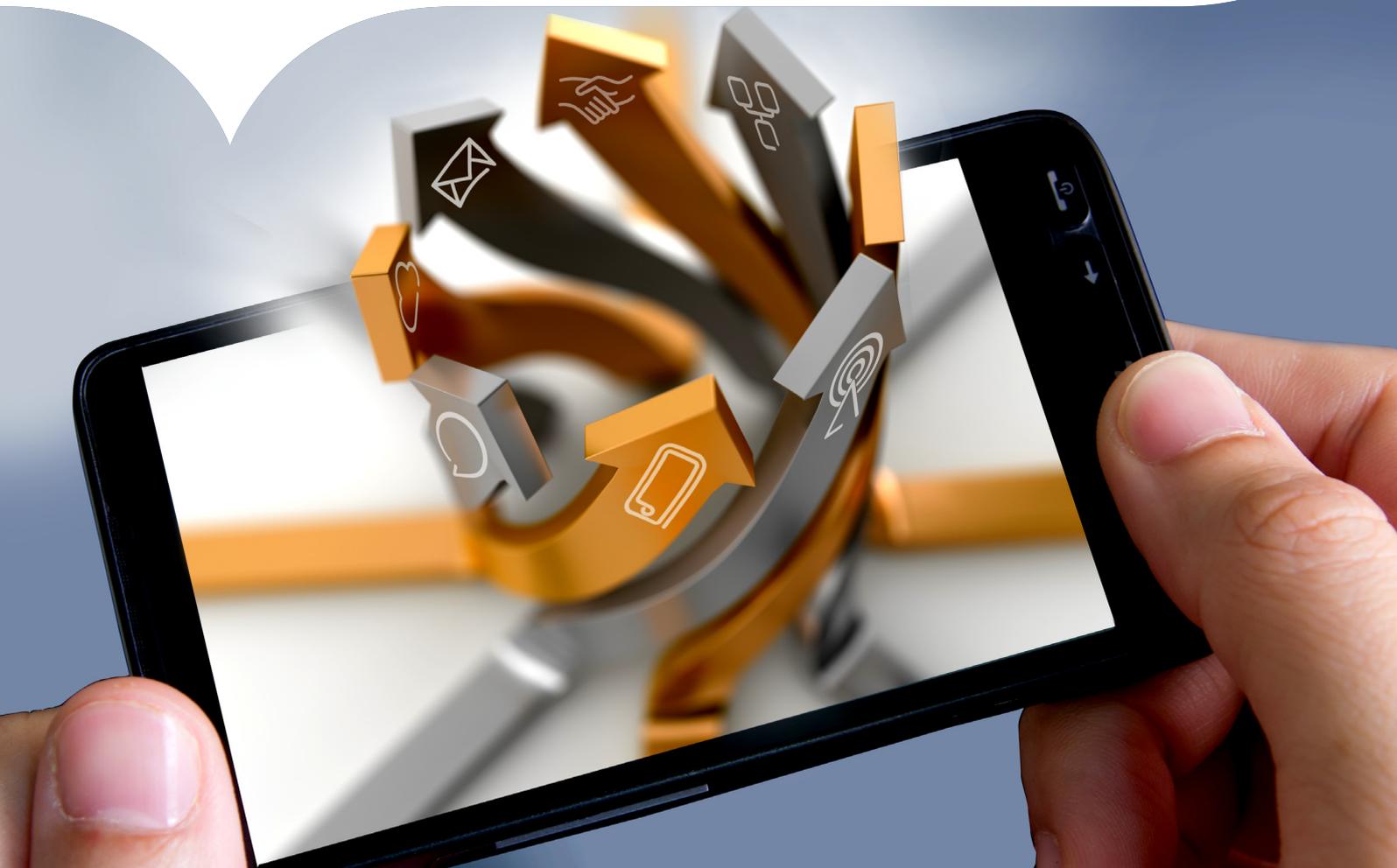


Communications Industry: On the verge of **massive consolidation**

As the US are entering into a likely final phase of consolidation, Europe is engaging into a series of M&As which will be a major characteristic of the communications market for the next 10 years.





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“As of 3 July 2014, as many as 79 deals with a total deal value of US\$ 230 billion have already been announced. Of these more than US\$ 100 billion are announced in various European markets.

