

Regulatory policies to foster NGA deployment in France, Germany, The Netherlands, Portugal and Spain

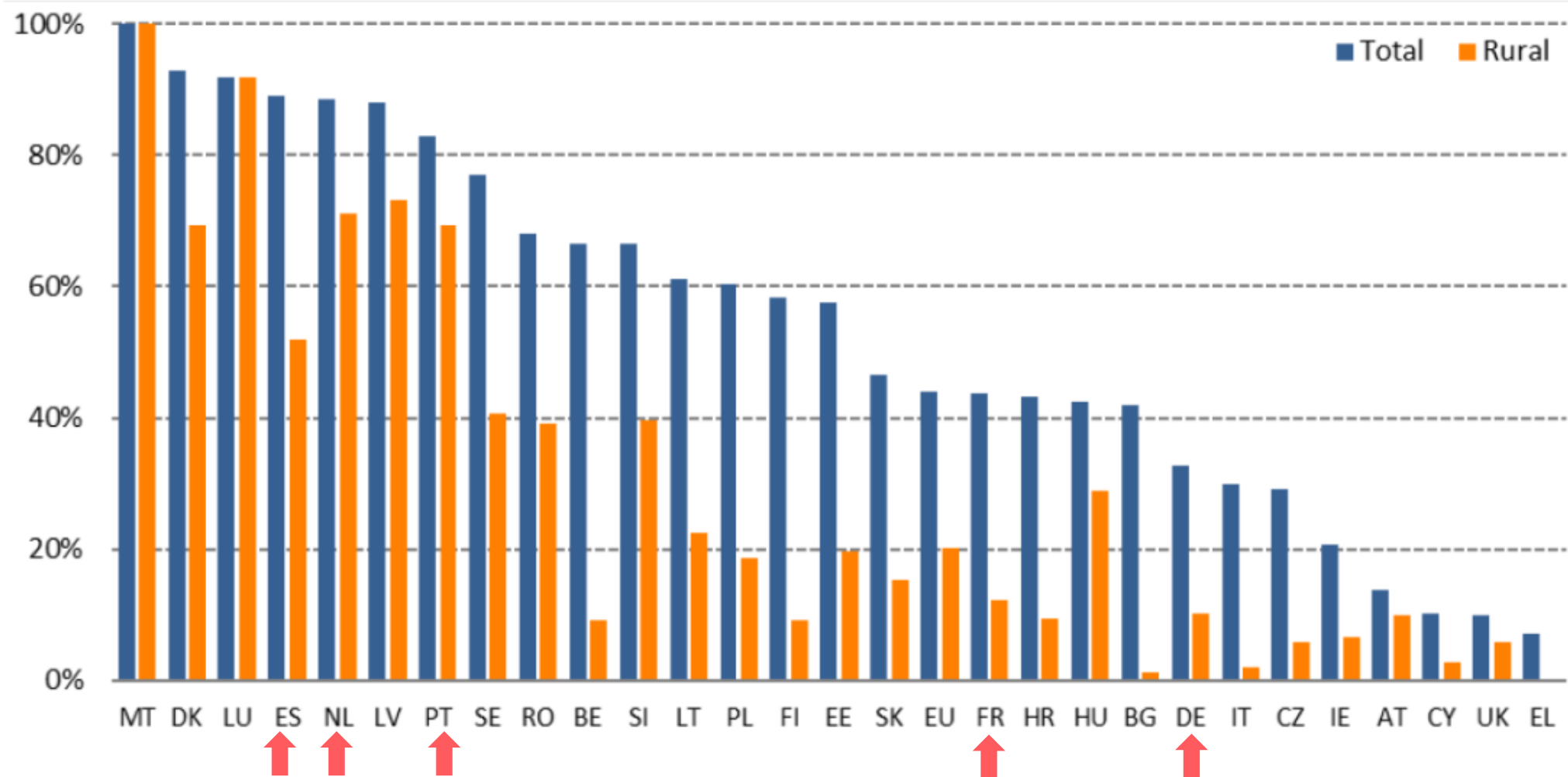
Organo di Vigilanza
















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Fixed very high capacity network (VHCN) coverage (% of households), mid-2019



Country	Main NGA type	Main drivers for competition			Equivalence
		Players with nationwide infrastructure	Co-investments	Regulatory focus	
FR 	FTTH and cable			Infrastructure-based	EoI and EoO
DE 	FTTC and cable			Service-based	EoO
NL 	Cable, FTTC and FTTH			Service-based	EoI and EoO
PT 	FTTH and cable			Infrastructure-based	EoI and EoO
ES 	FTTH and cable			Infrastructure-based	EoO

