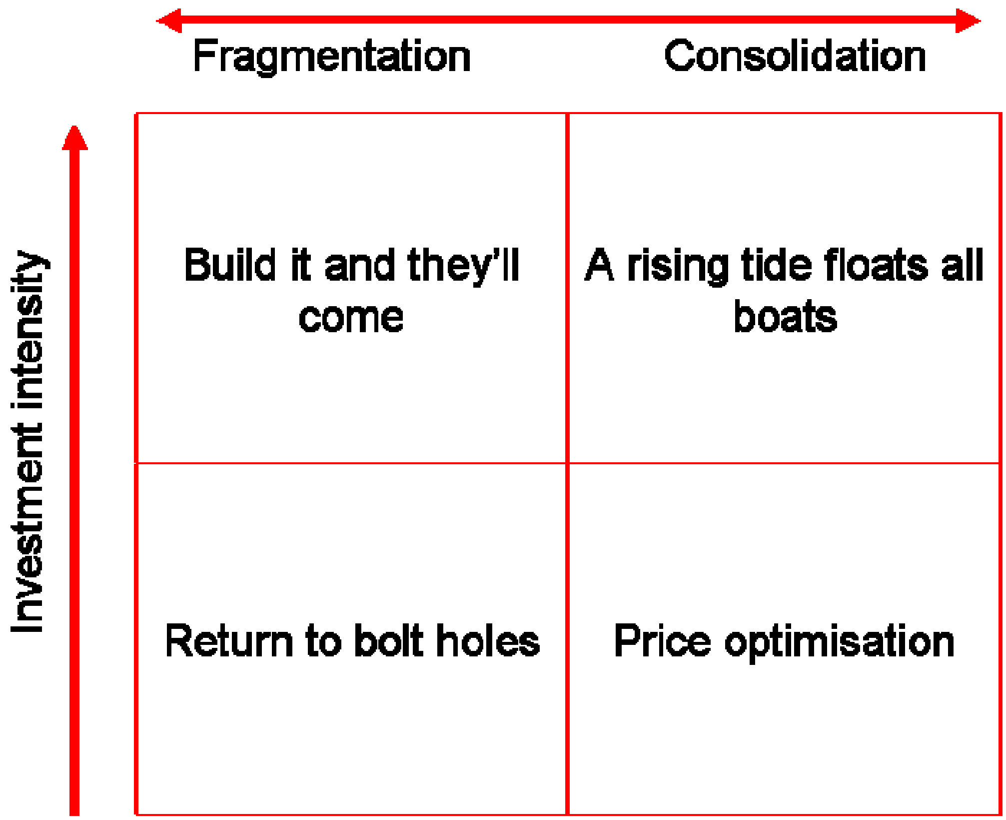
The Future of Communications 2015

Summary

Telecommunications are traditionally a good lead indicator for the economy, and yet a recent poll published by BT suggests that broadband, mobile and home phones make up three of the top four things people would hang onto in a downturn. Whether or not this reflects a fundamental shift in cultural attitudes in a 24/7 connected society, the communications industry is faced with some seismic changes in technology, regulation and markets. It is far from clear how it will emerge beyond the current business cycle, but investment payback cycles in this industry can be measured in decades and some big bets are being placed by operators and their suppliers now.

So we recently got together with SAMI Consulting (St Andrews Management Institute), specialists in scenario planning, or "future-proofing", as they would say. Together we mapped out some scenarios based on the world in 2015, which we summarise below.



The many interlocking trends and developments boiled down to two main dimensions of uncertainty: investment intensity (the amount of investment, or financial incentive to invest) and network fragmentation (how far networks and the industry nationally and globally continue to consolidate and work together).

Some trends seemed to us to be pretty inescapable, for example the move towards higher speeds of mobile and fixed broadband – we felt that 24Mbps+ would be pretty universal in the richer countries and many of the poorer ones too, whether the business case stacks up right now or no, just because there seems to be such a head of steam behind it. We couldn't see a halt to the spread of pro-competitive regulation, with the European model and variants of it the dominant pattern. We also felt that the big infrastructure investments (particularly access networks) would gravitate towards the utility model, with regulation ensuring steady, if unspectacular, returns, though who would making the investments and reaping the rewards was less clear.

That still left many factors that seemed to us to be important, but uncertain. For example, will the arms race with the spammers, spitters, phishers, fraudsters, terrorists and other malware merchants escalate costs and disaffect people with the networked world? Would privacy issues lead to all kinds of fire breaks and fire walls, or even to activities moving off net? Would the content industries (music, film, sport, TV) get their acts together and evolve business models that enable them to be profitable and to drive consumer network use? What are the limits of advertising as a money source?

All this coalesced, with a bit of expert technical help, into four distinct stories for how the industry moves through and beyond the current recession and into the next business cycle around seven years from now.

