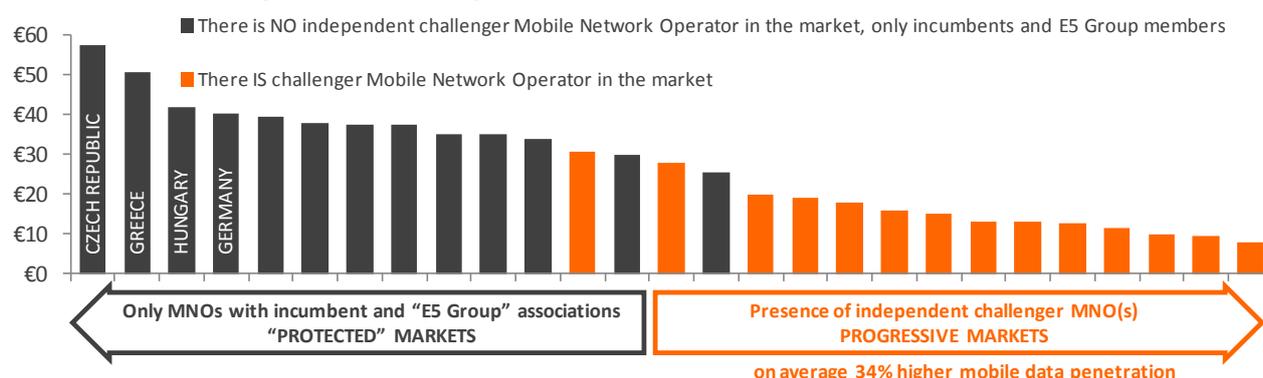


Rewheel EU27 smartphone tariff competitiveness report – December 2012

Telcogroups' protective pricing widens the digital divide between poor and wealthy EU member states

Report highlights

Lowest price in the member states for minimum 2GByte data allowance and 200 off-net minutes per month smartphone tariff



- Prices in member states with “protected” markets are up to ten times higher than in member states with progressive markets. European consumers need to pay between €8 and €78 a month to use their smartphones (2GB data allowance and 200 off-net minutes). Which EU markets are “protected” and why?
- In the most “progressive” markets with very high penetration smartphone tariff prices have converged to the general mobile ARPU levels. On the contrary in “protected” markets smartphone tariffs are priced by telcogroups beyond the reach of the average consumer (3 to 5 times ARPU). In which member states are smartphone tariff prices in parity with ARPU and which MNOs charge up to 5 times the market ARPU?
- Competition could only be ignited by the presence of “independent challenger” mobile operators. The lowest available price in member states where all MNOs belong to incumbent telcogroups or the “E5 Group” (Vodafone, Deutsche Telekom, France Telecom, Telefonica and Telecom Italia) is 140% higher than in member states where there is at least one independent challenger MNO.
- E5 Group MNOs do not drive price competition in markets where they are the challenger no.3 or 4 operators. E5 Group MNOs price at the same uncompetitive level (more than €40) both when they are the market incumbent (no.1 or 2) or the market challenger (no.3 or 4). Independent challenger MNOs price on average below €20.
- Further operator consolidation in Europe would most likely yield higher prices for consumers. The lowest available price in member states where only 3 MNOs are present is 46% higher than in member states having 4 MNOs.
- Telcogroups' protective pricing harms EU mobile internet adoption. The penetration of active mobile broadband users in member states where an independent challenger MNO is present is on average 34% higher than in member states where only incumbents and/or E5 Group members are present.
- Telcogroups' protective pricing widens the digital divide between poor and wealthy EU member states. In progressive markets of wealthier member states (e.g. Finland, Denmark, UK) consumers need to spend as little as 1% of their monthly net wage income to use their smartphones while in the “protected” markets of poorer member states (e.g. Czech, Hungary, Bulgaria) consumers need to spend a staggering 10%-17% of their monthly net wage income.
- In order to get much better visibility into the real competitive dynamics of the increasingly smartphone-centric mobile markets national regulators and the European Commission must start tracking mobile data consumption per capita next to mobile broadband penetration. This requires the reporting and tracking of mobile data traffic volumes of all MNOs present in a market. Such practice has been widely adopted in the EU's most “mobile data progressive” Nordic member states.

