How do wholesale only operators affect business models in fibre deployment

Presentation to the BCO network

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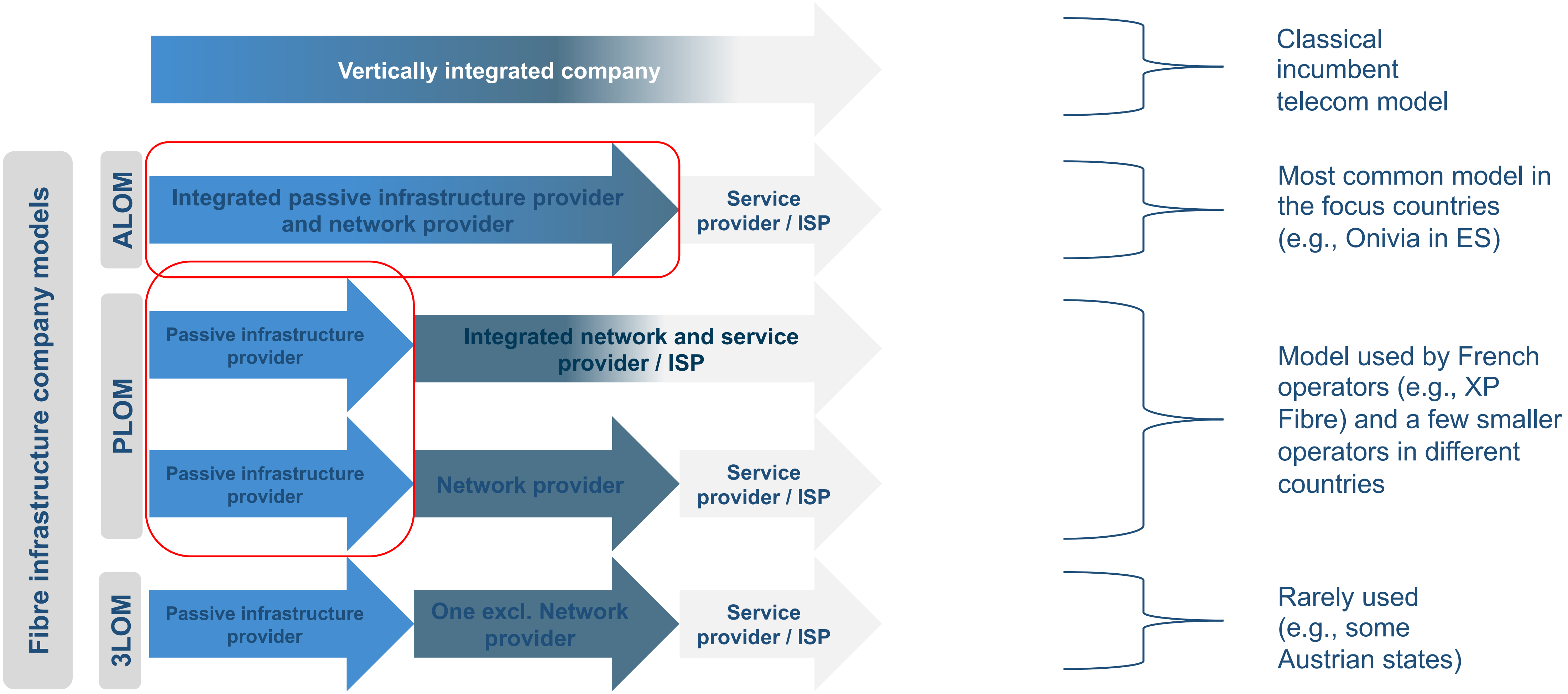
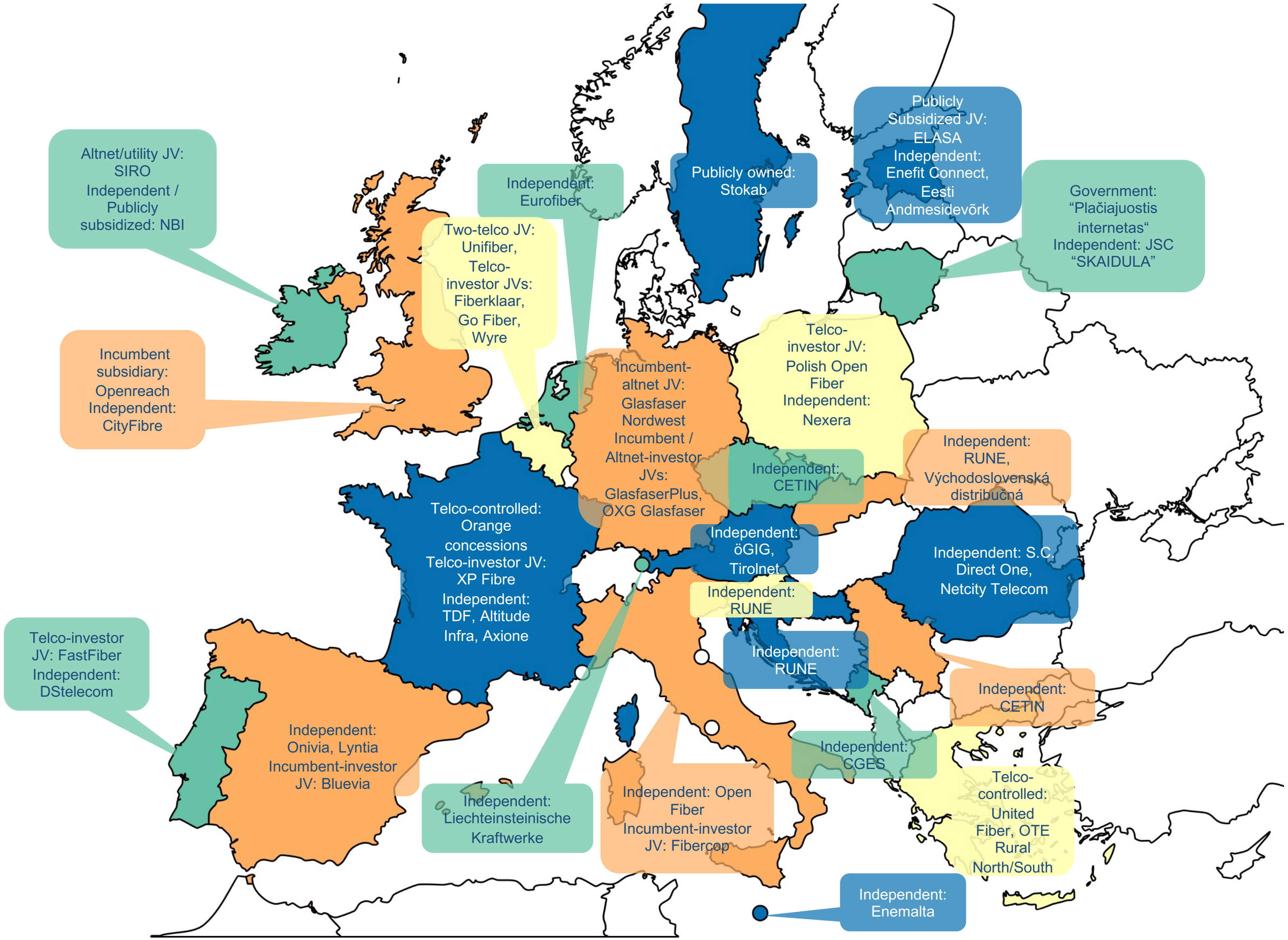
What do we mean by fibre netcos?



