

1 A broad range of telco and non-telco players will deliver NGA

Next-generation technology is revolutionising the broadband marketplace. FTTH, FTTC and next-generation cable networks based on DOCSIS3.0 technologies are promising to change the way subscribers demand and consume voice, data and video content. However, these new networks are also shaking up the supply ecosystem.

Traditionally, broadband has been delivered almost entirely by telcos (incumbents and altnets) and cablecos. This has made for a simple and consolidating marketplace where competition is easy to assess.

However, the provision of next-generation broadband access has opened up market opportunities for many new players with differing strengths and weaknesses, investment profiles and cost bases. Some new players will provide a significant threat to traditional players. This report, focusing on infrastructure-owning operators, identifies who the new players will be and in which markets they will succeed, or fail. It compares and contrasts their business models with those of traditional telecoms players, and evaluates which of these are the most likely to succeed in winning market share in this nascent market.

The operators that are building and operating FTTH, FTTC/VDSL and DOCSIS3.0 networks – technologies that we shall refer to in this report as NGA – divide into six categories. Although there is naturally some overlap between categories, we shall class them as follows:

- **Telcos:** Because it is usually the case that infrastructure-owning telcos are the incumbent telco in any given country, in this category we shall focus on incumbent telcos. However, where existing altnet players build NGA networks themselves, they typically bear the same characteristics and face the same opportunities and challenges.
- **Cablecos:** Cable operators typically operating hybrid-fibre coax networks.
- **Energy suppliers:** Companies that have traditionally supplied electricity and/or gas products, but have diversified into providing telecoms access networks. These companies are primarily publicly owned, provide FTTH access, and are located in Denmark, Norway, Sweden and Switzerland.

- **Public funding:** Not a telecoms player as such, but publicly funded broadband will be important in the broadband market and will be considered because of the sizeable distortions it will cause in the provision of NGA networks.
- **Wholesale-only players:** A small number of private operators, which do not fit any of the categories above, are building NGA networks, but do not intend to sell directly to end users. Instead, they sell to other operators through a tiered model. Publicly funded open-access networks are not considered here, but instead are covered within the public-funding category. In the case of a structurally separate telco business such as BT Openreach, this is considered within the telco category.
- **New market entrants:** This category comprises new or very recent entrants into the NGA marketplace. Players with a significant broadband legacy will be considered within one of the other categories. New entrants tend to build telco-type infrastructures and include mobile network operators such as Vodafone and SFR.

In Chapters 2 to 7, we analyse each of these categories of players, identifying their strengths, weaknesses, opportunities and threats, and drawing on examples of their past successes and potential future successes.

In Chapter 8, we compare and contrast their approaches, and evaluate which operators are poised to be the most successful in the NGA marketplace.

For the purposes of this report, success will be measured by customer acquisition, and not financial KPIs. We define NGA as any technology that offers into the home a fibre, a VDSL line or a coaxial cable attached to a DOCSIS3.0-enabled CMTS. We do not include FTTC where ADSL2+ is used as the final connection. Downstream access speeds under our definition typically exceed 30Mbit/s, but include a small number of slower VDSL services. Clearly speed is not everything. Other services – particularly content – are essential for a successful NGA operator. Within this report, however, we shall focus on speed as a key differentiator.