Disclosures

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1 Introduction – smartphone tariff competitiveness and social-economic development in EU member states

The digital transformation of economies and societies is one of the main drivers of economic recovery in EU member states. According to the European Commission's "Digital to-do list"¹ published in December 2012, the digital economy is growing at seven times the rate of the rest of the economy and in 2013 one of the top two priorities of Neelie Kroes, the European Commissioner for Digital Agenda is to maximize the digital sector's contribution to Europe's recovery.

The digital transformation, by enabling easy access to knowledge, information, services and markets allows for unprecedented productivity gains and opens entirely new opportunities to businesses, citizens and whole segments of the society, such as government, mass communications, art, or medicine. Ultimately the pace of the digital transformation will play a central role in determining the competitiveness of both the individual EU member states and the European Union as a whole.

Smartphones, thanks to their innovative user interfaces enabling instant and seamless internet access have become the primary personal vehicles of the digital economy. Moreover, thanks to their affordable prices compared to the purchase price of traditional desktop and laptop computers, smartphones carry the potential to bridge the digital divide between the wealthier urbanized societies and the poorer, more rural societies of EU's newest member states.

If smartphones represent the vehicles then we can regard smartphone tariff plans as the fuel of the digital economy.

As demonstrated by our research, there are alarming differences in the absolute price level and affordability of smartphone tariff plans across the EU27 member states. Moreover, our analysis shows that in the affected – mostly the poorest – member states high prices are already suppressing mobile internet adoption.

Increasing broadband penetration, mobile internet usage and narrowing the digital divide are among key priority actions in EU's Digital Agenda. In its push to create a single digital market EU has also recognized the importance of cross country mobile operator pricing and has set an ambitious target for the difference between the roaming and national tariffs to approach to zero by 2015. Although such convergence between roaming and national tariffs is required for the creation of a single digital market, it is not sufficient. For a single fully functional digital EU market price convergence on national "smartphone" tariffs must be also achieved across member states.

¹ http://europa.eu/rapid/press-release_IP-12-1389_en.htm

It is our conviction that unless European and member state authorities take the necessary corrective measures poorer member states which are mostly affected will underperform their wealthier peers in digital and overall economic competitiveness and growth.

The report is structured as follows:

- In Section 2 we describe the applied methodology in defining the targeted smartphone tariff basket and collecting the relevant data points from all 92 mobile network operators (MNOs) present in the EU27 member states
- In Section 3 we present selected macroeconomic and mobile industry metrics that we used in our analysis and which can be found in the subsequent sections
- In Section 4 we present the findings of an EU27 member state level price comparison, exploring the relationship of the price levels and the general macroeconomic metrics like member state Comparative Price Level (CPL) and general mobile industry metrics such as ARPU
- In Section 5 we dive one level deeper and look at individual MNO pricing as well as pricing patterns deployed by certain MNOs (e.g. challengers), MNO groups (e.g. incumbents) and MNO market share positions (e.g. no.3 or no.4)
- After the MNO level analysis, in Section 6 we return to the member state level and re-explore the EU27 member state price levels presented in Section 4 by highlighting this time the impact of the MNO group dependencies identified in Section 5
- In Section 7 we explore possible links between price level and mobile broadband penetration as reported in EU's Digital Scoreboard. Furthermore, we investigate the impact of price level on mobile data consumption per capita
- Finally, in Section 8 we explore the adverse impact caused by the presence of certain operator groups (i.e. E5 Group, Vodafone, Deutsche Telecom, France Telecom) on price level and mobile broadband penetration

