



European mobiles: is the data
opportunity big enough?

A financial market perspective

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- **Can European mobile revenues return to growth? Unsure despite data**
 - Revenues down 3.5% in Q3 due to voice (economy, regulation, competition)
 - Data adds ~2% to growth with potential for acceleration thanks to smartphones

- **Operators' role: the “efficient pipe+”**
 - Focus on Access & Enabler rather than Services or Apps
 - Data traffic not too explosive – Capex and LTE migration appear under control except in some countries

- **US benchmarking: not so positive for European mobiles**
 - Data market 40% more developed and contribution to growth 2-3x larger
 - However more upside on profitability in the US which remains more fragmented

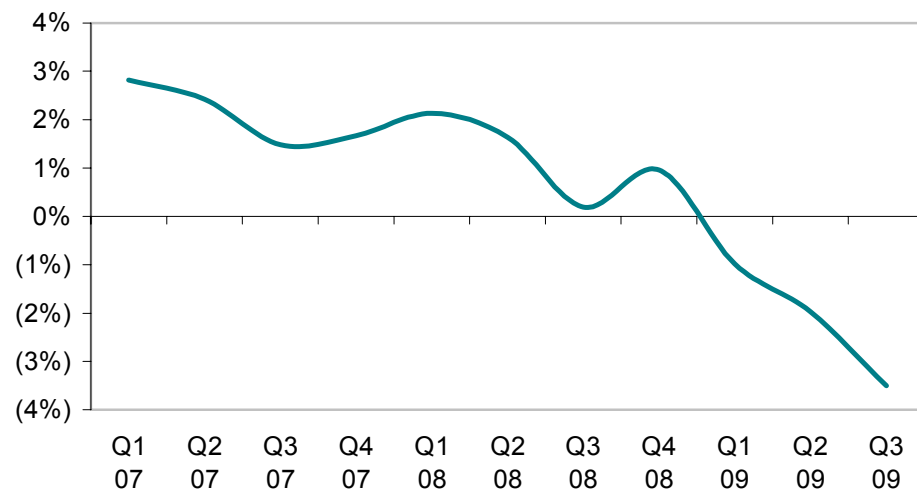
- **Can consolidation help?**
 - Limited room for local consolidation, uncertain risk/reward from global M&A

1. Mobile data, a key revenue driver

The context: mobile revenues deteriorating

- **European mobile revenues are down 3.5% yoy (Q3 09)**
 - Driven by voice revenues, down 8% yoy
 - A mix of structural issues (market maturity, regulation, competition) and cyclicity (impact of recession on roaming usage and business customers)
 - Investors' changing mood: they thought the sector was immune (Q4 08), then realised it was not (H1 09), then hoped for a rebound (Q3 09)

European mobile revenue trend



Vodafone relative share price performance



1. Mobile data, a key revenue driver

We expect voice to remain a drag

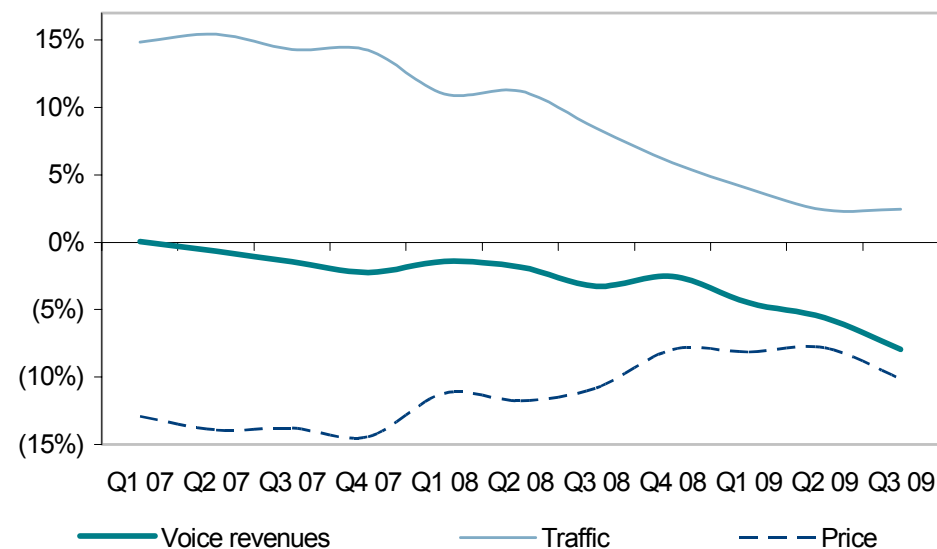
■ Mobile voice revenue decline: what are the drivers?

