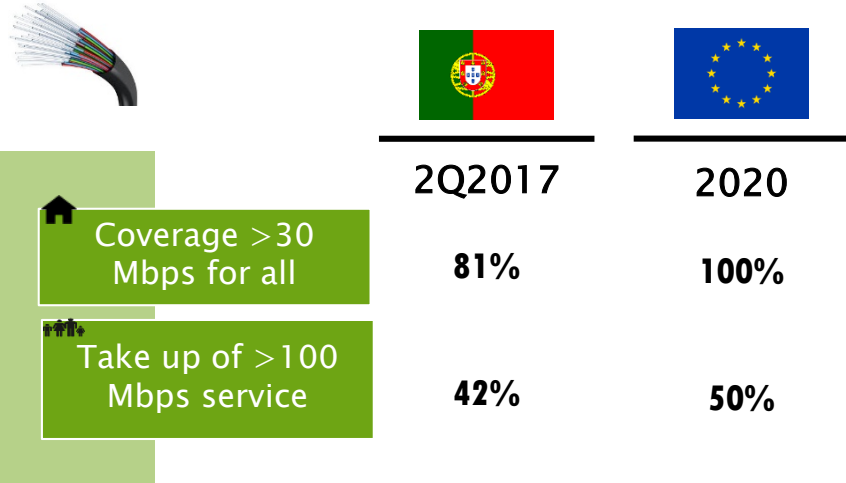


NEW MODELS OF INVESTMENT AND COMPETITION IN THE ACCESS FRAMEWORK

BEREC, October 2017

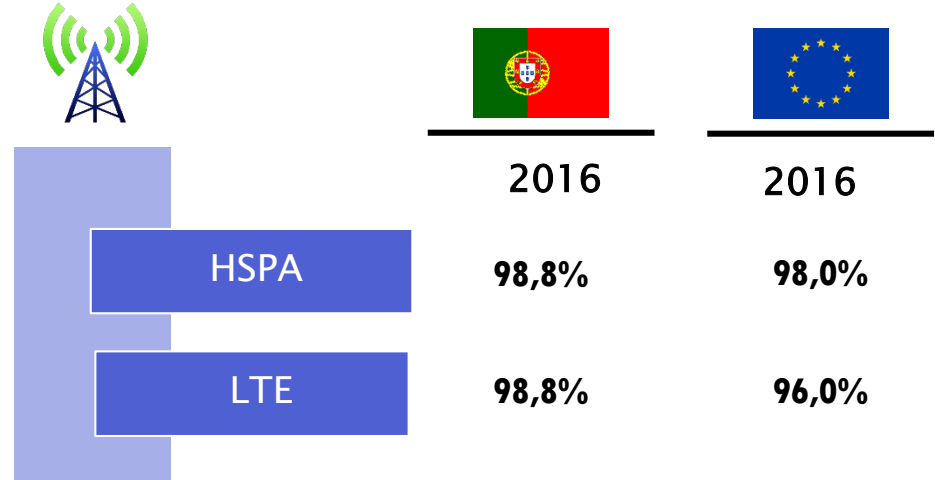
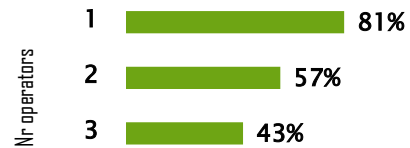


The Portuguese Market in numbers



Source: ANACOM

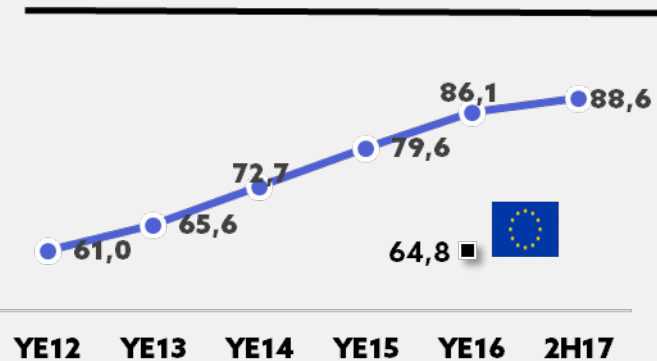
% population able to choose *n* NGN operators