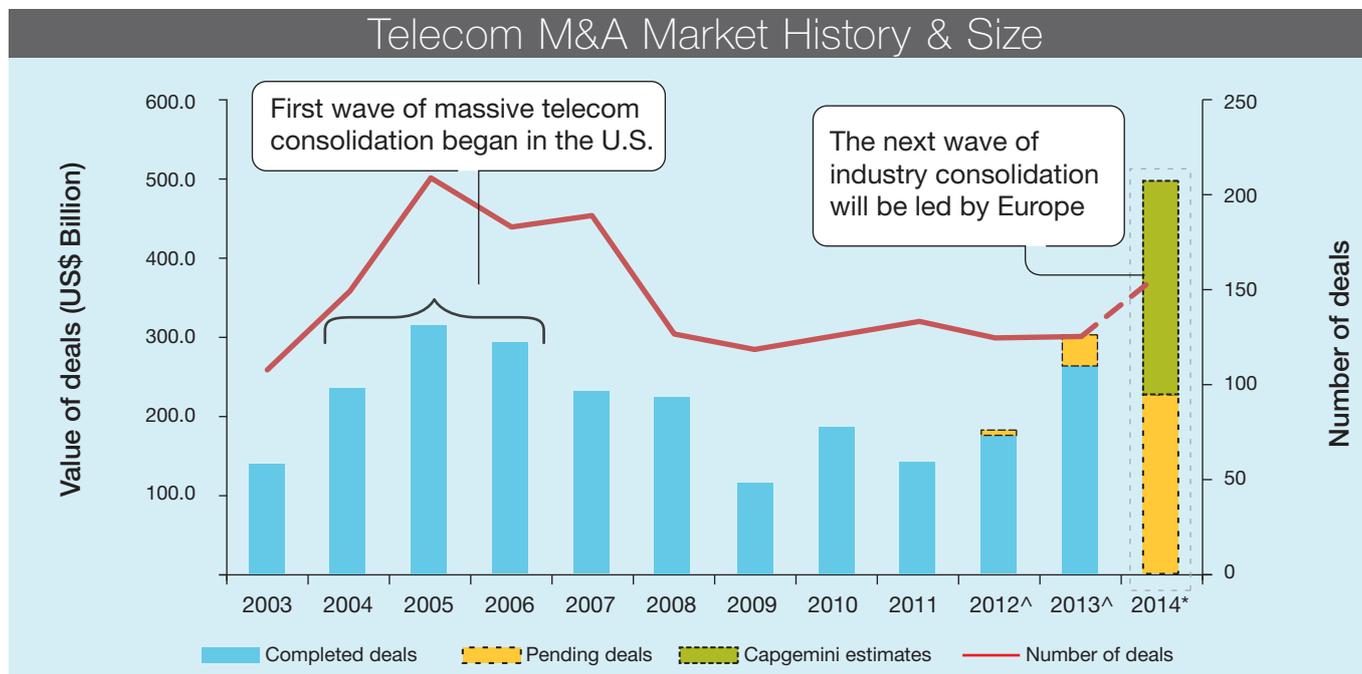
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Introduction

In the recent past, the communications industry has been announcing several M&A initiatives at an unprecedented pace, with a mix of both large multi-billion dollar deals, and smaller operations. As there are several structural drivers underpinning this consolidation move, we – as many of our peers – anticipate that by 2020 the global communications services providers¹ (CSPs) landscape will see a spectacular change. The communications market in the US would likely be dominated by three major operators, while Europe would have seen a significant part of its consolidation journey around a handful of European and non-European aggregators.

While this may seem like an old story for the communications industry, we have to be mindful about the first consolidation wave that began in the US in 2004 (i.e. 20 years after the disbanding of the AT&T monopoly) and resulted into the four-major-operator landscape of today. The industry in the US is now entering into a further, probably final, stage of consolidation. With Verizon already consolidating through the buyout of its ownership from Vodafone, other industry behemoths will soon follow suit. Already the recent moves by the top industry players – Comcast with its intended acquisition of Time Warner Cable and AT&T with its US\$49 billion offer to acquire DIRECTV – indicate that the consolidation wave in the US is heading for a conclusion.

¹CSPs include telecommunications carriers, cable service providers, satellite broadcasting operators and communication service providers over internet



Source: Bloomberg accessed on 4 July 2014, Capgemini TME Lab Analysis

* Data for 2014 is until 3 July 2014; the data for 2014 exhibits completed and pending deals; the data for 2014 is annualized to show the potential for more consolidation in current year.

[^] Data for 2013 and 2012 exhibits pending deals in addition to completed deals

Year as per announced date of the deals. Based on deals where acquirers OR sellers OR targets are telecommunication service providers and have disclosed deal values greater than US\$ 100 million

A new wave of consolidation – this one is going to be massive – is also building up on the European shores. Deal proposals in several key markets in the recent past, improving market conditions and changing regulatory mindset strongly indicate that a strong wave of M&A activity in the telecom sector is about to be unleashed. In the deals announced or completed so far it is clear that major telecom operators have plenty of appetite to consolidate.