- Customer net additions have collapsed (penetration >120%)
- Voice traffic is now flat (+2% in Q2 & Q3)
- Average price per minute -10% yoy in Q3 versus -8% in Q2 due to further regulation (MTR, SMS roaming)
- During the downturn, operators have been disciplined on outgoing prices

■ What happens after the recession?

- Voice traffic should reaccelerate: we estimate to +5/+7%
- But we still expect -5% on voice revenues due to renewed price pressure
- Regulation, competition, VOIP threat...

Voice revenue drivers

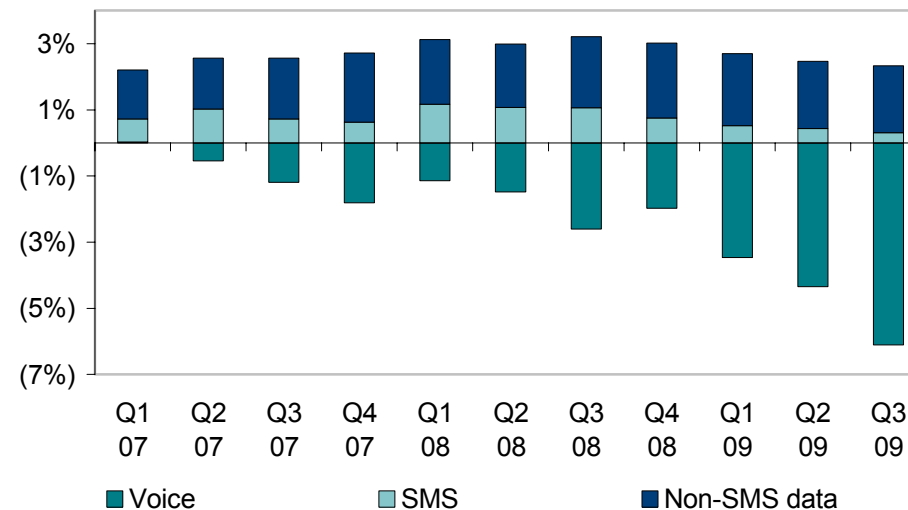


1. Mobile data, a key revenue driver

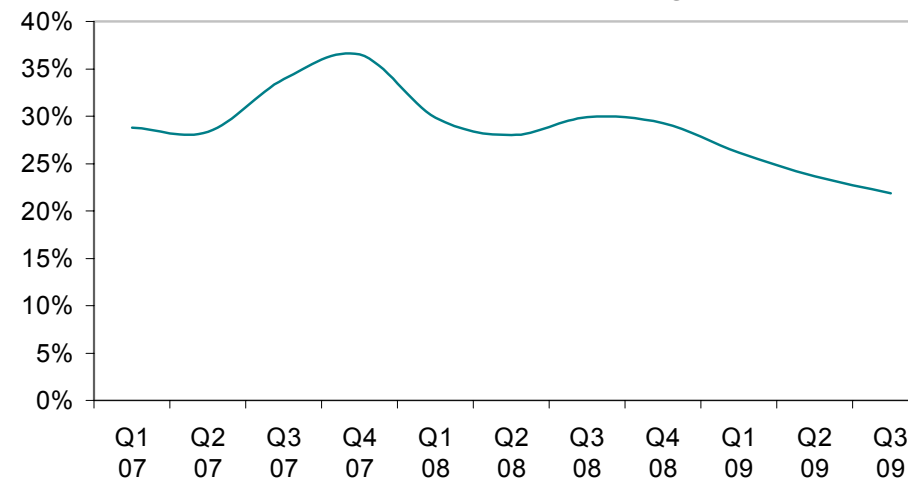
The only bright spot in Europe

- **Non-SMS data increasingly essential**
 - SMS is maturing (+2%), could decline
- **Significant revenues, growing well**
 - Non-SMS data ARPU = EUR3.0/month
 - 12% of total ARPU, almost as big as SMS
 - Resilient revenue growth (+22% in Q3), boosting the sector by ~2%, since H2 07
- **Two drivers**
 - Mobile Internet – Smartphones
 - Mobile broadband – Dongles
- **Potential for acceleration?**

