

Network sharing: the portuguese approach

**23rd Annual Communications and Competition
Law Conference – IBA**

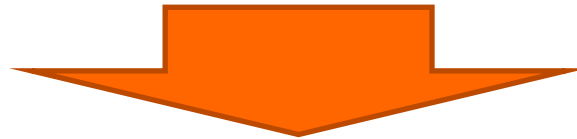
Eduardo Cardadeiro

Sharing non-replicable inputs stimulates efficiency and competition

... which inputs? Fixed infrastructure? Ducts and poles? Cables? Spectrum?

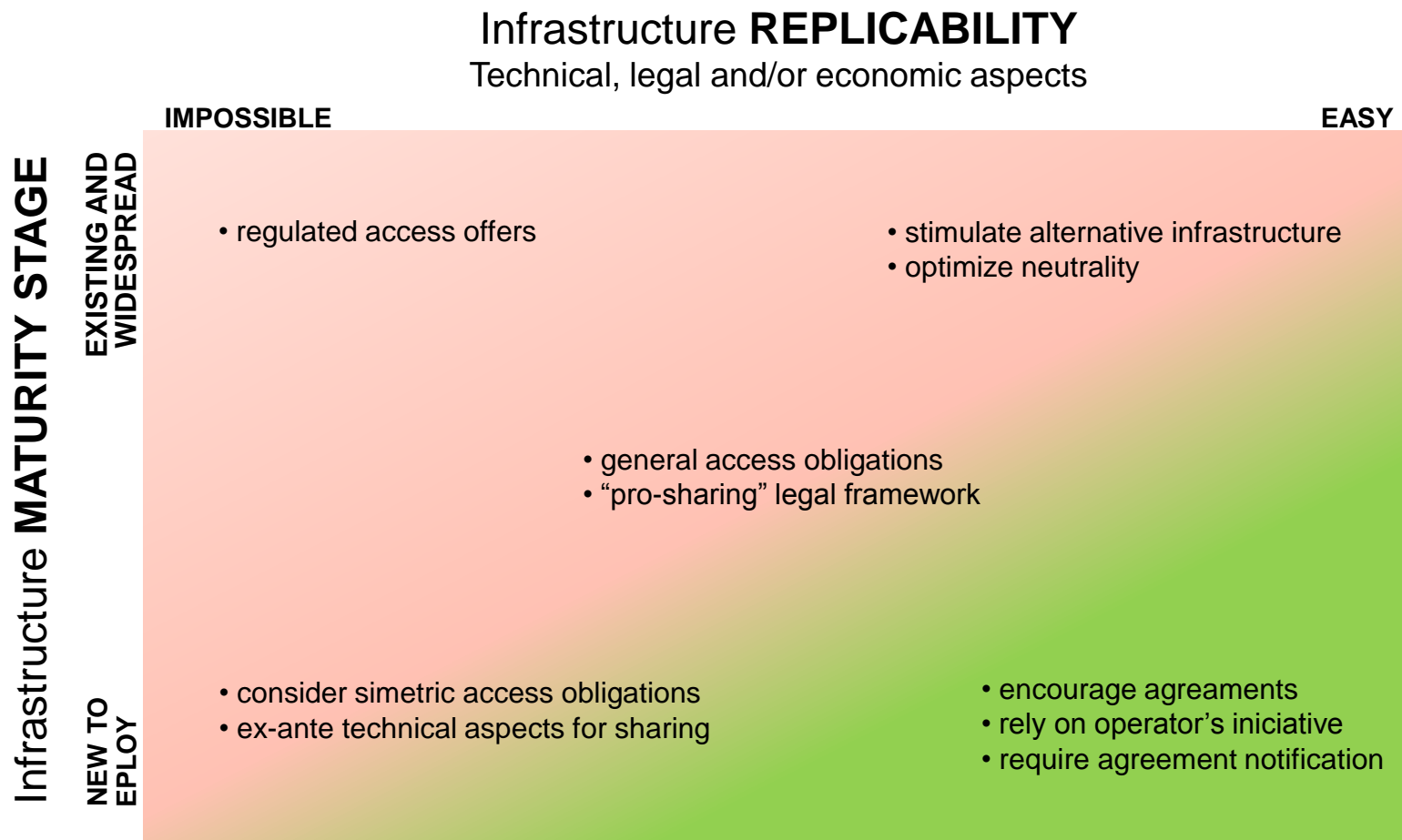
... at what cost? Direct cost? Dynamic incentive distortion?