The Scenarios

The four scenarios are summarised briefly in the diagramme above, which shows the main dimensions along which we see the possibilities varying, and in the table below we expand a little on what each might be like.

All share a starting point of a period of difficulty and stress for the industry caused by the current recession, but they differ in their assumptions about how things will turn out as the world emerges from that recession and onwards into the next business cycle. One way of looking at this might be to compare it with an evolutionary "choke point" – a traumatic incident or sequence of events such as seems to have occurred at the end of the Cretaceous period and that led to the extinction of many species, including the dinosaurs.

Whilst it seems unlikely that the communications industry is wholly composed of dinosaurs, even the small furry mammals and birds amongst us are going to need to adapt to conditions that might turn out to be radically different.

Build it and they'll come

A more troubled and politically insular world following the late 2000s recession combines with an increasing urgency to reduce carbon footprints. The result is a steady growth in online social and business networking, videoconferencing and telepresence and security applications. Fibre optic access networks having become a favoured infrastructure project of the digital "New Deal", there is ample bandwidth.

Continuing enthusiasm for extending competition and curbing the power of the new fibre utilities is tempered somewhat for many governments by national security and information privacy considerations and a series of nationalisations of foreign fixed and mobile telecoms operators curbs the enthusiasm of developed world champions for seeking growth in other markets.

Nevertheless, large online service providers such as Google and Microsoft continue to prosper alongside a host of newer providers exploiting the opportunities of new internet-connected mobile devices, pervasive computing and entertainment content financed by novel business models.

A rising tide floats all boats

The communications industry emerges stronger from the late 2000s recession, having improved efficiency by around 20% by reducing manpower, divesting non-core businesses and investing in Next Generation Networks.

Regulators redouble their efforts to ensure that competition takes hold in a rising market, leading to various flavours of functional and structural separation and a realignment of fixed and mobile operators between wholesale network operators and full-service retail service providers.

The release of radio spectrum formerly used by analogue TV and earlier generation mobile services unleashes a host of new consumer and business services supporting new generations of networked devices for commerce, entertainment and communication. Increasingly this resource is marshalled by international spectrum utilities, as well as core and access network operators.

Although the fight against spam and malicious actions against networks intensifies, international collaboration and ample resources ensure that this issue remains manageable.

Return to bolt holes

The services side of the communications industry emerges from the late 2000s chastened, but intact, having retrenched from peripheral activities such as online content and professional services, cut costs and retained core capital investment programmes such as conversion to New Generation Networks (NGN) and fibre-based access (NGA).

The drive for local network unbundling and structural separation runs out of steam during the recession, as national regulators look to protect incumbent carriers' investment programmes and would-be challengers scale back on their plans.

As growth returns it is the providers of networked applications, new entertainment formats and new forms of networked devices who see the greatest growth and who garner bulk of the new revenues. Although traffic volumes for fixed and mobile operators accelerate, price competition and regulated returns on fibre access networks keep revenues and margins flat.

Although the pre-recession trend towards global consolidation resumes at a slower pace, it is the new tigers of the developing world who expand into the mature markets of Europe, North America and Japan, using their low-cost, no-frills business models to compete on price, as their home markets saturate.

Price optimisation

Heavy price competition during the late 2000s recession and increasing scale economies from Next Generation Networks (NGN), fibre optic access networks and 4G mobile networks drives physical network provision towards a utility model. The threat of business failures drives faster international consolidation.

The EU central communications regulator imposes a pattern of strict structural separation and unbundling, but with protection and utility returns for deep-pocketed long-term operators and this becomes the international norm.

Mobile internet applications evolve towards a limited core set based around communications, commerce and social networking, but privacy and information security considerations hamper growth. Consumers opt for value, features and durability of handsets over networked features.

Although high-speed broadband access is widely available, its take-up was initially limited by the decline in popularity of broadcast video entertainment as production and marketing budgets declined.

What does all this mean for you?

Under each of our four scenarios there is opportunity and challenge in different ways for different types of player.

The most optimistic of the four is perhaps “A rising tide floats all boats”, since the effect of the recessionary choke point in that case is to force efficiencies and to strengthen the fundamentals of the industry before growth resumes. The strong stay strong (provided that they deliver on the efficiencies) and most others can adapt happily enough.

Under “Return to bolt holes”, by contrast, the price of survival for full-service telcos is a severe curtailment of ambition. When growth returns they largely miss out on the benefits and must try to play the low-cost operators at their own game.

The other two scenarios feature different combinations of fragmentation and growth. “Build it and they’ll come” sees growth, but in a more fragmented and security-conscious world – good for niches, tricky for the globally ambitious. “Price optimisation”, by contrast sees the industry squeezed towards consolidation and scale economies – good for utilities, bad for niche innovators.

Detailed understanding of the opportunities, threats and implications for action from any particular perspective would, of course, require more detailed consideration of the scenarios and their underlying models than can be given in this brief summary paper.

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