Contribution of voice, SMS and data



Non-SMS data revenue growth



1. Mobile data, a key revenue driver

Dongles

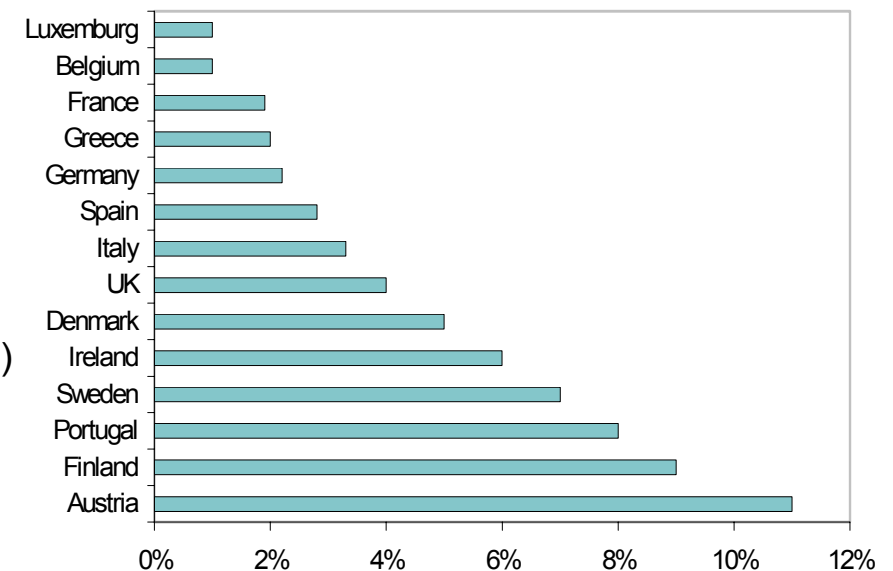
■ Varying local situations

- Started to accelerate two years ago
 - High laptop penetration, HSDPA networks ready, cheap HSDPA-enabled USB sticks
- Varying pace of growth in different countries
 - Austria: population penetration now ~13% but most large countries below 5%
 - Penetration growth of ~2% yoy on average
- Competing or complementing fixed broadband?
 - Austria: head to head competition
 - UK: ¼ of mobile BB users are mobile-only (Ofcom)
 - France: sold as a complement to triple-play

■ Contribution to revenue growth 0.5-1.5% (e)

- Based on ARPU range of EUR5-30/month
- Limited revenue acceleration potential
 - Complement rather than substitute to fixed
 - We expect a relatively low ARPU (prepaid, add-on)

Mobile broadband % of pop. (Q4 08)



