

Industry Response Introduction—Wolfgang D. Bock

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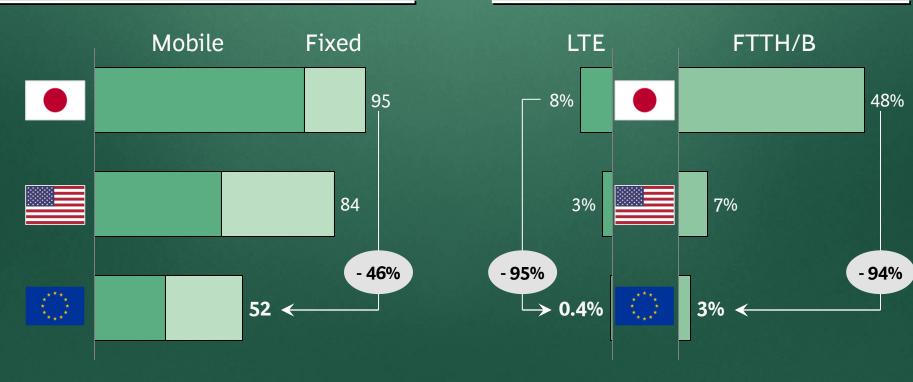
Key insights from BCG – ETNO report

Lower but slower: Telco most affordable in EU, but lags other leading nations in ultra-fast network rollout Shifting value: Value creation shifting from networks to digital services • EU network CAPEX on -3% p.a. slide, but growing elsewhere • EU digital eco-system grew 8% p.a., while network operators contracted by 3% p.a. • EU telcos delivering negative shareholder returns, in contrast to many global peers More investment needed: ~ €170B needed to achieve Digital Agenda targets and ensure full participation of ~ 100M EU households in digital economy Regulatory distortion: Root cause of the current situation is regulation of competition that preserves market inefficiencies Reform proposal: BCG identified five key interventions to unlock funds needed; requires concerted effort and higher ambition level i) De-regulation of fixed wholesale access ii) Healthy concentration iv) Spectrum policy modernization iii) Level OTT playing field v) Harmonized rules and procedures High stakes: Closing the investment gap can deliver up to 5.5M new jobs and €750B cumulated GDP growth by 2020

Lower but slower: Telco most affordable in EU, but lags other leading nations in NGN rollout



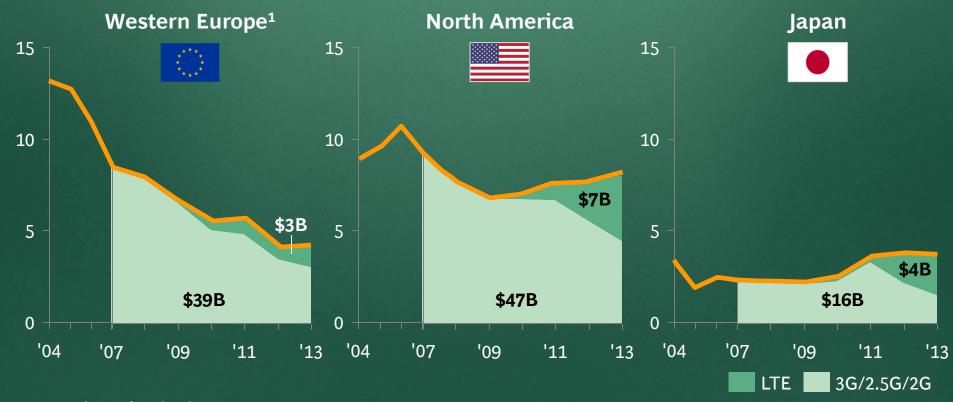
2012 LTE subscriber and FTTH/B household penetration (in %)



Note: ARPU—average revenue per user; ARPA—average revenue per account; FTTH/B—fiber-to-the-home/-building Source: Informa fixed- and mobile-broadband subscription forecasts, 2009–2017; IEMR Q3-2012; BCG analysis

EU network CAPEX on a continuous slide, but growing elsewhere—example Mobile

Mobile network equipment spend (in B\$)



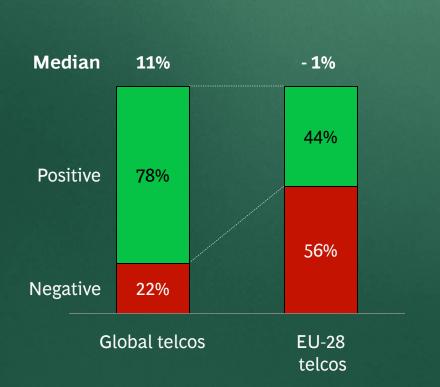
1. EU-15 plus Switzerland, Norway

Note: Includes investments in base stations and core infrastructure equipment; actuals until 2012, forecasts thereafter Source: World Economic Forum/BCG Project "Delivering on Digital Infrastructure" (ongoing); Gartner (Q2/2013); IEMR; BCG analysis

