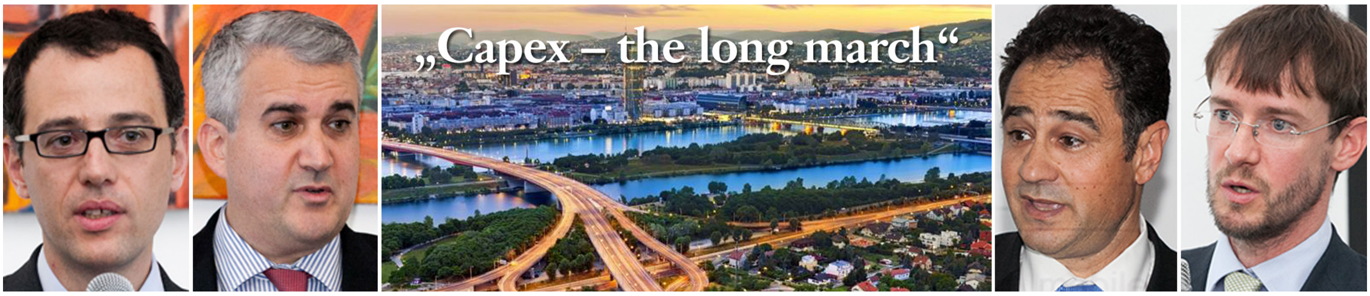
Arthur D Little

International Event

Exclusive Telco CEO & Private Equity Event

Presentation of the 13th annual joint Arthur D. Little / Exane BNP Paribas Study in Vienna



On May 19, 2014, Arthur D. Little hosted an exclusive event in its Vienna office to launch Arthur D. Little – Exane BNP Paribas' 13th annual Telecom Operators Report with an impressive attendance of CEOs and investors from across the telecom industry.

This year's edition of the report focuses on the industry's hottest topic, "Capex: the long march?", and addresses some critical questions: What are the investment prospects in the telecom sector? Will mobile leaders manage to ward off the challengers? Is consolidation the only option open to the latter? In the fixed line arena, will incumbents catch-up with cable and if so, at what cost?

The importance of this topic for operators, broadcasters, as well as hardware and content providers was highlighted by the over 50 top executives and shareholders of leading operators, internet players, software companies, media groups, equipment manufacturers, as well as regulators from 16 different countries attending the event.

The event began with a welcome by Karim Taga, Managing Partner, Arthur D. Little Austria, Global TIME Practice Leader and co-author of the study. Subsequently, Bertrand Grau, lead author of the study, made the executive presentation of the report, supported by Richard Swinford (ADL London) and Mathieu Robilliard (Exane BNP Paribas) and in the presence of Ignacio Garcia Alves, CEO of Arthur D. Little. This was followed by a Q&A session, during which the participants engaged in a lively discussion about the implications of the findings and questions about future development.

Many guests stayed until after midnight and took advantage of the relaxed atmosphere to engage in high-profile networking and to share their experience with executive leaders.

Key conclusions from the report:

- Telco capex is increasing to new levels in both mobile and fixed, driven by technological advancements and intense competition
- In mobile, there are real differences in network quality among market players, which leading operators are trying to play to their advantage
- Mobile challengers must act, consolidation being just one option. In any case, leaders will be facing challengers with larger scale, in markets which may or may not repair
- In fixed-line, cable will continue to extend its lead, which means even more capex for incumbents
- Consolidation of fixed broadband altnets is expected
- We see higher capex ultimately paying off in fixed-line; in mobile, it will lead to a regrouping of networks
- We forecast overall revenue decline for European telcos (-1.6% 2013-2016e CAGR), with a contraction in mobile, but growth in fixed broadband; the decline is expected to slow from 2014e

A new investment cycle

The sector has entered a new investment cycle. 2014 will be a record year for capex, reflecting both ongoing technological advancements, such as the migration to 4G LTE in mobile and to fibre in fixed-line, and intense competitive pressures, including the need for incumbents to respond to cable operators and a push by Vodafone to improve its relative position.

European telco capex is expected to increase by 10% in 2014 in absolute terms. Combined with lower revenues, this will bring capex/sales to 16%, far above the 12-13% average of the past few years.

Mobile network differentiation: leaders are ahead and raising their game

Even ahead of the current capex spike, there are genuine differences in mobile network quality among operators in Europe. In many countries, the best networks are twice as fast as the worst, due to major differences in terms of the number of base stations, 4G coverage, single-RAN upgrades and backhaul quality.

Unlike in the US, network differentiation in Europe has not paid off so far in terms of market share or pricing power – Switzerland and Germany being the two exceptions. However, as European economies start growing again, customers could become less focused on price and more on quality. Drawing from the US experience, Vodafone and a few others are trying to play network differentiation to their advantage.

How will mobile challengers react?

Capex increases by the mobile leaders are creating a headache for challengers, most of which have limited financial resources and are generating weak returns below their cost of capital, as they are lacking in scale.

Many industry participants hope that this will trigger consolidation and we do indeed expect to see more deals if the EC decisions on Ireland and Germany are supportive. Full mergers may not always be possible, being heavily dependent on the regulators and on the market structure, such as whether there are fixed/cable operators with mobile ambitions.

Challengers must therefore look at other options to stay competitive in the network game while optimizing capital efficiency, such as network sharing, which is less risky and brings significantly lower costs, backhaul or patchwork networks.

Overall, whether challengers merge or share networks, leaders are likely to end-up facing more potent competitors while the desired market repair may remain elusive.