From a global standpoint, as of 3 July 2014, as many as 79 deals with a total deal value of US\$ 230 billion have already been announced. Of these more than US\$ 100 billion² are announced in various European markets.

From this point on, we strongly believe that the deal activity is going to see still stronger action. We estimate that in 2014 alone, the total number of deals and total deal value is going to double. We expect this trend is going to continue over the next decade, where most of key European operators would have an “X-to-three-operator play, i.e. most of the national markets will have a three operator landscape.

The drivers for consolidation

With the focus on minimizing costs to reduce impact on margins, operators will be increasingly inclined towards consolidation as a strategy to overcome challenging market conditions.

Apart from possible cost saving, there are other factors that are fueling consolidation among European telecoms. These include attractive valuations, availability of debt at low interest rates, and the willingness of more and more banks to underwrite huge amounts of debt to ensure that deals get through.

Mobile operators in Europe are looking to augment their service offerings by acquiring fixed line or cable operators that would enable them to offer quad-play services, whose uptake has been increasing in Europe. The quad-play offering would enable the operators to lower the churn and thus, reduce customer acquisition costs in a saturated mobile market. As a result, the European telecom market is witnessing greater consolidation between mobile and fixed/cable operators.

Beyond the above objectives, one of the key drivers for this renewed zeal and optimism is the improving market environment which will see a steady stream of investments in the foreseeable future. This, in addition to the changing regulatory mindset is expected to unshackle the over-regulated business environment.

Even though regulators in each region are faced with a challenge identifying the number of operators that can optimally serve the market, the situation in two key markets - US and China - indicate that scale is the fundamental driver for the next generation telecom operations. The US has, as mentioned earlier, re-consolidated their industry in the past 10 years to four players, who together control 90% of the market. China has done well to develop a strong telecommunications services market with three national operators that serve more than one billion subscribers.

In comparison, while a majority of the subscribers in Europe are served by the four biggest providers - Telefónica, Vodafone, Deutsche Telekom and Orange – the European market is very fragmented with over 100 fixed and mobile operators which in turn owns dozens of companies.

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²Deals included proposed, pending and completed deals

In developing markets, regulatory uncertainty and a strong competition is driving ARPU³ to unsustainably low levels and thus preventing large global telecom operators from entering such markets. However, in countries like India, revised M&A guidelines and spectrum policies is likely to spur consolidation in the telecom market that has more than 15 operators currently.

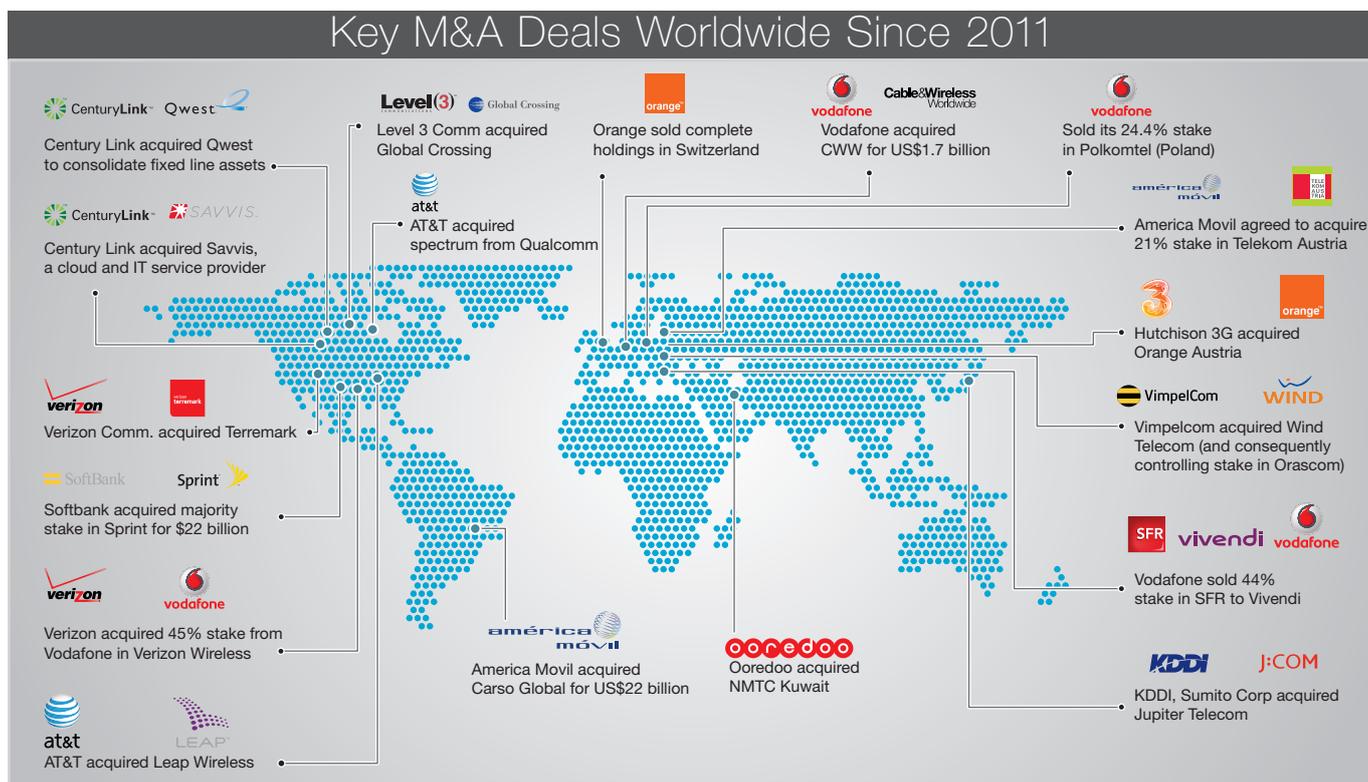
Overview of recent and on-going M&A deals