1. Mobile data, a key revenue driver

Smartphones

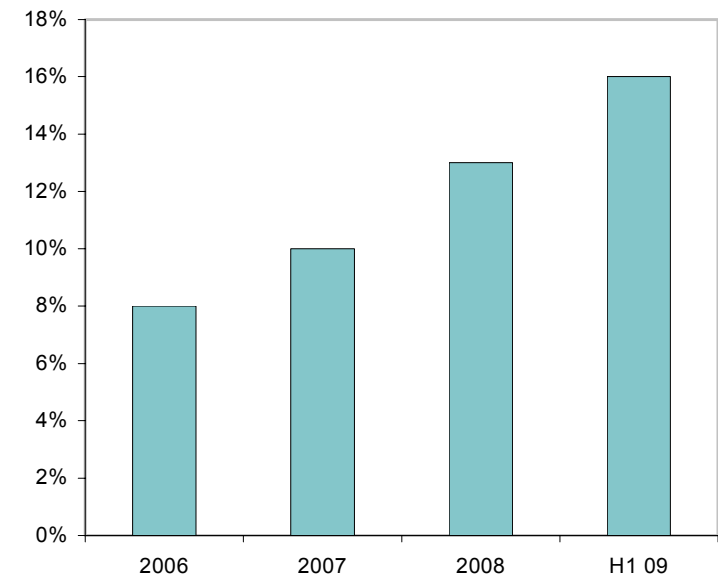
■ iPhone changed the game

- 3G handsets penetration did not help revenues
- Apple's double impact on the handset market
 - Direct: strong & growing sales of iPhone
 - Indirect: boosting the market (quality & quantity)
- Smartphones a growing share of handsets sold...
 - Worldwide = 16% in H1 09, up from 13% in 2008
 - Vodafone Europe = 20%, targets 30-40% next year
- ...finally driving usage and revenue growth
 - UK: 16% of adults accessed the Internet on their mobile in Q1 09 (Ofcom)
 - Only ~10% of customers pay a data bundle
 - Vod. Europe mobile Internet rev. +30% yoy in H1

■ Current contribution to revenue growth ~1% (e)

- Acceleration potential with smartphone sales
- Need to monitor incremental ARPU versus incremental subsidy

Smartphone sales % of handsets



■ A large & 'simple' opportunity on mobile Internet access

- US benchmark: mobile data = EUR8.4/pop. per month, +40% versus Europe
- If captured in four years, could add 2% to the sector's top line
- In line with operators' core competencies

■ Services: for operators, it's not worth it

1. A myriad of services

- Digital content: music, video...
- Personal communication: contacts, social networks...
- Maps, location-based services
- Applications...

>> Each is small versus operators' revenues

2. Different business models

- Pay-by-click
- Subscription
- Advertising

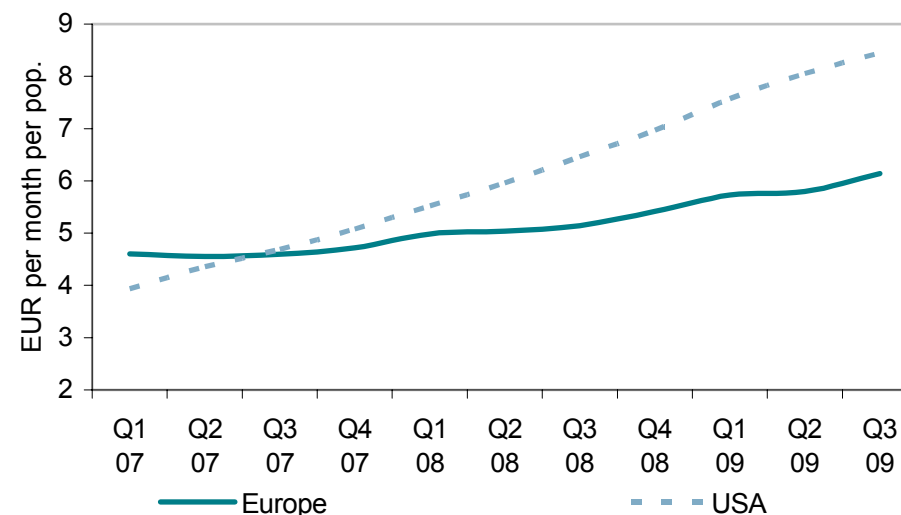
>> More complex to handle for operators

3. Many new competitors with established brands

- Web/software players
- Hardware players
- Content owners
- ...

>> Operators' market share will be small

Total mobile data revenue per pop.



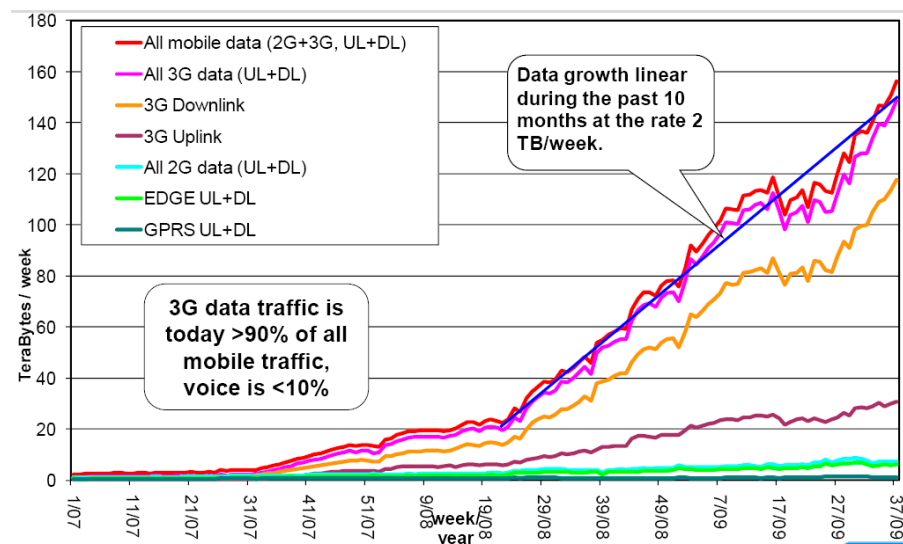
- **Opportunity to become “enabler” of 3rd party services & applications**
- **Potential for operators to leverage their specific assets**
 - Billing Yes, although advertising and iTunes are partial alternatives
 - CRM capability Yes
 - Location data Limited: GPS provides location data to handsets
 - Large reach Limited: software & hardware giants have a larger reach
- **Revenue impact?**
 - Direct revenue opportunity impossible to assess (a fraction of the services’ market)
 - Clear indirect benefit as more services will drive take-up, hence access revenues