Source: WIK-Consult based on European Commission

ALOM: Active Layer Open Model; PLOM: Passive Layer Open Model; 3LOM: Three Layer Open Model

Overview of netcos in the EU



Most EU Member States (+ the UK) now feature wholesale only fibre netcos

In the US, independent fibrecos do not play a large role in the market.

Status and scope of fibrecos in the EU

- The scope and role of fibre netcos varies by country
- Many fibre netcos are independent or owned by infrastructure funds (e.g. UK Cityfibre) or municipalities (e.g. SE Stokab); but
- Some SMP operators have legally separated (e.g. UK) or created JVs with altnets/utilities for new deployment (e.g. DE glasfaser nordwest (DT/EWE), IT FiberCop (TI/Fastweb))
- Altnet utility JV in Ireland SIRO (Vodafone / ESB)
- Fibre netcos are typically created to address regional gaps in fibre coverage in commercial areas (e.g. DE, IE, UK), and/or to support fibre deployment in State Aid zones (e.g. PT, FR, AT, IT). In PT required to meet State Aid conditions
- Most fibre netcos offer active access to fibre (bitstream and/or VULA) with some also offering resale (e.g. Open Fiber IT, Cityfibre UK). Passive access (unbundled fibre) is typically only offered where required (e.g. State Aid) or by municipal networks as part of passive only business model.
- Moving down the value chain is seen as an opportunity for many fibre netcos, while competition from alternative networks including the incumbent (i.e. “overbuild”) is seen as a key threat