A large majority of the high-value telecom deals completed over the past year, or which are in the pipeline, are in the US. These include Verizon's agreement to buy Vodafone's 45% stake in Verizon Wireless for US\$130 billion in one of the largest telecom deals globally. In the country, leading telecom operators are consolidating their position in the market as exemplified by AT&T's acquisition of Leap Wireless and T-Mobile's acquisition of MetroPCS. Japanese operator SoftBank entered the US telecom market by acquiring Sprint for US\$21.6 billion with the promise of innovation in mobile service pricing and device offerings, will give customers more options for mobile services. Not only that, SoftBank is also planning to acquire T-Mobile US for US\$32 billion⁴ to consolidate the market further and pose challenge to the leaders AT&T and Verizon.

³Average Revenue Per User

⁴"Sprint agrees to pay about \$32 billion to buy T-Mobile: source," 5 June 2014, Reuters; <http://www.reuters.com/article/2014/06/05/us-tmobil-sprint-corp-idUSKBN0EF2DG20140605>

AT&T's proposed US\$48.5 billion takeover deal for DIRECTV would merge the second-largest US mobile operator with the biggest US pay-TV provider, aimed at accelerating the convergence between video distribution and high-speed wireless.



Source: Capgemini TME Lab Analysis, Bloomberg, Company Press Releases

It would enable AT&T to offer a full range of TV, mobile, phone and broadband services for consumers to get content anytime, anywhere. AT&T's proposed deal of DIRECTV followed Comcast's US\$45.2 billion agreement to buy Time Warner Cable that will form an even larger cable provider, underscoring the need for national scale.