3. Will networks handle it? *Is traffic growth strong or explosive?*

- **Mobile data traffic x2-4 yoy**
 - Most recent data points closer to 2x (Elisa, Tele2, Vodafone)
- **Growth in devices will go on**
- **What about growth in traffic per device?**
 - (+) User-friendliness (touch, new interface, attractive apps)
 - (+) Macro trend (rise of video like on fixed broadband)
 - (+) Device mix (dongles to drive >80% of data traffic)
 - (-) Pricing: capping the “unlimited” tariffs
 - (-) Dilution by new users beyond the early adopters

Mobile data traffic growth at European operators

| Company | Country | Reference period | YoY growth in mobile data traffic | Traffic per device (Gb/month) | YoY growth in traffic per device |
|----------------|---------|------------------|-----------------------------------|---------------------------------------------------------------------|----------------------------------|
| T-Mobile | Europe | H1 09 | x2.81 | n/a | Grow ing |
| Elisa | Finland | Sep-09 | x1.65 | 2.0 | Stable |
| TeliaSonera | Nordics | Q2 09 | x3.75 | 1.0 | Grow ing |
| Tele2 | Sweden | Sep-09 | x2 | iPhone: 0.2 dongle: 1.0 | - Declining |
| France Telecom | Europe | FY08 | x5.5 | iPhone: 0.25 residential dongle: 0.8 business dongle: 0.5-0.6 | Grow ing Grow ing n/a |
| Vodafone | Europe | Q3 09 | x1.67 | n/a | n/a |
| Ericsson | | | Strong growth | n/a | Grow ing |



Source: Elisa

3. Will networks handle it? Core scenario: capex seems under control

- **In core scenario, current capex level (~11% of sales) seems sustainable**
 - Many “cheap” options: switch-on carriers, HSPA upgrades, WiFi, femtocell, cell splitting...
 - ...before switching to more expensive options (new spectrum, LTE)
 - Core scenario assumes linear growth in traffic per device (circa x4 by 2015e)
- **However, capex risk if continued exponential traffic growth**
 - Risk higher in countries with rapid dongle adoption: Austria, Nordics, UK, Portugal
- **LTE rollout: will start in 2010, full scale adoption from 2013-2014**
 - Important hurdles to overcome: handset availability, spectrum allocation
 - Large operators see no “capex bump” but some Nordic operators do (e.g. Telenor)