... which type of competition? Short-term? Innovation based?



- **Case-by-case prospective analysis**
- **Several trade-offs to be considered**

Non-existing infrastructures cannot be shared!



Portugal: 2004 visionary duct access

1991

A licence for the operation of a cable network was given to the incumbent

Incumbent obliged to follow equality access conditions in the installation on cable networks in its ducts

Level the playing field regarding the deployment of cable networks

2003

Duct access generally foreseen in the **Concession Contract** signed between the State and the incumbent

ANACOM's intervention - regarding prices - in the absence of agreement for any operator (not only cable)

2004

Duct access specifically foreseen in the National **Electronic Communications Law**

Terms of the offer established by ANACOM

2006

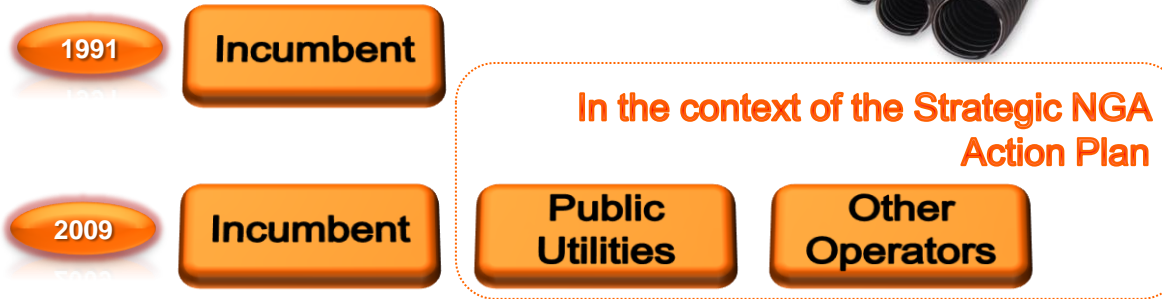
Reference Offer for Duct Access entered into force

2009

Extension of duct access obligation to all the public entities and telecom operators (legislative measure)

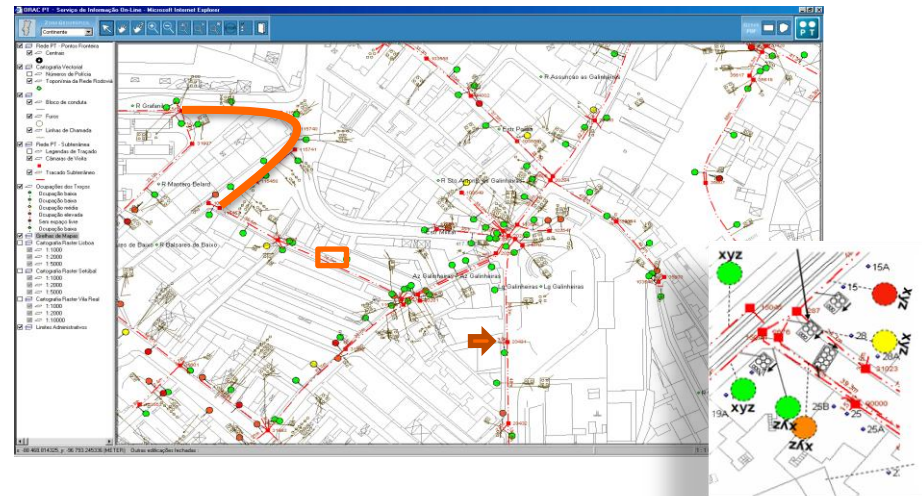
Inclusion of duct access obligation in market 4 analysis