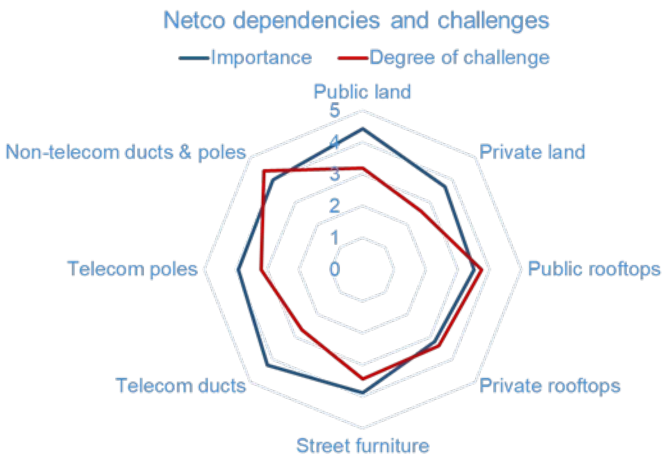
Assets held by fibre netcos

Country	Company	Number of access lines (newest data available)	Ownership / type of towerco
DE	**Glasfaser Nordwest**	700,000 premises	Incumbent-altnet JV
FR	**XP Fibre**	3.6 mln	Telco-investor JV
	TDF	750,000 plugs	Independent
IT	**Open Fiber**	13 mln real estate units	Independent
	Fibercop	5 mln households	Incumbent-investor JV
PL	**Nexera**	600,000	Independent
ES	**Onivia**	3.6 mln	Independent
	Lyntia	2.5 mln households covered	Independent
UK	**Openreach**	10 mln premises	Incumbent subsidiary
	CityFibre	2.2 to 2.5 mln premises	Independent
CZ	CETIN	250,000 households	Independent
IE	SIRO	500,000 premises passed	Altnet-utility JV
SE	Stokab	>90 percent of premises in the Greater Stockholm area	Independent, publicly owned

Includes all significant fibrecos in the focus countries and examples from the rest of Europe; **bold**: Focus countries and companies for this study;
Source: Company reporting, company answers to the survey, NRA information

- Vast majority of fibre from infrastructure companies in Italy and the UK. In Spain, it is a significant absolute number but mainly parallel deployment (households for which it is the 2nd fibre line)
- Divestiture of existing fixed infrastructure (copper or fibre) is an exception, the few cases it happened, this was through separation of incumbent's assets (CETIN, Openreach (although here BT remained owner of the assets))

Dependencies for fibre netcos

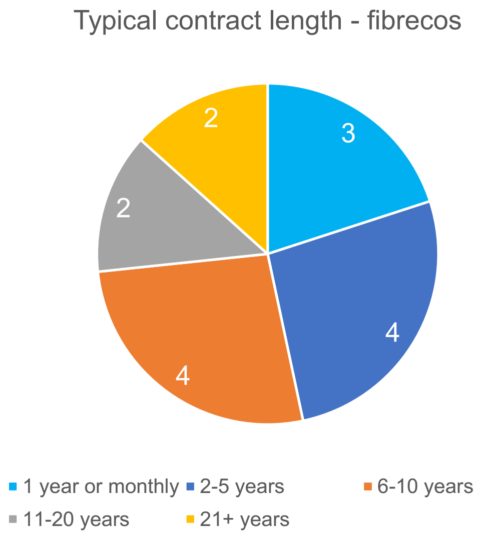


Source: Survey results

- Netcos have a high dependency on **access to public land** (mainly roads and pavements) and **telecom ducts and poles** for the deployment of networks
- Non-telecom ducts and poles (especially **poles from energy companies**) are also important in some countries e.g. IT and regions e.g. rural areas of FR and PT
- Challenges in accessing non-telecom ducts and poles are reported in some cases

- **Long timeframes and complexity in obtaining permits** are reported (common challenge for towercos)
  - Different laws and procedures at regional or local level; and/or
  - High number of administrations from different areas (e.g. dealing with environmental protection, historical monuments, national security, critical infrastructures)
  - Lack of digitisation / paper-based systems
- Netcos report that the **price of accessing poles** as a major barrier to deployment (information and regulatory regime perceived as less advanced than for ducts)

Conditions for access to fibre netcos



- Conditions for access to fibre netcos are typically **bespoke**, with the exception of netcos under the control of or divested by SMP operators (e.g. Openreach, FiberCop, Cetin CZ), and (in relevant areas) those in receipt of State Aid (e.g. Open Fiber), and those subject to symmetric regulation (e.g. Xpfibre, Orange Concessions, TDF in France)
- Long-term contracts are often offered (in some cases via IRU) for passive assets (such as unbundled fibre), while active access (e.g. VULA, bitstream) is more frequently available on the basis of short term lease. Some netcos also note that larger (main) customers rely on IRU.
- Contract lengths vary, but “typical” contract durations are e.g. 1, 2-5 or 6-10 years. A wide range of practices apply after contract expiry e.g. automatic renewal, renegotiation, open end contracts etc.