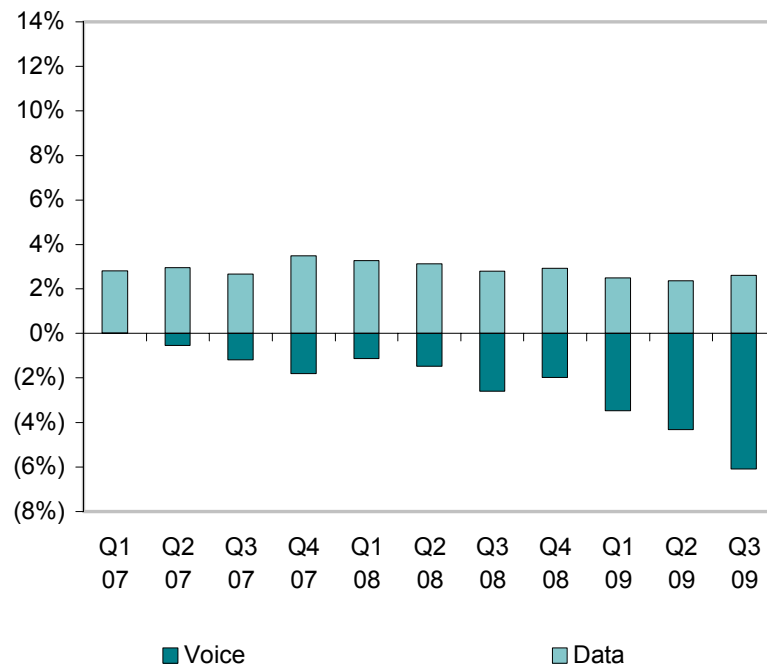
| Country | Company | Expected 4G launch | Comments |
|-------------------|----------------|--------------------|----------------------------------------------------------------------------|
| Sweden, Norway | TeliaSonera | 2010 | Launch in Oslo and Stockholm in 2010 |
| Sweden | Tele2, Telenor | End 2010 | 4G network JV between Tele2 & Telenor; Initial product = mobile broadband |
| Europe | Vodafone | Late 2011 or 2012 | Makes a lot of sense to push HSPA upgrades to the maximum first |
| France, UK, Spain | France Telecom | 2012 | Rollout starting in 2011, real growth not before 2013 |
| Finland | Elisa | No yet decided | Focusing on a wide rollout of HSPA900, LTE is a “heavy investment” |
| Europe | Ericsson | 2010 - 2013/2014 | Will start in 2010 in some countries but will grow in earnest in 2013-2014 |

4. Europe versus US Q3: US market +3%, Europe -3.5%

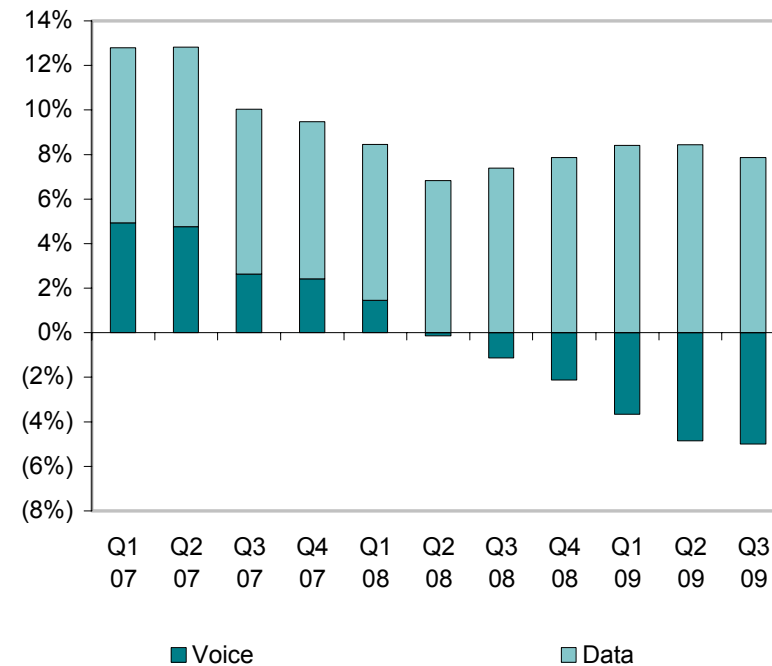
- **Voice revenues have historically grown more in the US**
 - Penetration catch-up
 - This seems over: trend now similar to Europe (recession, competition)

- **The US is now leading thanks to data: contribution 2-3x larger**
 - Smartphones = 40% of handsets sold by Verizon Wireless in Q3 09
 - Leaders' data bundles \$30/month

