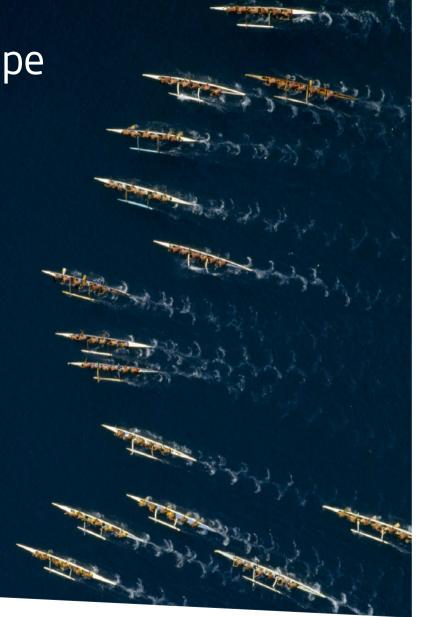
Mobile data, how is Telefónica Europe capturing this growth opportunity?

Deutsche Bank European TMT Conference

London, September 10th, 2010

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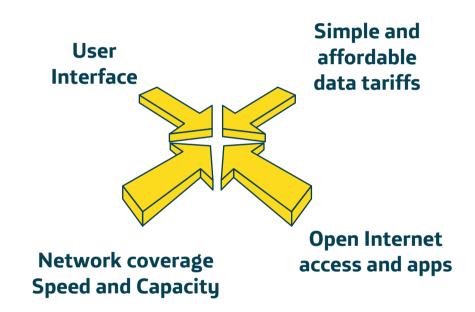
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1 Mobile data opportunity

T. Europe: ahead of the learning curve

Monetising mobile data growth

4 Conclusions

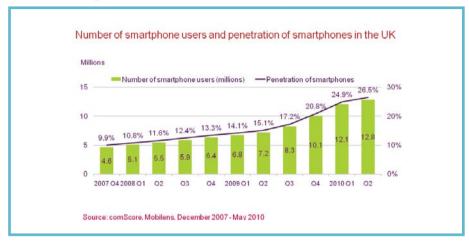


Mobile Internet barriers have fallen allowing for mobile data growth

1

As a result, the small screen data market has developed quickly

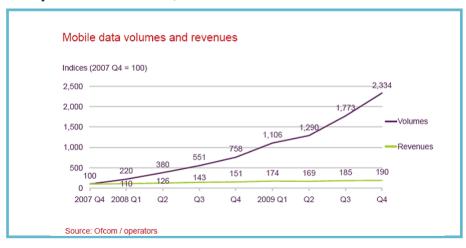
Growing penetration of smartphones



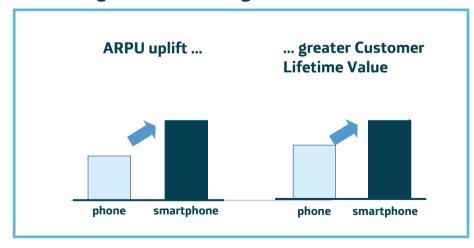
New & innovative players stimulating the market



Explosive demand, flattish revenue



Increasing customer average lifetime value



And we are now taking the right steps to profitably monetize this opportunity

Data capacity optimisation Increase number of sites Increase frequency carriers / site Reduce cost/Mbyte Use low frequency spectrum Gradual migration to LTE & FO **Traffic offload** Promote WiFi usage Selective Femtocell deployment Adapt offer to actual usage

Segment tariffs by usage profile



Telefónica Europe has gone up the learning curve, ahead of competition, leading to competitive advantages



Deep knowledge on how mobile data interacts with our network

Smartphones 3-4 times greater signalling activity vs. traditional phone



Data consumption quickly shifting to video

 One streamed YouTube video has the same effect on the network as 500K simultaneous SMS



