

Project Stratum

Local Council Representatives Update Meeting

Tuesday 24th November 2020



Project Stratum Objectives



- Singular aim of this project is to utilise all available funding to improve broadband access infrastructure in Northern Ireland
- Increase the number of premises able to access Next Generation Access (NGA) broadband services capable of delivering in excess of 30 Mbps
- Maximise NGA broadband coverage by increasing provision in areas poorly served and not capable of attracting commercial investment
- The Project Stratum target intervention area is 97% rural and covers a broad swathe of Northern Ireland, targeting just below 79,000 premises
- This equates to approximately 11% of premises in Northern Ireland, as circa 89% can currently access broadband capable of 30Mbps+

Broadband Connectivity Gap



Although 89% of premises in Northern Ireland have access to broadband services in excess of 30Mbps, the figure is 66% in Rural Northern Ireland

	300Mbps+	30Mbps+	10Mbps+	Full Fibre
England	58% R: 19%	95% R: 82%	99% R: 93%	13% R: 15%
Scotland	49% <mark>R: 11%</mark>	93% R: 71%	97% R: 83%	13% R: 9%
Wales	33% <mark>R: 18</mark> %	93% <mark>к.: 77%</mark>	97% <mark>R: 88%</mark>	15% R: 17%
NI Overall	55% R: 13%	89% R: 66 %	94% R: 82%	47% R: 13%

Ofcom Connected Nations Update: Summer 2020

Recent Progress



- The evaluation of tenders was completed in August and a preferred bidder identified
- The necessary robust corporate governance and internal approval processes were then conducted
- The FBC was subject to a Gateway 3 Review, Casework Committee approval, Advisory Panel review, Project Board approval, internal DfE approvals
- BDUK State aid Assurance (Assurance Board Gate C approval) was confirmed on 11 November 2020

Contract Award



- Project Stratum contract based on BDUK template documentation and adapted for Northern Ireland procurement using the restricted procedure – a process robustly managed by CPD
- The contract comprises a pre-full service commencement term (3 years) and a post full service commencement term (7 years)
- Under the terms of the contract Fibrus will invest over £45m in network build costs – the total network build costs will exceed £210m to reach the more than 76,000 premises in scope
- The contract allows for 'headroom' funding of up to £35m and DfE aims to secure the additional funding required to reach all premises in the target intervention area under this intervention

Fibrus Networks Ltd



- Fibrus is a new telecommunications provider seeking to transform the digital infrastructure of rural and regional Northern Ireland
- Already investing in excess of £100m to bring full fibre broadband to homes and business in Northern Ireland
- Fibrus founded by Conal Henry (Chair) who also Chairs the £500m HM
 Treasury backed National Digital Infrastructure Fund based in London
- CEO and founding member Dominic Kearns established one of Northern Ireland's fastest growing firms, b4b Telecoms, as a home-grown business
- Fibrus has assembled a credible team of telecommunications professionals and parent company is a leading infrastructure investor
- InfraCapital holds in excess of EUR1bn of investor commitments focusing on new-build infrastructure and telecommunications in UK and Europe

Fibre to the Premises (FTTP)



- Fibrus will deliver infrastructure to provide more than 76,000 premises in the Project Stratum intervention area with FTTP broadband connectivity – 16,000 km of fibre will be laid
- FTTP is fibre broadband that is wired directly to the home or business, using fibre optic cables, and is the fastest type of fibre currently available to consumers
- Fibrus and other providers offering services on this Open Access Network – will introduce a range of broadband options
- Fibrus service offerings will be based on broadband speeds of 100 Mbps, 300 Mbps and 1,000 Mbps (1 GBps), for example
- Service providers are likely to launch discounted introductory offers; pricing will be aligned to benchmarked pricing in other markets – consumers in rural areas will pay the same as urban dwellers

Stratum information: www.HyperfastNI.com





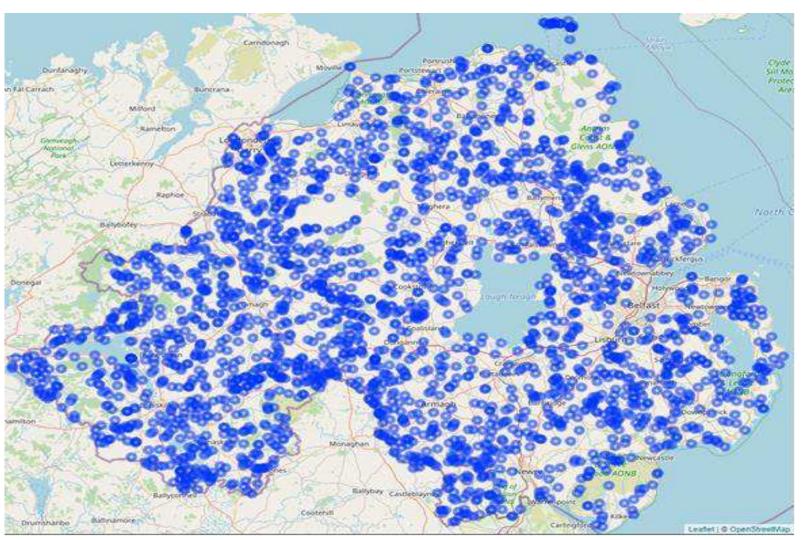
Maximising Coverage across the Intervention Area