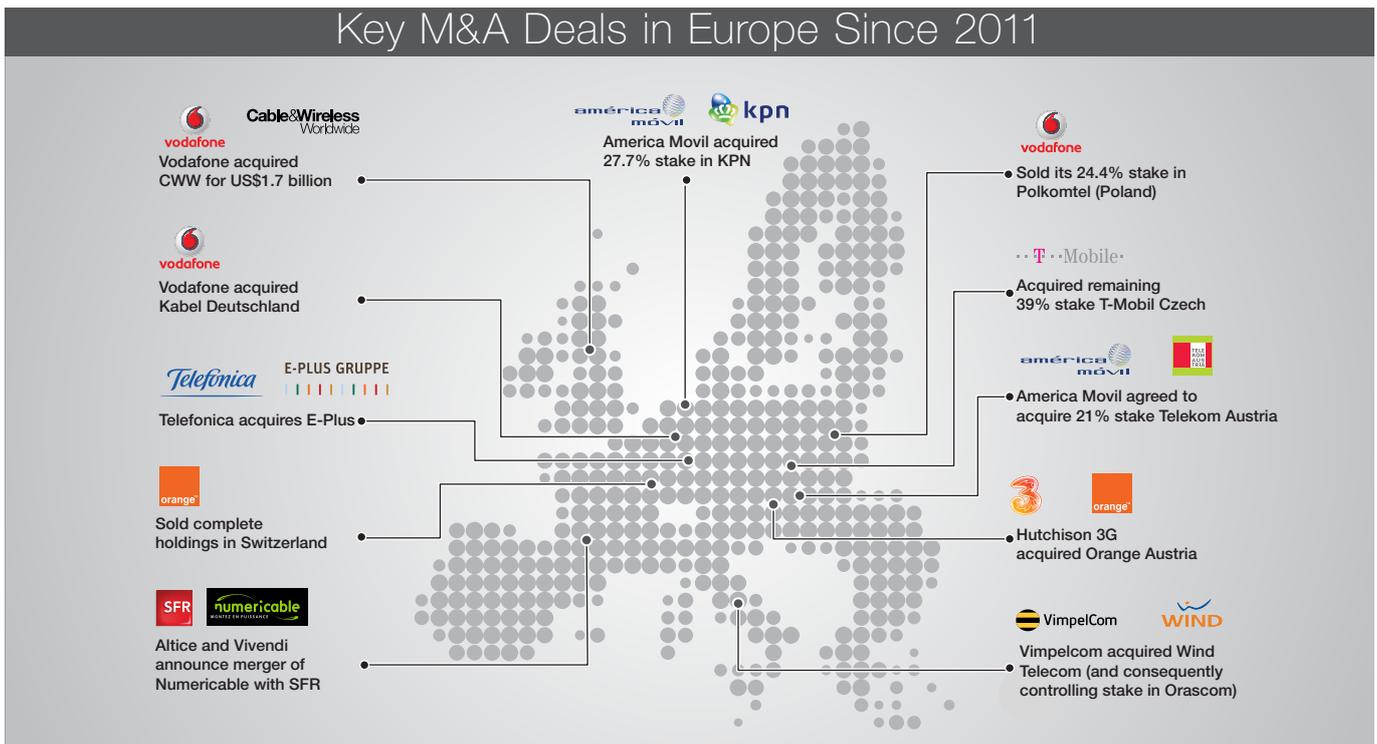
Currently, the US is leading the global trend of consolidating to a three/four operator market; in the country, four operators together control as much as 93% of the market.⁵ Further, smaller fixed-line players in the US have merged to reduce cost and increase scale as wireless substitution over the years has accelerated their revenue decline.

On the European side, large operators have been consolidating their positions across various regions and focusing primarily on markets in which they are the leaders – a trend illustrated by the numerous M&A deals taking place across Europe since 2011.

Actually, there have been early signs of such a consolidation move in Europe already several years ago. The inflection point came in 2007, when Orange sold its Dutch mobile operation to another market incumbent Deutsche Telekom (T-Mobile), which consolidated the market in The Netherlands from four to three mobile network operators (MNOs).

Later in 2009, Everything Everywhere (EE) was formed in UK with this necessity as Orange and Deutsche Telekom (T-Mobile UK) merged their respective UK ventures in this new entity. This deal resulted in four MNOs instead of five in the UK. These deals were followed by a number of other deals in Europe as operators began consolidating their positions within each European country. For instance, Vodafone sold its non-controlling stake in SFR to Vivendi in France and divested its 24% stake in Polkomtel in Poland. Similarly, Deutsche Telekom acquired the remaining 39% stake T-Mobile Czech.

⁵6 years after the iPhone launched, just 4 big carriers are left standing," 8 July 2013, Venturebeat; <http://venturebeat.com/2013/07/08/iphone-carrier-consolidation>



Source: Capgemini TME Lab Analysis, Bloomberg, Company Press Releases

Note: Includes completed, pending and proposed deals. This compilation does not include rumored or unclear deals

Much like the US, there are three dominant players in a country with comparable market shares, with the fourth operator often being the operator with a weak presence. With favorable regulation, more countries are likely to have a three operator market

Market fragmentation, customer concentration, and weak economic conditions have always been present in some areas in Europe. However, M&A activity in the telecom sector has traditionally been stifled by the regulatory burdens imposed by 28 national telecom regulators, 28 national competition regulators, and the European Commission.

European telecom operators continue to discuss with regulators the merits of greater scale for profitable rollout of network upgrades and improved services that will ultimately benefit the consumer. Hutchison's 3G and Orange Austria's merger deal got conditional clearance from the European Commission's antitrust department. This has led to an increased possibility of similar "four-to-three" mergers across Europe.

Much like the US, there are three dominant players in a country with comparable market shares, with the fourth operator often being the operator with a weak presence. With favorable regulation, more countries are likely to have a three operator market. Already the markets of – Austria (A1, T-Mobile Austria, 3), Germany (Deutsche Telekom, Vodafone, E-Plus+O2⁶), Netherlands (KPN, Vodafone NL, T-Mobile), Switzerland (Swisscom, Sunrise, Orange), and Portugal (MEO, Vodafone, NOS) – have a three operator play. Other prominent markets including Denmark, France, UK, Spain and Italy are likely to witness the "four-to-three" consolidation scenario.

