

# Physical Infrastructure: Challenges in Build for AltNets

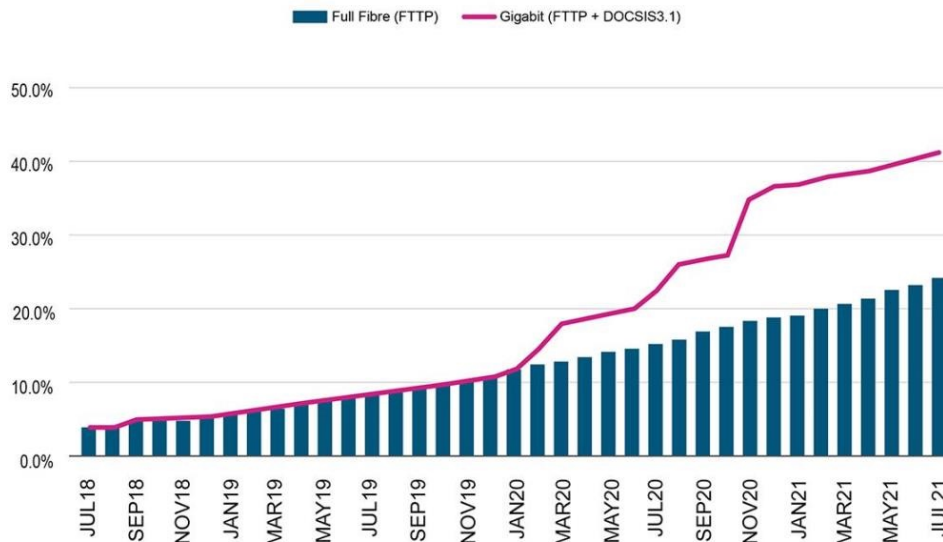
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## What's the current situation?

- Government committed to **85%** UK wide Gigabit-capable coverage by **2025**<sup>1</sup>.
- Current Full Fibre coverage in England stands at **27%**<sup>2</sup>.
- Total properties in England stands at **~25 Million**<sup>3</sup>.
- **Conclusion** – *Commitment set by the Government far outstrips the current ability to deliver* (in my opinion).
- **What are the AltNets doing? A great deal!** (also, in my opinion).

### Full Fibre and Gigabit Coverage, UK



Project Gigabit - Summer Update 21



#### Sources

1. <https://www.gov.uk/government/news/two-million-rural-homes-and-businesses-to-benefit-in-5-billion-broadband-upgrade>
2. <https://labs.thinkbroadband.com/local/>
3. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/965829/Local\\_Authority\\_Council\\_Tax\\_base\\_England\\_2020\\_-\\_Statistical\\_Release\\_REVISED.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/965829/Local_Authority_Council_Tax_base_England_2020_-_Statistical_Release_REVISED.pdf)

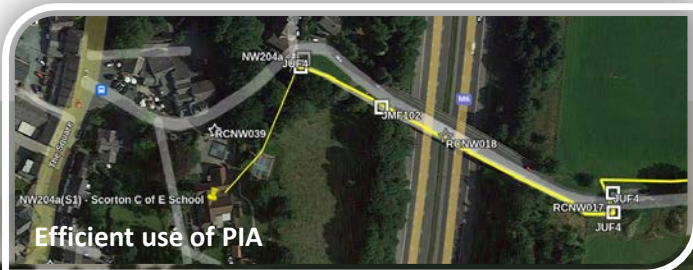


## Baseline deployment method(s), materials, tools, and equipment selection

- Spend time to decide and commit to your method of installation, choose the technology and deploy it en-masse.
- Mixed technology deployments have their place, but in order to deploy at pace, value, and to maximise coverage you must focus.
- This is true even in the Rural and Deep Rural spaces, you CAN reach the hardest to reach properties with full fibre, we have done it, and will do it again!

## Openreach Physical Infrastructure Access

- A must as part of your delivery tools.
- Use it efficiently to minimise disruption, increase deployment speed, and diversify your deployment model.
- Be prepared to study resources, processes, and systems to gain access, install successfully, and to be compliant.





## Funding Avenues

- There's currently appetite and momentum in the industry for investors to get involved and back AltNets and their solutions to deliver Gigabit capable networks against the Governments plans.
- This adds additional pressures for AltNets to deliver against targets in the most challenging environments, targeting the most Rural and those with slowest speeds, outside-in.
- Part of the key to success is to carefully define the scope of project/package to best suit all parties involved, including, arguably the most important, the end customers who will take up and subscribe to Gigabit capable services.

## Project Gigabit & The Gigabit Voucher Scheme

- Incredible pressures to deliver, key engagement with the teams and processes essential to success in accessing critical funding for projects.
- Absolute commitment from DCMS to working with AltNets in both Voucher areas and procurements under Project Gigabit for the delivery of network UK wide.
- We all share the common goal of connecting as many properties as possible to Gigabit capable networks as soon as possible, and for us this means Full Fibre symmetrical services.