LOCAL COUNCIL	NGA Coverage before Stratum	Premises to be passed by Stratum	NGA coverage after Stratum (76,000+)	Premises in council to benefit from Stratum (76,000+)
ANTRIM AND NEWTOWNABBEY	92.0%	4,932	99.8%	7.8%
ARDS AND NORTH DOWN	95.0%	3,684	99.9%	4.9%
ARMAGH CITY BANBRIDGE AND CRAIGAVON BELFAST	88.6%	10,080 154	99.7% 99.9%	11.1%
CAUSEWAY COAST AND GLENS	90.3%	6,268	99.6%	9.3%
DERRY CITY AND STRABANE	94.2%	3,545	99.6%	5.4%
FERMANAGH AND OMAGH	71.2%	14,821	98.9%	27.7%
LISBURN AND CASTLEREAGH	93.6%	3,914	99.9%	6.3%
MID AND EAST ANTRIM	92.2%	4,694	99.7%	7.5%
MID ULSTER	78.4%	12,289	99.4%	21.0%
NEWRY MOURNE AND DOWN	83.6%	11,852	99.6%	16.0%

2,517 premises currently out of scope (3% of IA)





2,517 premises currently out of scope by Local Council



LOCAL COUNCIL	Currently out of Scope
ANTRIM AND NEWTOWNABBEY	133
ARDS AND NORTH DOWN	91
ARMAGH CITY BANBRIDGE AND CRAIGAVON	236
BELFAST	6
CAUSEWAY COAST AND GLENS	286
DERRY CITY AND STRABANE	244
FERMANAGH AND OMAGH	612
LISBURN AND CASTLEREAGH	87
MID AND EAST ANTRIM	194
MID ULSTER	354
NEWRY MOURNE AND DOWN	274

Intervention Plans for Premises Currently out of Scope



- High Level Design conducted by Fibrus that takes into account all premises in Project Stratum Intervention Area
- Modelling work to be conducted by Fibrus in coming weeks to determine potential NGA broadband solutions and costings
- DfE continues to engage with DCMS and aims to secure the required funding ('superfast top up funding') to deliver objectives
- Overarching aspiration of the project is to ensure that all premises in the target intervention area benefit from Project Stratum and that no premises are left without viable connectivity solutions

'Vertical Take Off' - Deployment across 40 Months

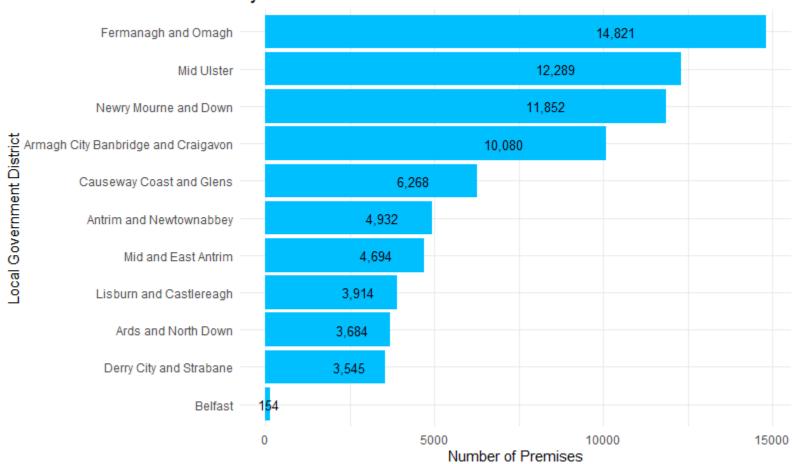


- DfE's Pre-Market Engagement with industry indicated that 6-9 months was anticipated for network design, following contract award
- However, in this period Fibrus will pass circa 9,000 premises after 6 months; circa 16,000 premises after 9 months
- This is due to Fibrus' 'Vertical Take Off' approach to deployment which means that initial deployment is already underway
- The project will be deployed across 49 distinct areas across NI with services to be made available through 13 quarters – ends March 2024
- Substantial Infrastructure Project: Network Design, Phasing Plans,
 Deployment Methodology to be presented by Fibrus on 2 December

Vastly Improved Broadband Connectivity Landscape



Premises to be passed under Project Stratum* by Local Government District



^{* 3%} of premises in the target intervention area currently not in scope for Project Stratum will also be addressed through this intervention and further details to be announced at a later date.