Larger telcos in Europe continue to acquire and consolidate their assets in Europe. Vodafone has stepped up its M&A activity, post its US\$130 billion stake sale in Verizon Wireless. Vodafone acquired German cable operator Kabel Deutschland for US\$10.1 billion and followed it with US\$10 billion acquisition of Ono in Spain that will strengthen its fixed network holdings. For Vodafone, acquisitions of Ono and Kabel Deutschland will enable them to offer mobile, fixed broadband and TV subscriptions in a quad-play bundle.

Majority of the larger deals in Europe are by telecom operators that aim to offer combined fixed, mobile and Internet services. Some of these deals have passed regulatory scrutiny, while some others are awaiting approval. For example, Telefónica Germany's acquisition of KPN owned E-Plus has been under European Commission scrutiny, which anticipates lower competition in the German market post the acquisition. Also, Liberty Global's planned US\$9.6 billion acquisition of Dutch cable operator Ziggo has to pass EU's merger laws as Ziggo is the largest cable operator in the Netherlands, and Liberty already owns UPC, the second largest cable operator.

Fixed-line carriers with solid backbone networks attract operators that need to expand their data transport capacity and enhance their enterprise offerings in their core markets. This was the reason behind Vodafone's acquisition of Cable & Wireless Worldwide or Deutsche Telekom's purchase of GTS in Central Europe.

Weighed down by profit-crippling price wars and regulations that threaten to further erode margins, European operators also offer some of the world's best takeover values.⁷ Latin American telecom operator America Movil entered Europe by acquiring 27% stake in Dutch telecom operator KPN and also through a 21% stake in Telecom Austria. AT&T, which was long interested in acquisitions in Europe, is rumored to be interested in buying Vodafone.

⁶On July 23, 2013, O2 and E-Plus announced their plans for a merger of their operations in Germany. The combined entity would have the customer base of 44 million subscribers and would be the operation with highest market share. This deal is expected to get EC's approval.

⁷"AT&T Scours Europe for Discount Deal Targets: Real M&A," 16 July 2013, Bloomberg; <http://www.bloomberg.com/news/2013-07-14/at-t-scours-europe-for-discount-deal-targets-real-m-a.html>

Key M&A Challenges

Regulation

In a highly regulated sector like telecom, regulators have naturally a strong impact on long term directions of the sector. Changing technologies, convergence, over-the-top (OTT) players, and emergence of the apps ecosystem create the risk that the role of telecom operators be marginalized and that they be effectively converted to bit pipes. In addition, lower consumer spend has led to ever decreasing margin for operators. In that context, regulations and associated regulatory body play a key role in controlling the M&A space.