## Speed/Pace of deployment - Permissions

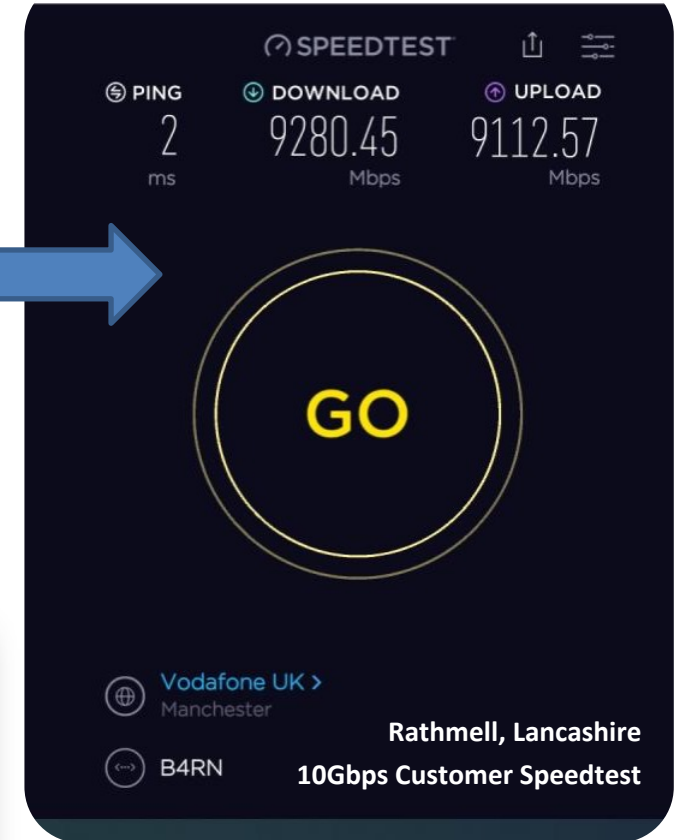
- Another key to the success of delivery is gaining permissions to deploy network.
- Engage now, yesterday in fact, and have your systems and processes in place to continue discussions through to granted permissions.
- Ensure you are compliant, HSE (CDM), Ofcom, and that you are ready to talk to any landowner, council, trust, and body.
- In order to meet the common goal of UK wide coverage, including the most hard to reach, we must all work together.
- It's very common in a single Rural project you will need to meet and engage with the likes of the Local Council, English Heritage, Natural England, Canals & Rivers Trust, National Park Authorities, Network Rail, Environment Agency, Cadent Gas... The list goes on...
- **We owe a huge part of our success to the generosity and support of key landowners who waive payments for wayleaves in order to support their communities and keep installation and operating costs to a minimum.**



Vermeer PTX40  
Vibratory Mole Plough

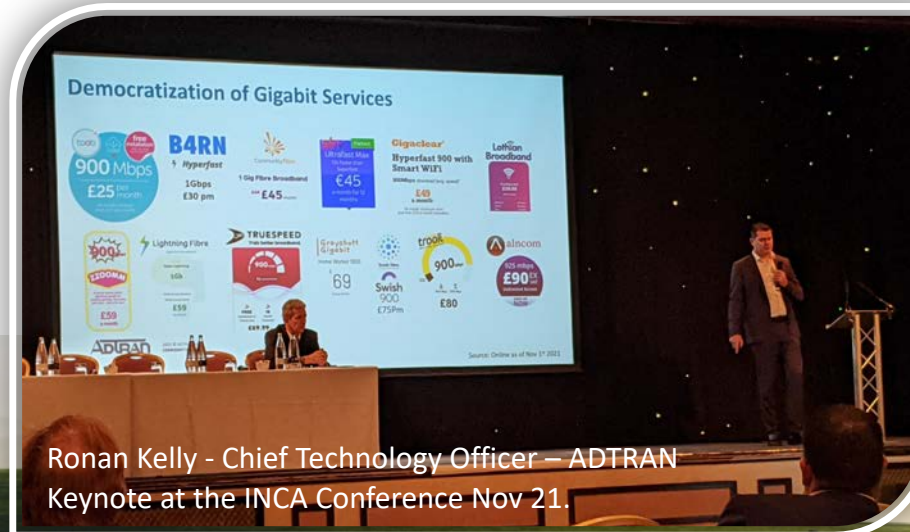
## What's the next technical leap?

- You have got to keep up with the technologies available and plan ahead for those down the line.
- Much talk and discussion around PON offerings, concentrating on power consumption for one. For us, we see an absolute future for PTP dedicated fibre from cabinet to property in the Rural/Deep Rural space.
- In terms of our core network this is planning the upgrade to 100G/400G capabilities. We must be careful in the design process to accommodate the requirements around the physical infrastructure fibre layer, DWDM optical layer, and ultimately logical Layer2/3 and beyond.



## What's the norm today? Where is demand going?

- The standard today is gigabit, for us that also means symmetrical. The view of demand for bandwidth in the future is clear, it's on the rise...
- The future is Multi-Gig, consumers will demand more over time, so let's be ready for it.
- **We can deploy 10Gbps residential and business services TODAY.**





## Conclusion/Anecdotes

- We have great momentum and appetite UK wide to make gigabit capable services available to all, lets fuel this and keep going at pace.
- I see a clear shared common goal across all AltNets, and all operators in fact, of connecting as many properties as quickly as possible.
- There's enough work for all of us, the better we communicate and deploy network as a cooperative the better. I believe there are more than 80+ AltNets at it today.
- I feel that the industry choices for technology options have settled, we are all deploying similar network using common materials and equipment, this can only help the overall goal.
- Work closely with the communities and potential customers and you will see a step change in engagement and overall delivery.
- **Thanks, as always, to our dedicated volunteers, champions, and landowners who make B4RN possible, without you all, I wouldn't be standing here today.**