Project Stratum Contract Management & Governance



- Same level of robust project management protocols and governance procedures in place throughout Implementation
- Key monitoring areas include: project expenditure, implementation milestones, premises passed, number of customers, download speeds achieved, customer satisfaction of service levels
- Project Board to guide development in line with the provisions of the contract – constant engagement between DfE, Fibrus and BDUK
- Payments made on delivery of milestones across 12 phases each phase comprising 3 milestones; payments evidence-based
- Vouching & Verification Team within DfE to provide dedicated support in addition to external independent technical and financial expertise

Ongoing Engagement with Local Councils



- DfE and Fibrus to present further roll out details to Local Council Representatives on 2 December 2020
- Fibrus representatives will provide details of deployment, phasing and network design – and will answer submitted questions
- Please send your questions to stratum@economy-ni.gov.uk
- Local Council Engagement Essential to Keep Stakeholders
 Informed and to Encourage Citizens to Take up Enhanced Services
- DfE Looks Forward to Future Engagement With Local Councils on Behalf of Citizens throughout Project Stratum Implementation





IN COMMERCIAL CONFIDENCE



Infracapital



IN COMMERCIAL CONFIDENCE

Confidentiality

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PROJECT STRATUM



INTRODUCTION — DFE

IN COMMERCIAL CONFIDENCE

ABOUT US

Fibrus is a full fibre provider seeking to transform the digital infrastructure of rural and regional parts of Northern Ireland by investing alongside the Executive, £350m to bring fibre broadband to every home and business in Northern Ireland.

The company was formed in 2018 and has since been purchased by Infracapital, a leading infrastructure investor, who have a strong track record in delivering, owning and managing investments in full fibre broadband projects.

Fibrus has recruited a seasoned telecoms management team, with over 100 years combined telecoms experience, that is set to deliver one of Northern Irelands most ambition transformational projects. We are committed to making real change through connecting and bringing homes and businesses into the 21st century and ultimately changing people's lives.





WHAT WE DO BETTER

The switch to full fibre broadband is underway and is now the critical infrastructure of the 21st Century. Ultimately Fibrus has a single focus, whilst phone companies run slow copper phone networks from the cabinet to the premises, TV companies run slow copper networks from the cabinet to the premises and satellite TV networks, Fibrus is a "Full Fibre" broadband company meaning that we only use a full fibre optic cable all the way to the premises.

BENEFITS OF FULL FIBRE BROADBAND



VIDEO ON DEMAND

Stream HD or 4K TV, watch catch-up services, YouTube videos and live events without buffering



SOCIAL NETWORKING

Share user generated content quickly and easily to social media with fast upload speeds



UNRIVALLED GAMING

Download games instantly and smash your competitors with reduced lag time



REMOTE WORKING

Work from the comfort of your own home with no more interruptions to your connection



HD VIDEO CALLING

Keep in contact with colleagues, friends and family around the world, as if they're in the same room as you



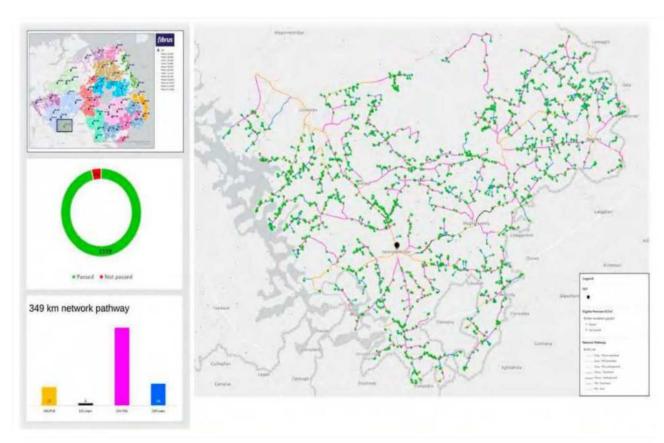
WIFI GUARANTEE*

 May require WiFi Boosters depending on the size of your home



THE FIBRUS DIFFERENCE...

- The Fibrus team has over **100 years experience** building, operating and commercialising fibre networks in the UK and Ireland.
- We are creating a new capability for NI that will attract inward investment.
- An aggressive implementation plan We will deploy early and at pace to maximise our returns and community benefits.
- Rural communities have waited long enough;. We have started building on the day the contract was signed, 6-9 months early.
- When we commit to passing premises, we are committing to a proven, designed and costed plan.





FIBRUS COMMITMENT FOR PROJECT STRATUM

A partnership based on transparency and delivering what we promise.