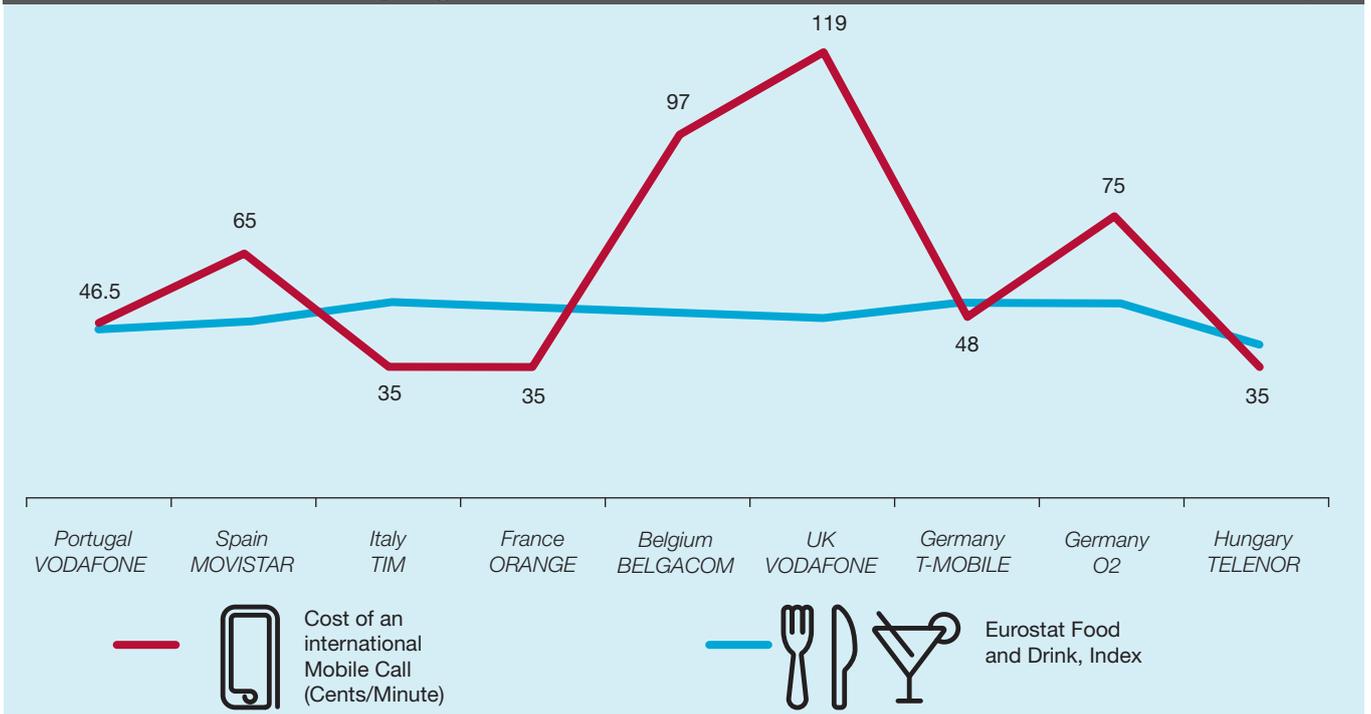
In Europe, multiple governments follow discriminatory approaches to spectrum that frequently benefit new entrants and does not incentivize network investments by incumbents. Lower investment costs for new entrants will result in them offering artificially low prices thereby benefitting the end consumer. For instance, Telefónica and 3 Ireland did not buy any 800MHz spectrum and instead bid for E-Plus in Germany and Telefónica's O2 in Ireland respectively. Competition authorities have raised concerns about both of these mergers. On the other hand, in the Netherlands, Tele 2's acquisition of 800MHz spectrum allowed the operator to start a green-field mobile operation in the Netherlands to compete with KPN, Vodafone, and Deutsche Telekom —the latter not having acquired any 800MHz spectrum⁸.

These country specific regulations and spectrum policies within the European Union (EU) have meant that the cost of an international call varies across countries.

⁸"The Phone Book and 14th Conference Guide", 17 March 2014, Citibank, accessed via Bloomberg on 26 March 2014.

⁹"774% difference in phone call prices across the EU," 6 August 2013; http://europa.eu/rapid/press-release_IP-13-767_en.htm

An illustration of varying cost of international mobile calls across Europe



Source: European Commission 'Digital Agenda' press release dated 6 August 2013⁹

The European Commission (EC) is pushing for a single market for telecom within EU. A single European market offers more than 600 million customers with the largest GDP of any economy. This scale of customer base will prompt leading operators to invest in networks and new services with comparable cost advantages.

The Federal Communications Commission (FCC), the telecom sector regulator in the US has often been criticized of regulatory overreach. In 2011, AT&T and T-Mobile USA had to withdraw their application to FCC for their proposed merger. FCC had rejected the proposed merger citing reduction of choice for customers and competition in the market, and had even referred the merger application to the Commission's Administrative Law Judge.

However, the FCC has played a strong role in making the US a vibrant and competitive Telecom, Media and Entertainment market. For example, the FCC approved in 2010 the conditional merger of Comcast and NBC Universal, which was thought to allow concentration of too much power over both television content and its transmission to consumers. The FCC had employed several merger conditions, such as requiring Comcast to offer a stand-alone broadband service for less than US\$50 per month for three years, in order to achieve certain policy goals – e.g. by putting an upper limit, FCC was attempting to ensure that customers are not forced to subscribe to unwanted video and phone plans. The FCC in this case was drawing from its learning from the approvals of a couple of mergers in 2005. In approving the mergers of SBC-AT&T and Verizon-MCI, FCC had mandated that these carriers sell a stand-alone DSL service for two years. Apparently, the companies had priced their standalone DSL services so high that customers were forced to subscribe to bundle offers.

Similarly, in Europe the negatives of over-regulation notwithstanding, the European Commission (EC) is pushing for a single market for telecom within EU. A single European market offers more than 600 million customers with the largest GDP of any economy. This scale of customer base will prompt leading operators to invest in networks and new services with comparable cost advantages. It would also allow operators the freedom to provide services, so that any operator can effectively offer any customer the same high quality services, wherever in the EU. In addition consumers can have the freedom to consume digital services wherever they originate within a unified European telecoms space.¹⁰

More recently, the EC has cleared the takeover of O2 Ireland by 3's parent company Hutchison Whampoa. Of course, the clearance is subject to a number of conditions, paving the way for the creation of the second biggest telecoms provider in Ireland. The merger will bring the number of Telco incumbents in Ireland from four to three (Vodafone, Meteor and O2+3). The combined entity will have about 40% of the market share.¹¹

The O2-3 deal is test-case of sorts for the European telecoms sector. This deal will pave way for similar consolidation in other European markets. For example, on 23 July 2013, O2 and KPN's German subsidiary E-Plus had announced their plans for a merger of their operations in Germany. The combined entity would have the customer base of 44 million subscribers and would be the operation with highest market share.