- Extension of the scope of duct access

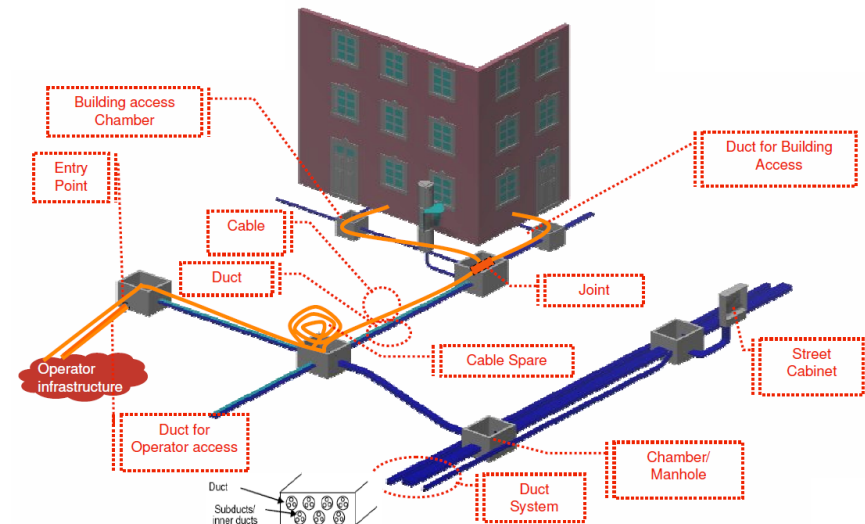
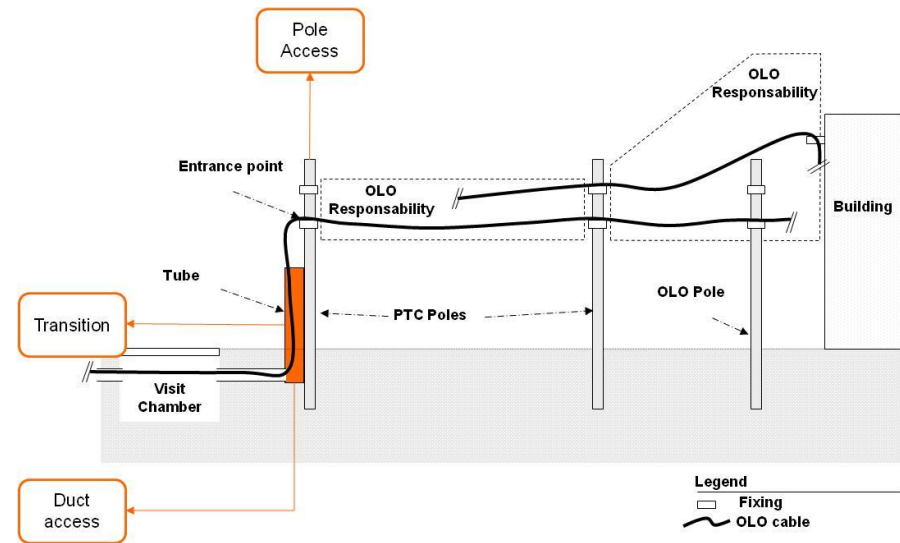


- Improvement of existing offer

- procedures
- SLA
- information system: duct availability



- **Extension to poles**
- **Public announcement of civil works**
 - 20 days in advance
 - cost sharing
- **Centralized infrastructure database**
- **Simetric sharing**
 - vertical duct and fiber sharing
 - dual fiber per apartment requirement
 - free access to inbuilding infrastructure



ICP-ANACOM considers the imposition to PTC of an obligation of providing a virtual access to fibre (VULA)⁽¹⁾, in all territory except in the 17 municipalities, and to publish a reference offer in a 3 months time.