Fixed-line: Cable in the lead means even more capex for incumbents…

Cable networks allow for much faster speeds than fixed telecom networks, and the story is not over. In the future, DOCSIS3.1 technology could enable download speeds of up to 1 Gbps. Even if consumers do not need such speed now, cable's ability to offer more for less will remain a competitive weapon.

Telcos need to step up their superfast broadband rollout efforts. The only competitive technology so far is FTTH, but coverage remains very limited: 9% of European homes passed in the 10 countries covered versus approximately 50% for cable. FTTC/VDSL, the cheaper option chosen by most operators, is not future-proof. Even with vectoring, it allows for up to 100 Mbps, or only a tenth of what DOCSIS3.1 can offer. Mobile-based 4G technologies cannot cope with the huge traffic volumes of 10-50 GB per month required by home fixed-line usage.

In our estimate, the incumbents will need to spend an additional EUR 20-25 billion on top of what has already been committed, representing an increase of approximately 20% to their fixed-line capex over the next ten years. This assumes that operators currently relying on FTTC/VDSL will move on to FTTD, FTTB or FTTS combined with G.Fast. These technologies bring fibre much closer, but not into, the home more cheaply, especially when combined with more extensive network sharing.

…and more M&A ahead for cable and altnets

Most alternative carriers, which do not own a fixed-line local loop unlike cable operators, are increasingly caught between a rock and a hard place:

- In Germany, the UK, Belgium and the Netherlands (the 'FTTC/VDSL countries'), altnets are likely to have to rely on a wholesale model, with lower EBITDA margins, less opportunity to compete on price and a weaker ability to differentiate compared to the current local loop unbundling business model.
- In France, Spain and Portugal (the 'FTTH countries'), altnets have the option to co-invest. Still, the move to fibre is very costly, financially viable only for altnets with significant market share (>20%) and assuming that they are able to roll out FTTH at a low cost (max. EUR 300-350 per home passed).

The move to superfast broadband is therefore likely to lead to more consolidation. We see a natural mobile-cable or mobile-altnet fit reflecting 1) the difficulty for non-cable and non-incumbent players to compete organically in superfast broadband; 2) the potential revenue and cost synergies given the cross-selling opportunities, and 3) the defensive rationale for mobile operators of avoiding mobile competition from fixed-line players. Overall, cable operators and fibre-rich altnets are in a strong strategic position, as they are the fixed-line challengers with the best assets to compete in superfast broadband.

The future of telecom networks: virtualized patchworks

The networks of the future will be "virtualized", "IP-ized", "layered" with benefits in terms of costs and simplicity, but also in terms of ease of interface with other networks and players in the ecosystem. This is key because it will enable:

- "Patchwork networks" or the emergence of operators built on a number of different types of networks, owned by themselves or by others, combining technologies (fixed-line, mobile, cable, WiFi, etc.) and generations (3G, 4G, etc.) depending on geography.
- New sources of revenues, based on business models that leverage third parties, including the better monetization of operators' networks with OTT players.

Revenue decline expected to slow progressively

Overall, we see higher capex ultimately paying off in fixed-line with the building of higher barriers to entry and more concentrated markets, although this will come at a higher cost than currently expected for incumbents. In mobile, we believe that higher capex will lead to a regrouping of networks, but not necessarily to a decline in competition. Indeed, the only way to boost pricing power is to repair the market via consolidation, but this is in the hands of regulators and will also depend on market structure.

Overall, we continue to anticipate a revenue decline for European telcos: -1.6% CAGR through 2016e, including -3% CAGR in mobile, but growth in fixed broadband.

Conclusion

The Q&A session following the presentation of the study results reflected the main themes of the evening: the need for market players to take an active role in shaping their market, the importance of innovation in network and service differentiation and the push to transform operating models to a layered approach.

Reflecting on the continued projected revenue decline, the audience questioned the ability of telecom operators to succeed with new services, such as IT integration, which has been a major contributor to the few success cases seen to date.

The participants emphasized the need to illustrate the benefits to consumers of potential mergers, arising from lower cost of production rather than pricing discipline. The audience contentiously questioned whether regulation might become more balanced by introducing wholesale access to cable networks, given the strengthening position of these players.

The hopes for a level playing field in regulation between investors in infrastructure and users of that infrastructure were hotly debated, with the existence of a 'neutral internet' being challenged by recent interventions by OTTs in core networks/ CDNs. There is a clear need for a shift in regulatory focus, in terms of user privacy and data security, for which many customers are still unwilling to pay.

About the Arthur D. Little – Exane BNP Paribas annual report

In 2014, we are honored to release the 13th Arthur D. Little Exane study. Every year since 2002, Arthur D. Little and Exane BNP Paribas have conducted an in-depth examination of the telecom market with a focus on European operators.

To conduct these studies, Arthur D. Little's international consultants meet with a variety of stakeholders within the sector, including operators, hardware manufacturers, media and regulators. The 2014 report is the result of 118 interviews with telecom operators, telecom and device vendors, regulators, utilities and local authorities across 24 countries in Europe.

About Arthur D. Little

As the world's first consultancy, Arthur D. Little has been at the forefront of innovation for more than 125 years. We are acknowledged as a thought leader, linking strategy, technology and innovation. Our consultants consistently develop enduring next generation solutions to master our clients' business complexity and to deliver sustainable results suited to the economic reality of each of our clients.

Arthur D. Little has offices in the most important business cities around the world. We are proud to serve many of the Fortune 500 companies globally, in addition to other leading firms and public sector organizations.

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