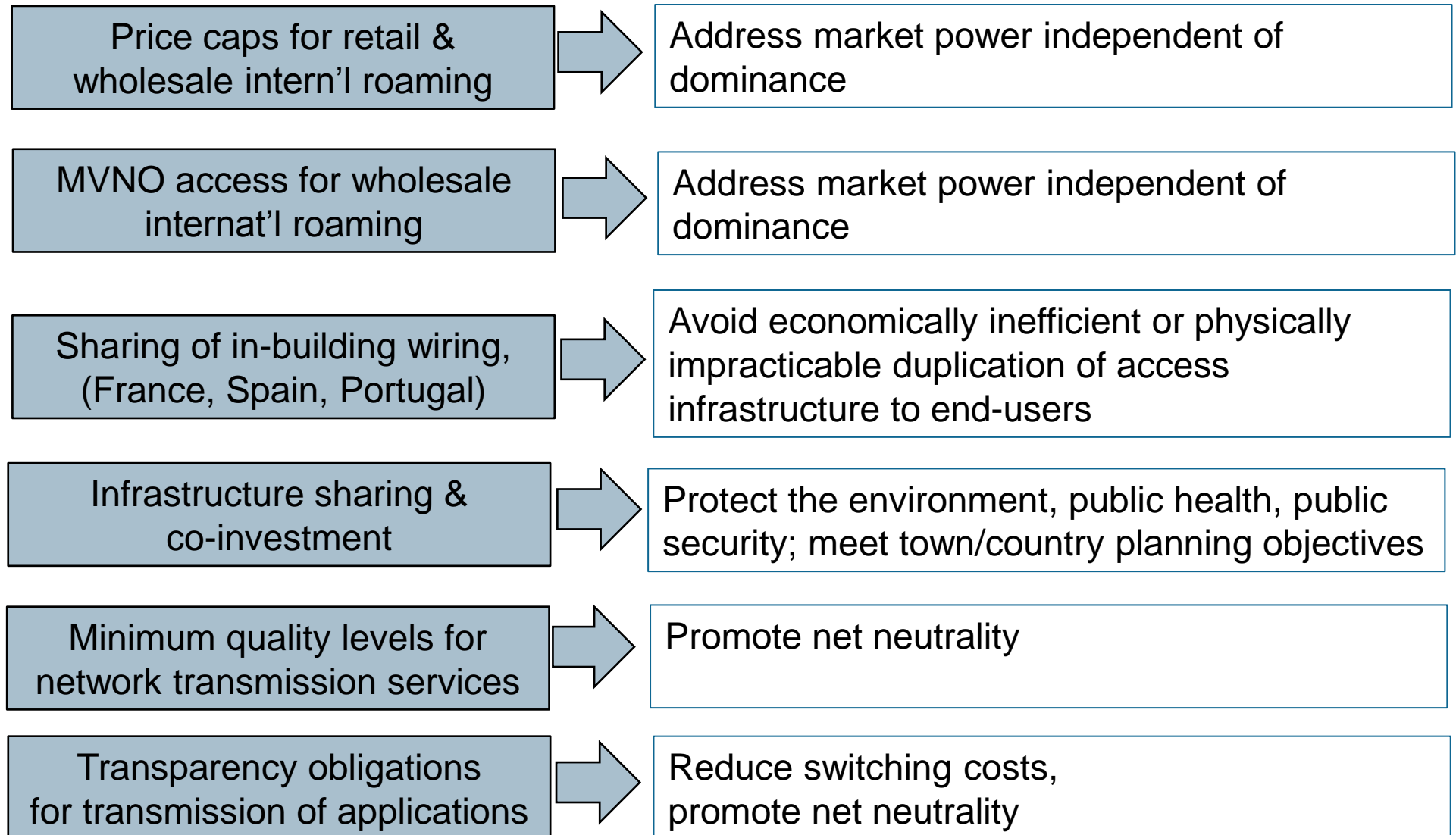
Past symmetrical *ex ante* regulation focused on transparency & end-to-end connectivity



Symmetrical *ex ante* regulation provides a complementary instrument to promote a variety of objectives

1. Ensure interoperability of services and end-to-end connectivity
2. Address market power independent of dominance
3. Avoid economically inefficient or physically impracticable duplication of access infrastructure to end-users
4. Promote net neutrality
5. Raise transparency and reduce switching costs
6. Protect the environment, public health, public security or to meet town and country planning objectives

All of these targets gain increasing importance



New approach to regulation of fixed and mobile networks – At the cross-road



Muchas Gracias por su atención!



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