Voice & data contributions – Europe



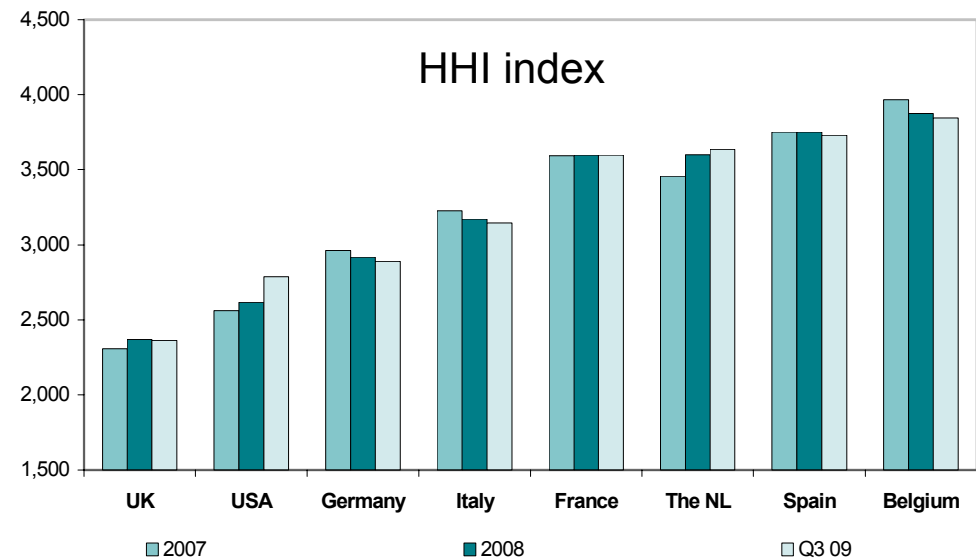
Voice & data contributions – USA



4. Europe versus US *US still less profitable & more competitive*

- **Similar revenue ~EUR30/month/pop**
- **The European mobile market remains more profitable**
 - EBITDA margin 36% vs 32%
 - Capex/sales 11% vs 13%
 - Post-tax ROIC higher ~20% vs ~15%
- **Different usage/price patterns**
 - Price per minute 0.11 vs 0.05
 - Voice usage (MOU) 165 vs >800
- **Regulation hitting European voice**
 - MTR: large direct & indirect impacts
 - Virtually no MTR in the US
- **US ops. differentiate on network**
- **Geographic & cultural differences**

- **Different competitive dynamics**
 - US still more fragmented than most European markets
 - US concentrating via consolidation and leaders gaining market share

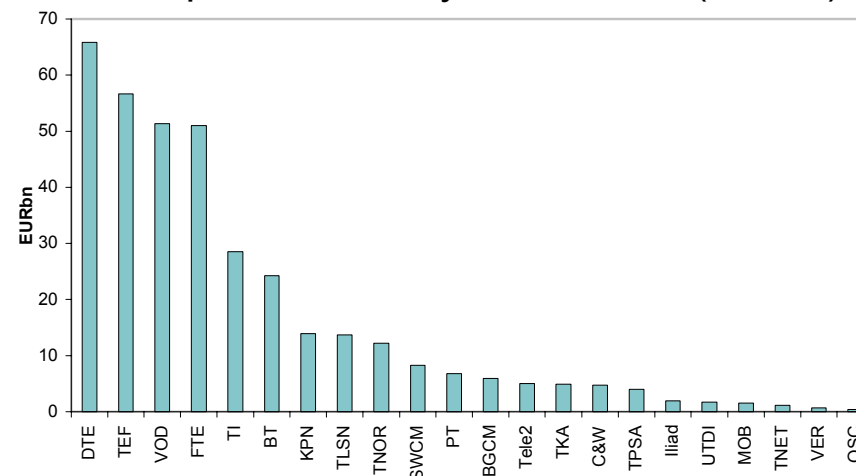


- **Conclusion: still upside in the US and downside in Europe?**

5. Preparing for the new world *Towards European consolidation?*

- **In-country consolidation?**
 - Rationalising competition, optimising costs – Evidence in the Netherlands
 - But after the UK, not many opportunities: most European markets highly concentrated
- **Pan-European consolidation?**
 - Limited benefits on the core “pipe” business
 - Benefits on position in the value chain?
 - Bargaining on hardware, handsets, content, software, applications, advertising, etc. with global leaders such as Google, Nokia, Microsoft, Apple...
 - Small telcos say that large telcos have more bargaining power with global counterparts
- **Investors buy the targets (cf. KPN chart)**
 - Cautious on potential acquirers (DTE, FTE, TEF, VOD): execution risk > benefits

European telcos by conso. rev. (2009e)



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