IT infrastructure consolidation

M&A deals bring significant IT challenges for telecom operators, as it can be difficult to integrate back-end, customer-facing, and operational and business support systems, throughout merged organizations. For example, in the US, Sprint's US\$35 billion acquisition of Nextel in 2005, involved operators who had implemented different technologies that could not be integrated. As a result, there were issues

¹⁰"One single telecom market for Europe!," 8 October 2013, European Commission Press Release; http://europa.eu/rapid/press-release_SPEECH-13-787_en.htm

¹¹"Comreg raises concerns about O2 takeover by Hutchison Whampoa," 28 May 2014, The Irish Times, <http://www.irishtimes.com/business/sectors/retail-and-services/comreg-raises-concerns-about-o2-takeover-by-hutchison-whampoa-1.1812394>

regarding call quality, interoperability and customer service which led to massive customer churn and a write-off of nearly US\$30 billion in value.

While scaling up through M&A remains an important strategic goal for CSPs, it is also imperative for them to assess the various challenges of integrating IT systems and processes – the operational and business support systems, front-end systems – so as to offer a uniform experience to their existing and acquired customers.

As the number and complexity of standard telecom applications such as billing support systems or customer relationship management has grown, so have the challenges of ensuring seamless integration of two companies. Several older operators are still running highly complex, custom-built, or legacy applications, which they struggle to keep up-to-date in an ever changing business environment. Such operators not only have to bear the obvious personnel and upkeep costs of older technology, they also have to bear the loss of loyal customers to newer, nimbler incumbents.

Combination of two different entities always presents overwhelming challenges that needs more than a just a few technology fixes. These challenges are more pronounced when two telecom operators of different pedigree decide to merge.

For example when an operator with a predominant customer base of pre-paid customers merges into a larger, more complex, diversified operator an entirely new set of challenges comes up. Operators with a predominant prepaid base neither have an IT-based billing system or a CRM system. At best, they may have implemented a rudimentary CRM system. Their IT function is only designed to provide the most basic services. On the other hand, the larger operator has highly complex and customized billing and customer-care systems.

Further, technological changes such as convergence of fixed and mobile networks, increased deployment of femtocells, mobile data offloading to WiFi, packet-switched to all-IP networks pose a challenge for legacy IT systems across all business functions. Their implementation either requires completely new IT systems, or requires massive modifications to existing IT infrastructure.

So, telecom operators should use their discretion in seeking business and technology expertise. In absence of which, the combined entity could end up with creaking technology, siloed departments, sub-optimal services rather than a coherent, end-to-end offering.

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Conclusion

As the US are entering into a likely final phase of consolidation, Europe is engaging into a series of M&As which will be a major characteristic of the communications market for the next 10 years.

While Europe took the lead in third-generation wireless networks several years ago, moving from 3G to faster 4G long-term evolution technology has taken much longer than it has in the US. The lag has been due to a weaker European economy, an inconsistent spectrum licensing policy by various regulators and operators high pricing on roaming costs and data that discourages use. In that context, industry consolidation will be helping the telecom operators improve scale, reduce costs and thus run networks profitably. This will enable telecom operators to optimize their capex in 4G networks, make better use of allocated spectrum and invest in next generation technologies such as 5G.

Similarly, the regulatory environment of telecom sector across the world is improving as regulators realize that financial strength of telecom sector is important for economic growth, and a more pragmatic view on consolidation is necessary.

As a consequence, the opportunity to buy technology and talented resources at reasonable prices will definitely drive some further cross-border acquisitions in Europe. In addition, impending European Commission regulations regarding telecom M&A, spectrum policies and infrastructure sharing will reshape the region's industry landscape, with fewer but stronger CSPs.

Authors:

Sayyam Kulkarni
Senior Consultant,
Capgemini TME Labs

Manish Sharma
Senior Consultant,
Capgemini TME Labs

Pierre Blanchard
VP, Global Telecoms
Practice



For more details contact:

Erwan Le Duff

Global Telecoms Practice Lead,
Capgemini
erwan.le-duff@capgemini.com

Pierre Blanchard

VP, Global Telecoms Practice,
Capgemini
pierre.blanchard@capgemini.com



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