Table 1: Analysis of key factors driving prices and penetration across the EU member states

Factor defining member state clustering rule	Cluster label	Average penetration	Average of lowest available prices	Average of average market prices	Average of average market price to ARPU %	Number of such markets
Average for all EU27 member states	EU27	xx%	€ xx.xx	€ xx.xx	xxx%	27
There IS Challenger MNO in the market	Ch+	xx%	€ xx.xx	€ xx.xx	xxx%	14
There is NO Challenger MNO in the market	Ch-	xx%	€ xx.xx	€ xx.xx	xxx%	13
There are less than 4 MNOs in the market	3MNO	xx%	€ xx.xx	€ xx.xx	xxx%	15
There are 4 MNOs in the market	4MNO	xx%	€ xx.xx	€ xx.xx	xxx%	12
Vodafone is present in the market	VF+	xx%	€ xx.xx	€ xx.xx	xxx%	11
Vodafone is NOT present in the market	VF-	xx%	€ xx.xx	€ xx.xx	xxx%	16
Deutsche Telekom is present in the market	DT+	xx%	€ xx.xx	€ xx.xx	xxx%	12
Deutsche Telekom is NOT present in the market	DT-	xx%	€ xx.xx	€ xx.xx	xxx%	15
France Telecom is present in the market	FT+	xx%	€ xx.xx	€ xx.xx	xxx%	9
France Telecom is NOT present in the market	FT-	xx%	€ xx.xx	€ xx.xx	xxx%	18
Vodafone is present and there are only 3 MNOs in the market	VF+,3MNO	xx%	€ xx.xx	€ xx.xx	xxx%	5
Deutsche Telekom is present and there are only 3 MNOs in the market	DT+,3MNO	xx%	€ xx.xx	€ xx.xx	xxx%	7
Both Vodafone and Deutsche Telekom is present and there are only 3 MNOs in the market	VF+DT+,3MNO	xx%	€ xx.xx	€ xx.xx	xxx%	4
MNOs belonging to the "E5 Group" are NOT present in the market	E5-	xx%	€ xx.xx	€ xx.xx	xxx%	8
MNOs belonging to the "E5 Group" are present in the market	E5+	xx%	€ xx.xx	€ xx.xx	xxx%	19
There is at least one challenger MNO and no "E5 Group" present	Ch+,E5-	xx%	€ xx.xx	€ xx.xx	xxx%	7
"E5 Group" is present and there is NO challenger	Ch-,E5+	xx%	€ xx.xx	€ xx.xx	xxx%	12

Source: Rewheel analysis

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About Rewheel

Rewheel is an independent strategic advisory specializing in data-centric transformation of mobile operators and markets.

We are headquartered in Helsinki, Finland and our main operating footprint is Europe.

Since 2009 we have advised over 10 European mobile operators, including independent challengers as well as Tier-1 OpCos, regulators, competition authorities, a number of private equity and institutional investors and various mobile-data centric start-ups.

Since the onset of the mobile broadband centric 900, 1800 and 2100 MHz license renewal avalanche in 2011 in Europe we have been providing strategy, spectrum valuation and auction theory advice (together with our world class CCA/SMRA auction theorist partners) to five European spectrum authorisation processes (operator or regulator side depending on country), including new entrants and acquisitions as well as license renewals in multi-band (typically 800, 900, 1800, 2100 and 2600 MHz) auctions.

Our advisors' knowledge, experience and insights cover all important aspects of successful data-centric mobile operator business models. Our typical advisory engagements are:

- Mobile-data centric operator business planning end-to-end
- Mobile data pricing strategies
- 3G/LTE mobile infrastructure development strategy and investment planning
- 3G/LTE mobile infrastructure procurement strategy, network infrastructure cost structure competitiveness benchmarking and optimisation (Rewheel is truly network vendor independent)
- Spectrum acquisition strategy and NPV valuation
- Industry expert advisory to policy makers, regulators and competition authorities

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