

Rural broadband presents new opportunities and unique challenges for the telecoms industry

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Governments worldwide are seeking to provide rural broadband in order to deliver connectivity to underserved and hard-to-reach citizens. This will bring significant opportunities to citizens, governments, operators and suppliers.

Rural broadband is often provided via government intervention; governments support investment when the normal commercial processes have not addressed citizens' needs. As such, these interventions deliver critical services that are needed but are not fully justified by the normal commercial investment criteria. That is, it is difficult or impossible for commercial operators to fully recover their investment from the revenue paid by the residents and/or businesses in rural areas.

Governments must set policies that are unique to the needs of these under-served citizens. These policies nearly always involve significant subsidies that are not otherwise available to operators. These subsidies come with rules that are not present in the normal commercial world to protect the public purse. For example, requirements in terms of coverage, pricing mechanisms and network access may be stipulated. Subsidies can also create new opportunities and competition for operators, vendors and investors.

Broadband has become just as fundamental as services such as electricity and transportation to enable societies to run smoothly. The pandemic reinforced and amplified the importance of broadband for the whole of society, not just those who can be easily reached and can comfortably afford it. Indeed, the increased levels of home schooling and remote working meant that broadband shifted from being very nice to have to being essential. Those without it were not only cut off from Game of Thrones, but also from essential economic and/or government services.

Rural broadband implementations take many years and go through several distinct phases

Serious rural broadband deployments are major public infrastructure efforts that take years to plan and implement and need to serve for decades. The main phases of a rural broadband effort are:

- strategy
- policies and regulations
- procurement
- implementation (including governance).

Strategy

The first step is to set a strategy for what is to be achieved. This is a political process that involves consultations with stakeholders including government departments, telecoms operators, industry groups, rural advocacy

groups and the general public. Problems must be understood. Strategy efforts generally cover the following six areas.

- Where do we need to intervene? Where does the problem lie?
- Will we mandate a technology or be technology-neutral? How will the technology evolve in the future as requirements change?
- Is it important to use existing infrastructure or should we emphasise acquiring new infrastructure?
- What products will the effort produce? Will it enable wholesale services that are used by established operators to reach consumers or will it provide retail commercial services to the consumer?
- What will it cost?
- How is the public purse protected when balancing efficiencies in spending with above-average profits?

Policies and regulations

Work must be done to set out the means to implement the goals once they have been agreed and the funds have been allocated. Governments generally lay out a set of rules for commercial companies in the areas listed below.

- Where will coverage be required?
- What are the technology specifications and user requirements both now and in the future?
- What products must be available to consumers and at what price?
- What are the operational KPIs that must be delivered and maintained?
- How will the interests of companies that are already serving the market be protected?
- How will spending efficiencies be incentivised while protecting against above-average profits for network operators?

Procurement

Then follows a process of allowing and incentivising companies to bid to receive the government subsidies. Policy setters need to listen to the concerns and suggestions of those interested in bidding and will typically address any legitimate concerns, including the following.

- How will the formal bidding process work?
- Will bidders be restricted in how much of the intervention area they can bid for?
- What are the financial requirements for bidding and what are the penalties for non-compliance?
- How are the bidders to be evaluated? Are they in compliance with the criteria, is their technology plan feasible, are they financially viable and able to carry out the work?

This procurement process has much in common with that for other major government-funded infrastructure including public–private partnerships, but it also has unique telecoms characteristics that have not been faced before.

Governance

Building networks may still take years once the successful bidders have been announced. Subsidies are paid to the successful bidders when they reach milestones in terms of building infrastructure and connecting customers. In some cases, there the policy setters may mandate that the operational costs of networks are subsidised, particularly in the early years of the deployment. Some of the winning bidders may fail to deliver, and therefore significant governance effort is required by the subsidising public body to keep all the suppliers on track to deliver the finished benefits.

Conclusions

Rural broadband deployments give governments the opportunity to modernise and improve the way of life for under-served portions of their population. Full broadband connectivity is a key enabler for the provision of government initiatives, such as smart health and remote education. It also provides opportunities for the telecoms industry to add millions of new customers for well-established broadband services. However, telecoms industry players will have to adjust to a different commercial model and must approach the process in partnership with the government.

Successful rural broadband projects require significant government funding and many years of planning and implementation. Governments work through the many phases to ensure a good result. Service providers, vendors and investors need patience and a willingness to adapt to a government contract business model.

Analysys Mason has provided extensive support for [National Broadband Ireland](#). For more information, contact [Patrick Kidney](#), Partner.