Conditions for access to fibre netcos: examples

- In State Aid areas, Open Fiber (IT) offers monthly rental for FTTH (end to end GPON) of €10.8 per month, and €110 installation
- An example of long-term "risk sharing" are conditions proposed by FiberCop (IT incumbent-owned JV), which include options for:

- **Minimum commitment:** Purchase commitments of guaranteed minimums of semi-GPON access for a period of 10 years.
- **IRU with access to the CRO:** Purchase of equipment dedicated to the co-investor through payment of a 20 year IRU, with the possibility of purchasing Semi-GPON access at the co-investment rate thereafter without any need for a guaranteed minimum commitment
- **IRU to "capacity":** Purchase of capacity (right to access a given number of lines) via 20 year IRU (so-called capacity IRU), whereby access seekers would make an advance payment of a fee based on the current value of the fees due to semi-GPON access for the entire duration of the IRU

- Fibre netcos (and vertically integrated) fibre deployers in FR offer conditions for access to unbundled fibre which have become standardised over time following symmetric regulation with dispute resolution by ARCEP and include:
  - One-off payments for IRU which vary depending on the time of co-investment (typical €500 per line)+ low recurring fees to cover operational costs (€5 per month per active line); or
  - Short term contracts with higher monthly fees
- Openreach (UK) offers discounts for operators with share of 90% FTTP connections for new orders (« Equinox 2 »). Subject to « failsafe » mechanism to support switching in areas with infrastructure competition

Telco perspectives on access to fibre netco infrastructure

- Access seekers are generally positive about the terms for access to fibre supplied by most netcos; however
- Concerns have been raised around **terms offered by the incumbent netco subsidiary** (e.g. in DE where access conditions not yet defined) and around variety of conditions and **pricing from infrastructure companies in rural (State Aid) areas** more generally
- Alternative fibre investors such as Open Fiber (IT) and CityFibre (UK) have cited concerns around the impact of **volume commitments and incentives** offered by SMP-owned netcos on the prospects for infrastructure competition.

Implications for competition and investment

Positive effects

- Netcos involving non-incumbents (altnets, municipalities and infrastructure funds) have been a key driver of **infrastructure competition** and **fibre deployment** in Europe
- **Positive impacts on downstream competition and innovation** as well, especially when passive access (unbundled fibre) is available

Key challenges

- Fibre netcos may have the **power to increase wholesale prices where there are limited alternatives** (reduced copper constraints / copper switch-off and expiry of State Aid conditions will exacerbate effects). **Telco ownership of infrastructure companies adds risk of discrimination**
- **Fragmentation** of offers limits ease of access while focus on **active access / bitstream limits differentiation / innovation**
- **Incumbent fibre netco JVs and/or volume commitments can limit infrastructure competition** in areas where viable

Experience of addressing competition concerns ex post

- Agreements setting up Netco's can be reviewed under EU or national merger rules (full function JV) or under the prohibition of restrictive agreements (Art. 101 TFEU and/or equivalent in national law)
- Merger Decisions relating to Netco's involving JV (including acquisition of FttH network subsidiaries of operators) without horizontal overlaps or vertical links between the activities of the companies are not problematic (and do generally not provide detailed market assessments).
  - E.g. the JVs Macquarie/Aberdeen/Pentacom and MásMóvil Assets (ES), Iliad/InfraVia (FR), Liberty Global/InfraVia/Liberty Networks, Telekom Deutschland/IFM investors JV, Vodafone/Altice FTTH JV (DE)
- However, the netco set up by Telekom Deutschland/EWE Group, gave rise to 2 decisions (DE), because there was an overlap since EWE was also deploying fibre and therefore entailed a potential reduction in infrastructure competition.
  - The commitments sought by the German NCA (EoI, minimum sales to 3^{d} parties etc..) provide a good indication of the safeguards expected by competition authorities in case of horizontal overlap.
  - Eventually, the NCA decision was annuled in appeal but the annulment was challenged on ist (still pending)
- Similarly, in Italy, both the investigations of the 80/20 Telecom Italia and Fastweb Flash Fiber JV and the Fibercop agreements were only closed after detailed commitments by the parties; attention was given to implications for downstream competition as well as infrastructure competition

Options to address competition concerns ex ante

- Limited options for ex ante regulation of access to towerco facilities. But same facilities could be regulated if controlled by an MNO