Non discrimination, transparency, accounting separation and price control obligations – with demonstration of non margin squeeze – also applies.

VULA characteristics

Local access (OLT level)



Service agnostic



Ensures sufficient control of the access connection

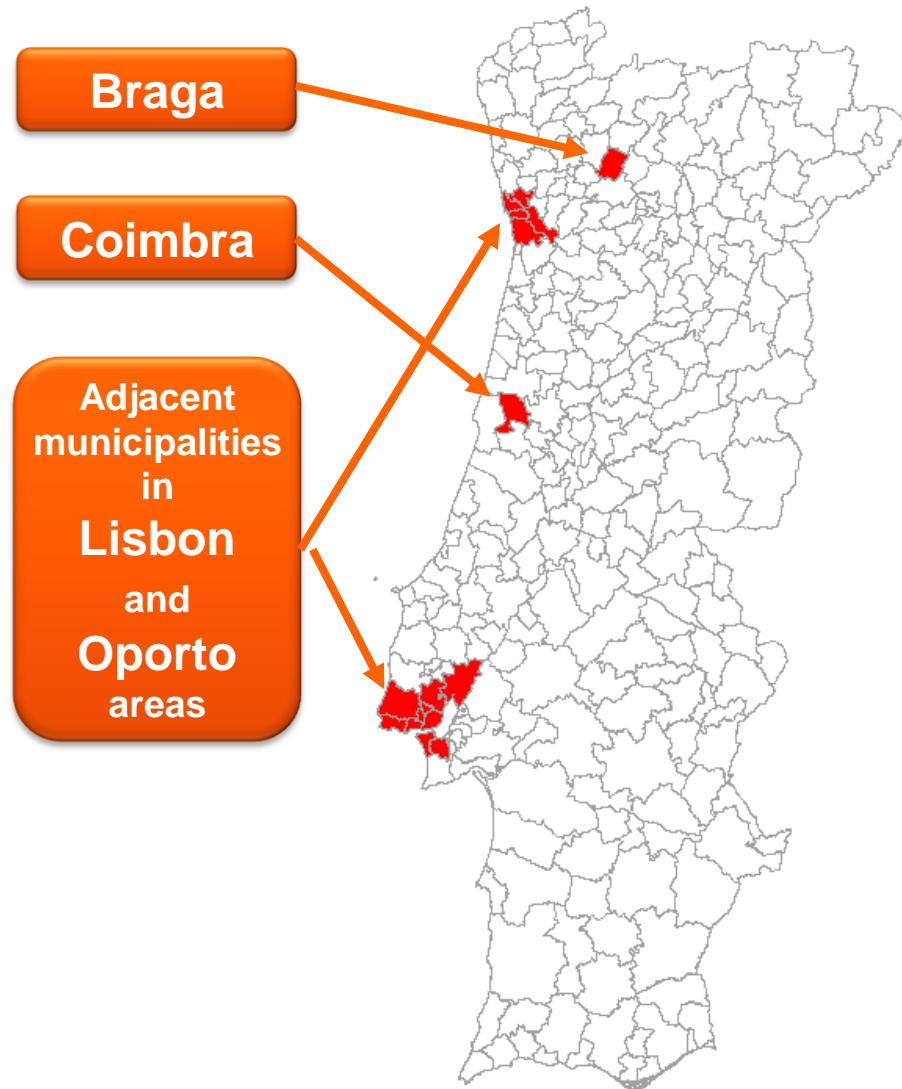


Ensures sufficient control of customer premises equipment



Municipalities without VULA

ICP-ANACOM draft decision of 6th February 2012, excepted 17 municipalities from the obligation of virtual access to fibre, assuming there are/were conditions for replicability of fiber networks