Source: ANACOM

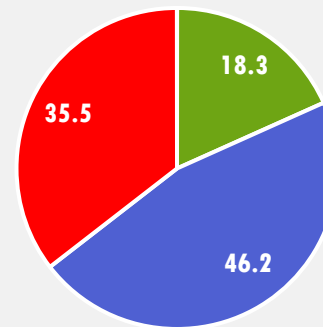
Unit: population

Bundles (%)



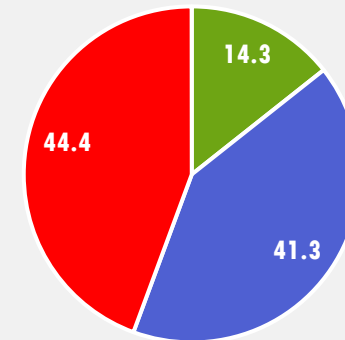
Source (Portugal): ANACOM
Penetration: Special Eurobarometer 438 (Most recente information)

2H2014
(% xP)



■ 2P ■ 3P ■ 4/5P

2H2017
(% xP)

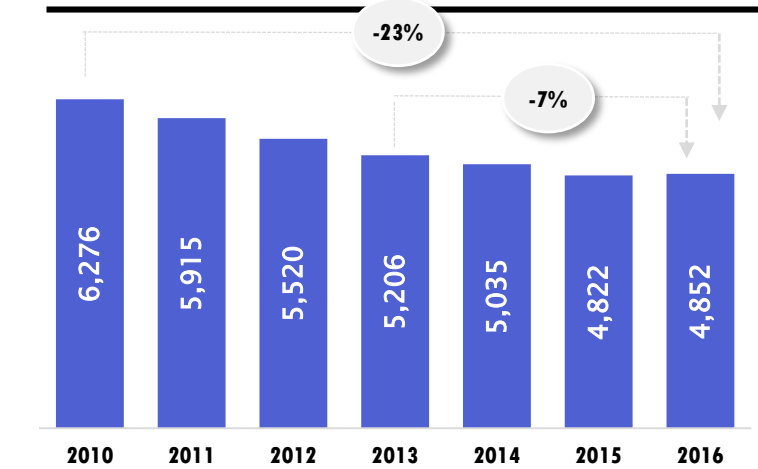


■ 2P ■ 3P ■ 4/5P

Pressure on revenues has not diminished NOS commitment with investment as a growth lever

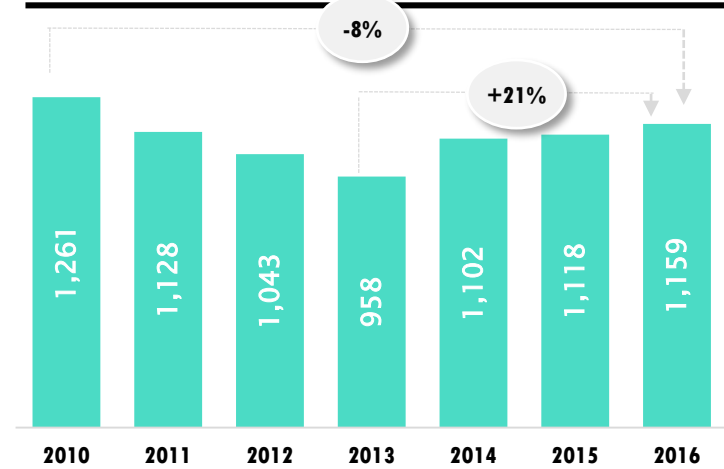


Revenues (M€)