Ex ante provision	Applicable to:	Relevant to fibre netcos
SMP regulation (regulated wholesale access conditions) or commitments	Undertakings found to have SMP in a market that meets the 3 criteria test	**Yes** – applied in several cases for incumbent netcos (e.g. DE, IT, BE, UK, CZ), for altnets would in most cases require geographically segmented market definition (considered in SE, DK). SMP conditions can also be used to limit volume incentives (e.g. UK, IT) in order to safeguard infrastructure competition
Symmetric regulation of wiring and cables – terminating segment (Art 61(3) EECC)	ECN providers or owners of wiring, cables and associated facilities	**Yes, but restricted scope** (primarily for passive access to in-building cabling / or if justified first distribution point). FR main case, limited relevance elsewhere
State Aid conditions	Recipients of State Aid	**Yes** (several cases e.g. PT, PL, IT)
Access to physical infrastructure under Art 3 BCRD	Network operators (undertakings providing or authorised to provide public comms networks)	Access obligations relate only to physical infrastructure (ducts and poles) and not dark fibre, but **incentives to offer wholesale access to fibre on FRAND terms**

Experience of addressing competition concerns

SMP regulation of incumbents

- Netcos with significant participation from an SMP regulated telco are typically SMP regulated.
- In Italy, the FiberCop TIM majority owned JV is SMP regulated. TIM / FiberCop has applied for regulatory relief for its VHCN deployment under Art 76 (co-investment) – a decision is still pending
- In Germany the incumbent/regional operator JV Glasfaser Nordwest is expected to be regulated (decision of BNetzA is awaited in 2023).
- The JV of Proximus, Fiberklaar and Unifiber, have inherited the regulatory SMP obligations (access, non-discrimination, transparency, price control) imposed by BIPT on Proximus as a result of the joint control exerted by Proximus. Also, recently a joint-venture ("Wyre") between Telenet and Fluvius has been set up, which will inherit the regulatory SMP obligation imposed by BIPT on Telenet as a result of the joint control exerted by Telenet (however, Telenet holds SMP only in the market for central access to wholesale cable networks (and broadcasting), not on the market for local/central access to FTTH).
- In Portugal, in ANACOM's draft decisions of April 2023 concerning the M1/2020 market analysis, infrastructure companies with direct links with the incumbent (i.e. fibre operator) were identified as having SMP (e.g. Fastfiber in M1/2020).
- Wholly owned incumbent spin-offs (UK) Openreach and CZ CETIN are SMP regulated and considered not to meet Article 80 (wholesale only) criteria.
- Most SMP obligations focus on ensuring non-discrimination and preserving the potential for downstream competition. However, there have been interesting efforts in the UK to set SMP rules so as to limit concerns regarding impact on infrastructure competition (limitations on volume commitments relating to Equinox in areas where infrastructure competition is present)

Experience of addressing competition concerns

Addressing local monopolies / State Aid zones

- Symmetric access regulation for passive fibre access in less dense areas (presumed natural monopoly) is applied in FR. This has the effect of providing the same access conditions across multiple vertically integrated players and netcos for fibre access, and aligns conditions between commercial and State Aid zones
- State Aid specific access obligations apply on fibre netcos inter alia in IT, PL, PT
  - In Portugal fibre networks in rural areas have been licensed to wholesale-only network operators
  - In Poland different price regulation applies to wholesale-only network operators in the context of state aid: margin squeeze tests for vertically integrated operators, whereas wholesale-only operators are price regulated based on benchmarking rules
- SMP regulation of alternative fibre netcos is rare, but has started to come under consideration in countries where such netcos may have localized market power e.g. in DK and SE

Conclusions and recommendations

Problem

In countries with multiple netcos / regulatory regimes, telcos face challenges in making use of access due to differing wholesale products and access rules

Establish NRA as single co-ordinating body for access rules for SMP / symmetric remedies / State Aid etc. Set standards and monitor compliance / update remedies on regular basis

As copper constraints diminish or copper is decommissioned, alternative (non-incumbent-controlled) netcos may gain market power in areas where fibre duplication is not viable and other applicable remedies e.g. State Aid expire.

NRAs should consider geographic segmentation / imposition of SMP remedies in cases where fibre netcos do not face constraints from copper and/or actual / potential infrastructure competitors. Applicability of Article 80 (wholesale only) will need to be considered. The fact that fibre netcos in some areas may have monopoly position will need to be taken into account when considering any need for price control

JVs between large telcos and/or volume incentives / commitments can hinder infrastructure competition (where viable)

NRAs / NCAs should limit tie-ups / volume commitments in areas where alternative infrastructures are feasible / likely

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