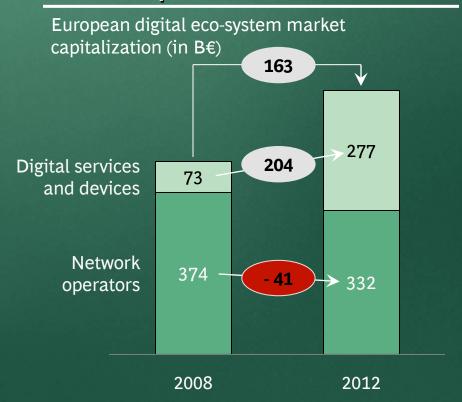
EU telcos delivering negative shareholder returns—value shifting away from network

EU telecoms with negative TSR in glaring contrast to global peers

Annualized TSR (Dec 2009-Dec 2012)



European eco-system growing, but value captured outside networks



Note: Total Shareholder Return: combines share price appreciation and dividends paid to show the total return to the shareholder expressed as an annualized percentage

Source: Compustat; BCG ValueScience Center; BCG analysis

More investment needed: ~ €170B gap to achieve Digital Agenda targets by 2020

Digital Agenda for Europe ("DAE") targets will be clearly missed ...

Households with access to fast broadband (> 30 Mbps)



target

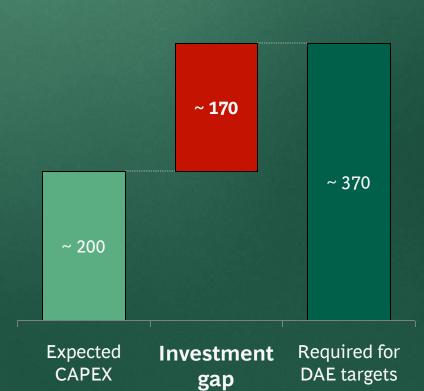
Households using





... if the €170B investment gap cannot be closed



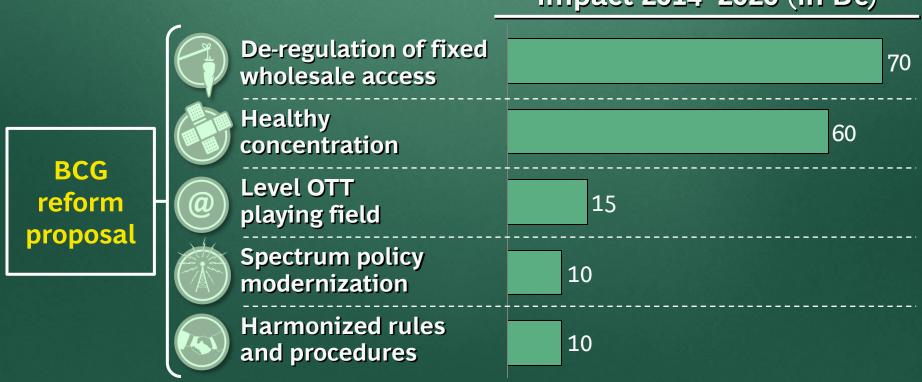


Note: Figures shown represent delta to worst case scenario

Source: BCG market model

Five key interventions to unlock funds needed; de-regulation and consolidation essential

Cumulated cash flow impact 2014–2020 (in B€)



Note: Figures shown represent upper boundaries of estimated impact range

Source: BCG market model

Current Draft insufficient—closing gap requires concerted effort and higher ambition level

Comparison to latest Regulation Draft of the EC



De-regulation of fixed wholesale access

Still to infrastructure renter and regulation focused



Healthy concentration

Potential market definition change not sufficient



Level OTT playing field

Good direction, but imbalances only partially addressed



Spectrum policy modernization

Right direction and actions



Harmonized rules and procedures

Single EU authorization does not unlock cross-country synergies

Only part of EC Draft

BCG

reform

proposal

International roaming and calls

Further reduces ability to invest; eases OTT competition more

High stakes: Closing the gap can deliver 5.5M new jobs and €750B cumulated GDP growth by 2020

€170B cum. invest

€750B
cum.
GDP



5.5M jobs

Note: Figures shown represent delta to worst case scenario; additional investment and GDP cumulated 2014 to 2020 Source: BCG market model

Thank you!

For further information or additional perspectives, please contact the authors





Wolfgang D. Bock

Senior Partner &
Managing Director
BCG Munich
Bock.Wolfgang@bcg.com



Peter Soos

Partner &
Managing Director
BCG Budapest
Soos.Peter@bcg.com



Maikel Wilms

Associate Director BCG Amsterdam Wilms.Maikel@bcg.com



Bjoern Roeber

Project Leader BCG Düsseldorf Roeber.Bjoern@bcg.com