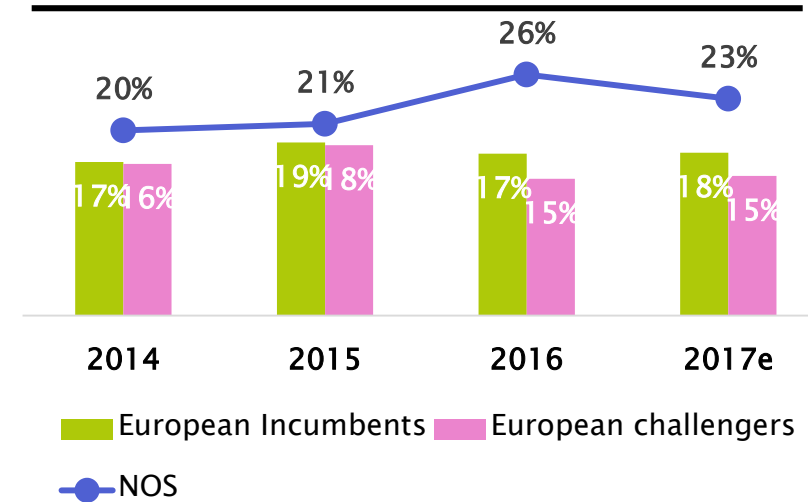


Source: NOS Annual accounts

Capex (M€)

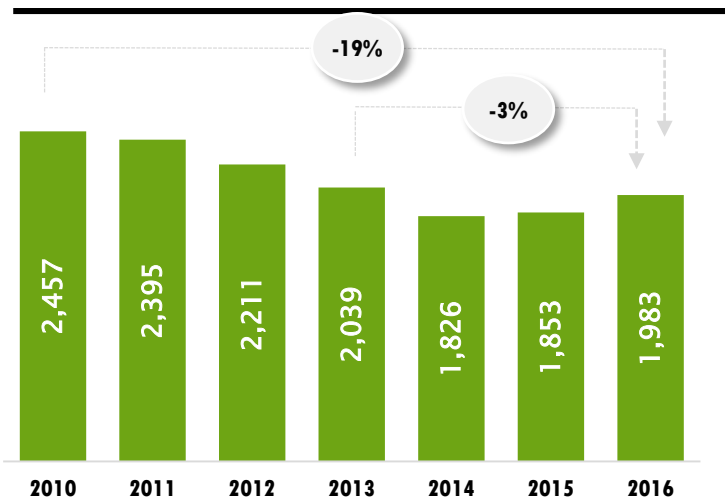


Capex to sales (%)