Changing usage patterns: faster growth in late adopters

• Data volume doubling every 4 months



Data consumption is heavily concentrated

65% of data traffic comes from just 3% of data users

Telefónica O2 UK, a success story

"Home of the smartphone": the largest base with the lowest contract churn in the market

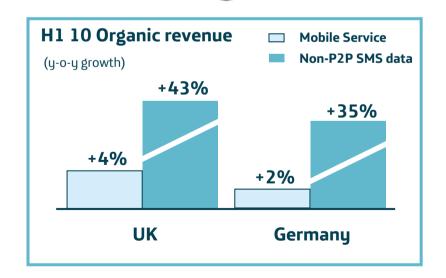
- Efficiently adapted network for voice & data
- The first to introduce tiered pricing which will lead to higher revenue and better customer experience for vast majority of customers
- Utilising UK knowledge throughout Telefónica and leveraging Telefónica scale



Telefónica Europe revenue opportunities are based on a new model

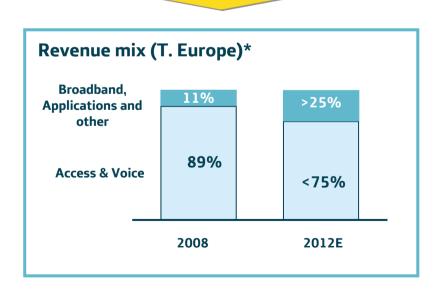
To date we have seen...

- Flat rates
- Low penetration levels
 - T. Europe reached over 8 m MBB accesses at June 2010 (+54% y-o-y)
- Pure access



But going forward...

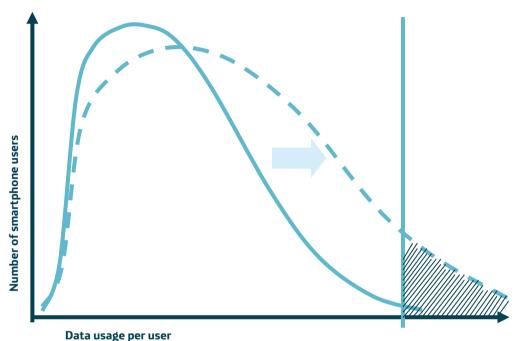
- Tiered pricing
- Increased penetration
 - T. Europe expects to reach 28 m MBB accesses by 2012
- Applications / advertising



^{*} Assumes 2008 constant FX (average FX) and excludes changes in consolidation



This has driven our decision to introduce usage based pricing, first in the UK



The first step to Tiered pricing, already an industry trend:

- Simple targeted propositions with different schemes to address customer needs
- Efficient management of service quality
- AT&T, Vodafone, TeliaSonera, ... already
 launching tiered mobile data offers

Data asage per aser

- Currently, 3% of users above 500 Mb, consuming the majority of data
- Further migration to smartphones in the customer base will continue to increase data usage and data usage per customer will continue growing

Data monetization will include a much greater proportion of customers over time

Capturing quality growth and maintaining already high levels of customer satisfaction

3

Smooth transition to mobile data centric networks, wider choice of spectrum and devices, also key to ensure profitable growth

| | Spectrum | Devices | Network equipment |
|----------|---|-------------------------|---|
| UMTS 900 | Ger: 2x5MHz UK: 2x17.4 MHz | Available in the market | Available for deployment |
| LTE 800 | Ger: 2x10MHz UK: Government revisits access to 800MHz for O2 & VOD | Dongles in the market | Telefonica trialling LTE in 6 countries including Germany and UK |
| LTE 2600 | Ger: 2x20MHz UK: Auction H2 2011E | Dongles in the market | Telefonica trialling LTE in 6 countries including Germany and UK |

4 Conclusions

- Surging demand for mobile data is the clear driver for future growth in the business
- Telefónica Europe has had a two year head start in the UK; a competitive advantage for the Group
- And we have a clear plan on how to profitably monetize this growth opportunity while improving customer experience

Telefonica