Country	Main regulatory approach to NGA access
FR 	<p>SMP obligations:</p> <ul style="list-style-type: none"> access to ducts and poles at cost-oriented prices <p>Symmetric regime:</p> <ul style="list-style-type: none"> access to fibre terminating segment with co-investment in less densely populated areas
DE 	<p>SMP obligations:</p> <ul style="list-style-type: none"> regional IP bitstream subject to ex post price control only layer 2 BSA at cost-oriented prices long-term discounts scheme ('contingent model') permitted
NL 	<p>SMP obligations:</p> <ul style="list-style-type: none"> fibre unbundling for FTTH with a multi-year price cap VULA for FTTC at commercially agreed prices
PT 	<p>SMP obligations:</p> <ul style="list-style-type: none"> access to ducts and poles at cost-oriented prices no regulated access to FTTH <p>Symmetric regime:</p> <ul style="list-style-type: none"> access to ducts and poles and in-building fibre
ES 	<p>SMP obligations:</p> <ul style="list-style-type: none"> access to ducts and poles at cost-oriented prices no regulated access to FTTH until 2016 since 2016 regulated access to VULA and BSA over FTTH only in non-competitive areas <p>Symmetric regime:</p> <ul style="list-style-type: none"> access to in-building fibre

France – symmetric FTTH regulation & co-investment



Market context

- **Main NGA coverage (62% HH):** FTTH (44% HH) and cable (27% HH)
- **NGA take-up (24.8%):** mainly FTTH (20% of fixed broadband lines)



Regulatory approach

SMP obligations:

- access to ducts & poles at cost-oriented prices

Symmetric regime:

- access to FTTH terminating segment: in-building fibre in densely populated areas and aggregation points of min. 1000 lines in less densely populated areas
- no ex ante price control



Main drivers for NGA deployment

- **Orange** with 46% HH FTTH, **SFR's** cable & FTTH in urban areas, **Free** and **Bouygues Telecom** lower scale FTTH
- Regulatory-driven co-investments in less densely populated areas
- Public FTTH investment in undeserved areas
- Twofold regulatory framework



Elements of equivalence

- **Eol:** ducts & poles access for SMP and symmetric access regulation for fibre terminating segment
- **EoO:** legacy copper-based products

Germany – asymmetric regulation encouraging FTTC



Market context

- NGA coverage (92% HH): DT's nationwide FTTC (87% HH), cable (66% HH), FTTH (11%) HH
- NGA take-up (53% HH): FTTH <4% total lines
- Local or regional FTTH/B deployments by small ANOs (typically utilities)



Regulatory approach

SMP obligations:

- shifting from SLU to regional IP BSA and new layer 2 BSA (VULA)
- long-term discounts scheme 'contingent model'



Main drivers for NGA deployment

- DT's FTTC: short loops & limited duct infrastructure & restrictive permit policies
- NRA focus on access to DT's network
- public NGA investments in undeserved areas



Elements of equivalence

EoO: for all fixed access products

The Netherlands – a tale of two networks



Market context

- NGA coverage (98% HH): FTTC (56% HH), FTTH (33% HH) & cable (98%)
- NGA take-up: cable (49%), FTTC (33%) and FTTH (19%)



Regulatory approach

SMP obligations:

- fibre unbundling for FTTH with a multi-year price cap
- VULA for FTTC at commercially agreed prices with long-term volume discounts



Main drivers for NGA deployment

- KPN “incumbent” (FTTC and FTTH) and Vodafone Ziggo (cable)
- No ducts used – cable buried in the ground
- Regulatory focus on access to KPN network
- Attempt to regulate cable unsuccessful



Elements of equivalence

- EoI: over FTTH
- EoO: over copper and FTTC

Portugal - infrastructure competition and co-investment



Market context

- **NGA coverage (83% HH):** FTTH (77% HH) and cable (59% HH)
- **NGA take-up:** 61% HH (> 30 Mbps) and 56% HH (> 100 Mbps)



Regulatory approach

SMP obligations:

- cost-oriented access to ducts & poles
- no FTTH regulation and partial deregulation of copper BSA

Symmetric regime:

- access to ducts & poles and in-building wiring



Main drivers for NGA deployment

- MEO, NOS and Vodafone nationwide infrastructure competition
- commercially driven co-investments
- public NGA investments in underserved areas



Elements of equivalence

- Eol: ducts & poles access
- EoO: copper LLU

Spain – infrastructure competition and co-investment



Market context

- **NGA coverage (90% HH):** FTTH (90% HH) and cable (48.9% HH)
- **NGA take-up:** FTTH prevails (70% total residential broadband lines)



Regulatory approach

SMP obligations:

- Cost-oriented access to ducts & poles
- No FTTH regulation until 2016
- From 2016, regulated access to VULA and BSA over FTTH only in non-competitive areas

Symmetric regime:

- access to in-building wiring



Main drivers for NGA deployment

- Nationwide infrastructure competition: Telefónica, Orange, Vodafone and MasMóvil
- Commercially-driven co-investment and sharing agreements
- Public investments in underserved areas



Elements of equivalence

EoO: for all fixed access products



Thank you!

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