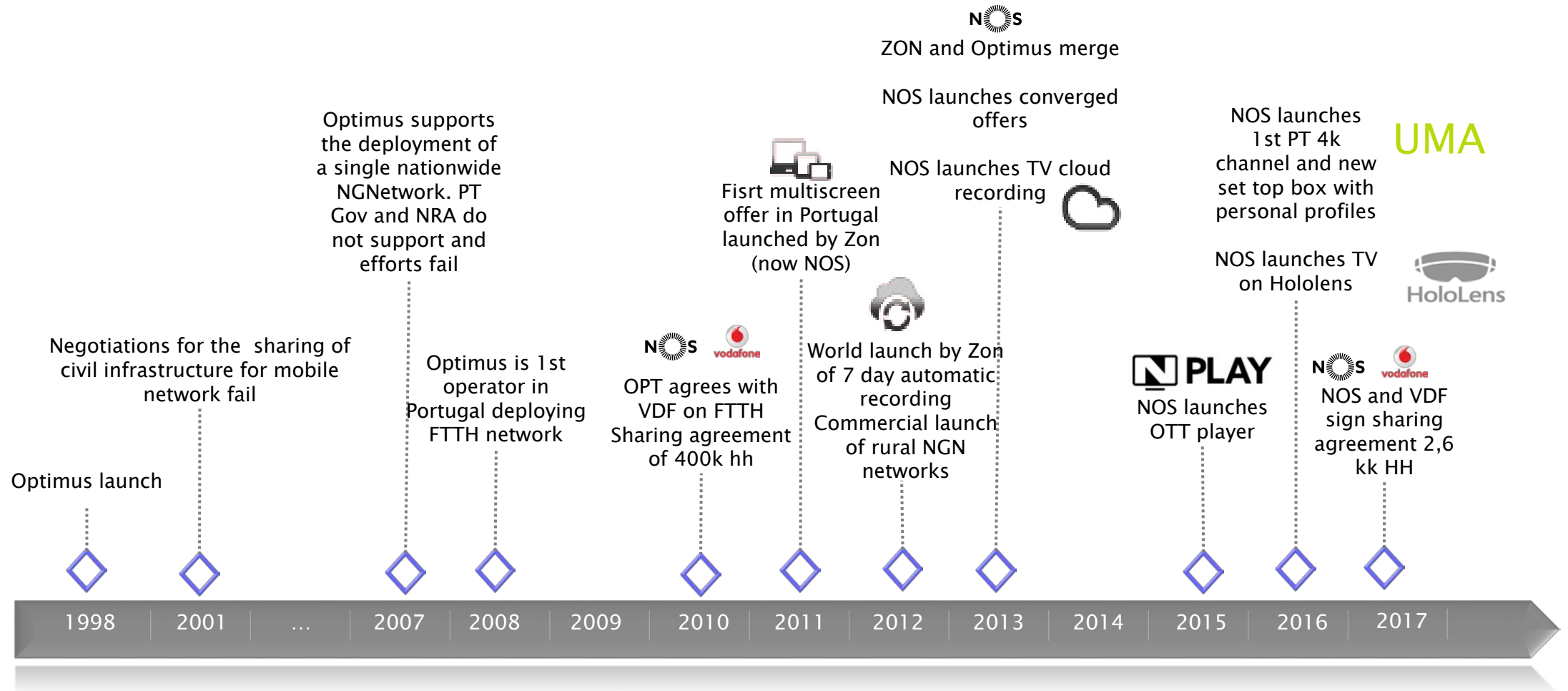
Source: Barclays Global Telecom

EBITDA (M€)



Source: NOS Annual accounts

How do we look at investment



How do we look at investment



NOS
(YE 2018 4,4M)

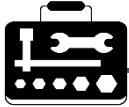
Own deployment NGA (FTTH/HFC) 2,85M HH	295k HH Wholesale access	1,3M HH – Co investment	~2 M HH – MEO Monopoly?
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Competition in fixed line PAY TV YE 2018

14% HH	49% HH	6%	31% HH
4 PAY TV operators	3 PAY TV operators	2 PTV	1 PAY TV operator

Regulatory/legal approach

<ul style="list-style-type: none"> Duct and pole access (SMP approach) Symmetrical obligations for vertical network (third party infrastructure not operator's) 	<p>Maintains duct and poles access (SMP) and symmetrical obligations for vertical network but adds</p> <ul style="list-style-type: none"> Co sharing agreements State aid for white NGA areas 	<p>Maintains duct and poles access (SMP) and symmetrical obligations for vertical network but adds</p> <ul style="list-style-type: none"> Co sharing agreements? State aid?
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Access Regulation

- Access to essential facilities (ducts and poles) is essential and should not be questioned
- Deregulation per se is not an investment lever. Only if all operators are in equal footing
- The existing SMP toolkit seems adequate to address the bottlenecks that exist



Co investment

- Co investment requires incentives alignment between involved parties
- NOS is skeptic of co investment that thus not result from commercial initiative of the parties involved
- However, when such co investment occurs, and has practical effect in the end user by increased retail competition, it should be recognized by the NRA in its SMP analysis

REGULATION CAN HELP BY CONSIDERING REAL CO-INVESTMENT AGREEMENTS ON THEIR SMP ANALYSIS. BUT SHOULD NEVER TAKE AUTOMATIC AND BROAD REGULATORY CONSEQUENCES OF THE MERE EXISTENCE OF AN AGREEMENT OR AN WHOLESALE OFFER THAT IS YET TO TRANSLATE IN ADDITIONAL COMPETITIVE BENEFITS FOR THE END USER.