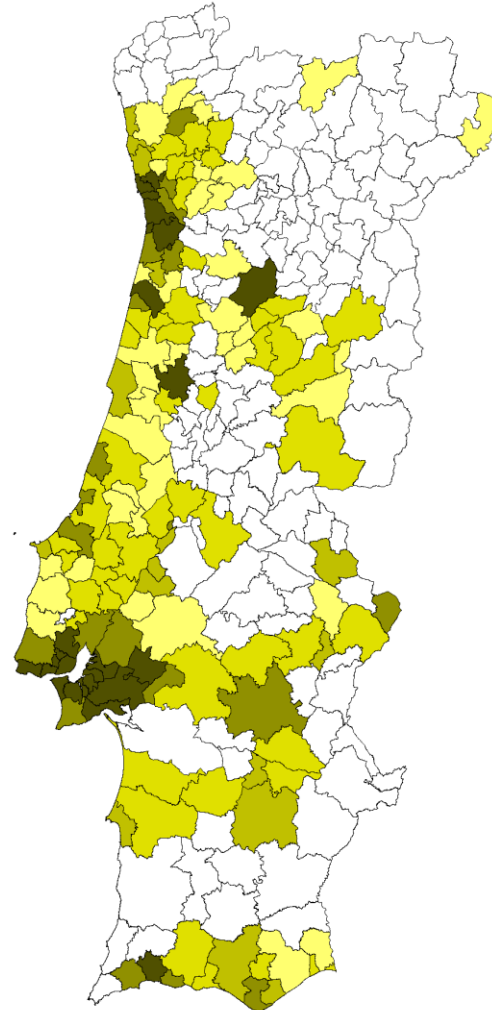
- **Euro Docsis 3.0**

- 3,9 million household passed
- > 90% portuguese households

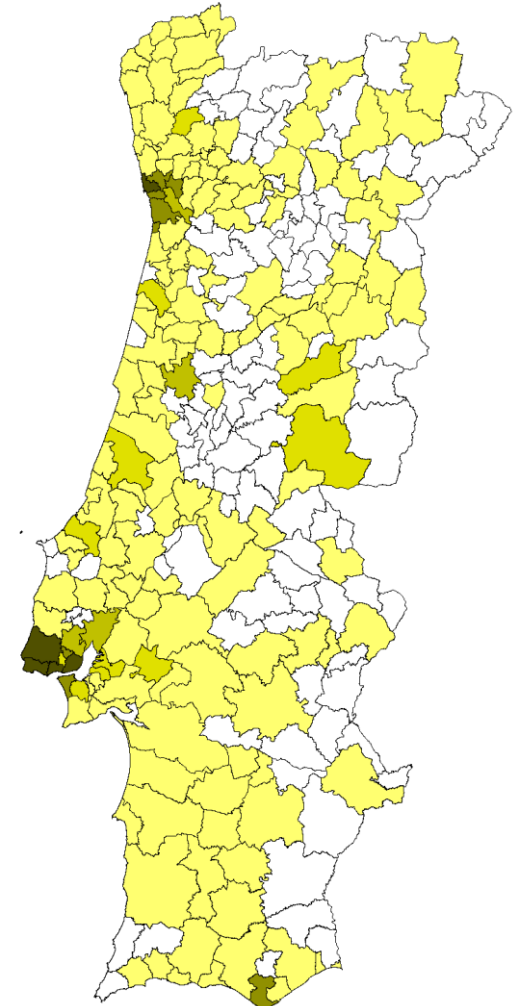
- **FTTH networks**

- 1,9 million household passed
- > 45% portuguese households
- Vodafone + OPTIMUS shared network

DOCSIS



FTTH



- **2G and 3G networks**

- 3 MNO with 25% shared sites
- 2 MVNO

- **LTE auction**

- Access obligations for operators holding 20MHz of 800 or 900 bands
- MVNO obligations
- Itinerancy/"national roaming" obligations