- 97% Coverage, taking NI to 99%, with a plan to get to 100%.
- Full Fibre Hyper-fast 100% Full Fibre 1,000 Mbs solution.
- Vertical take-off Build started <u>on the day</u> of contract signature.
- Total investment of £350m including (including commercial).
- Total NGA Network Build Cost, comprising full funding of £165m plus Fibrus capital contribution is £210.8m.

"A SME in Ballygawley, a student in Ballinamallard, or an employer in Bellaghy will have access to connectivity as good or better than their counterparts in Bloomsbury, Berlin, or Brooklyn"



OUR PEOPLE MAKE THE DIFFERENCE....











Conal Henry Chairman

...CEO of Enet taking it from start-up to its £200m acquisition by the Irish Infrastructure Fund in 2017, as CEO of Enet, Conal also led what is now known as NBI to become the winning bidder for the €2bn Irish National Broadband Plan.

Dominic Kearns CEO

...is an entrepreneur with interests in various telecoms start-ups. His most recent role was as CEO of b4b group, now it's Chair, one of Northern Irelands fastest growing telecoms and technology firms.

Steve Edwards Program Director

... Building fibre
networks for 30 years, led
BT's public funded (BDUK)
programs; successfully
delivered more than 40
public funded contracts, a
£2bn investment, passing
over 4m premises with
Fibre broadband
infrastructure.

Julian Simpson Stakeholder Engagement Manager

... experience in the development and delivery of a new Ultrafast Network in Belfast City Centre, and a new build gigabit capable FTTP network across business epicentres in Northern Ireland with b4b Networks.

Shane Haslem Commercial and Programme Director

...20+ years experience in the data and voice networking industry within the NI & GB market as GM and Head of network Solutions at Eir NI



OUR PEOPLE MAKE THE DIFFERENCE....









Conor Harrison Chief Operating Officer

...over 30 years' experience in the Telecoms sector across the US, Ireland and the UK, including, at Virgin Media as Programme Director for Virgin's Project Lightning, which has added 2.1m homes passed and 454,000 customers to Virgin Media across the UK.

Thomas Grant Chief Technical Officer

... as CTO of Enet he oversaw the design, build and operation of a full fibre carrier class network and the winning NBI bid for the RoI National Broadband Plan covering 540,000 homes.

Paul Doyle Stratum Build Director

... delivered Eircom's primary strategic programme to deploy Fibre infrastructure and open access Wholesale products and services, with Fibre Optic infrastructure deployment, for 1.2 million premises including rural deployments.

Jenny Nuttall Chief Finance Officer

.. Finance Director at BT
Wholesale and Head of Cost
Transformation and Networks
at BT Ireland, before joining
BDUK, where she developed
and successfully implemented
the 'value for money' strategy
BDUK



OUR KEY SUPPLY CHAIN PARTNERS







Industry leader established 2019.

Merger of IpONe and Syncom.

Designing and deploying gigabit networks.

Current supplier to Fibrus as well as Virgin Media, SIRO, enet and CityFibre.

Achieved accreditation for Quality, Environmental and Health and Safety Management System, in accordance with ISO9001, ISO14001 and OHSAS18001 in 2011.

Established in 1829 190 years' experience in the delivery of complex civil engineering solutions across the UK & Ireland.

Specialist in the Utilities sector and has achieved numerous CEF and RICS awards in the Utilities and Safety categories.

Local Northern Ireland presence and experience has enabled it to establish excellent working relationships with the statutory undertakers, utility providers and 3rd party stakeholders.

Viberoptix is a full-service Fibre and PIA network subcontractor. Established in late 2019 Recruited and trained 25 field operatives.

Developed a full recruitment, training and development programme guided by a full-time training manager and build the capacity to recruit and train 10 people per month from mid 2020.

Exclusive and preferential access to a pool of fibre and PIA operatives second to none in these islands.



OUR OFFER IS FOR A PARTNERSHIP BASED ON TRANSPARENCY...

Our 7 promises to you all

- 1. We are publishing our rollout plan today (6-months early).
- 2. Things will change When they do, we will inform and explain why.
- 3. We will communicate with Stakeholders with information and regular updates.
- 4. We have a website up and running with link to register interest and ask questions.
- 5. We will provide an Address level Checker for every premise in the next month.
- 6. We will get back to people in each community when we start building; when we expect to complete; and when services are ready.
- 7. We will invest in the communities we are working in.



PROJECT STRATUM



FIBRUS NETWORK DESIGN CHALLENGES

What we are doing is no mean feat – The size and scale of the challenge...



16,000km of fibre optic cable – distance from Belfast to South Pole

244,749 poles - our engineers will need to complete the equivalent of 222 summit climbs of Everest





76,000 properties

1,106 days to complete





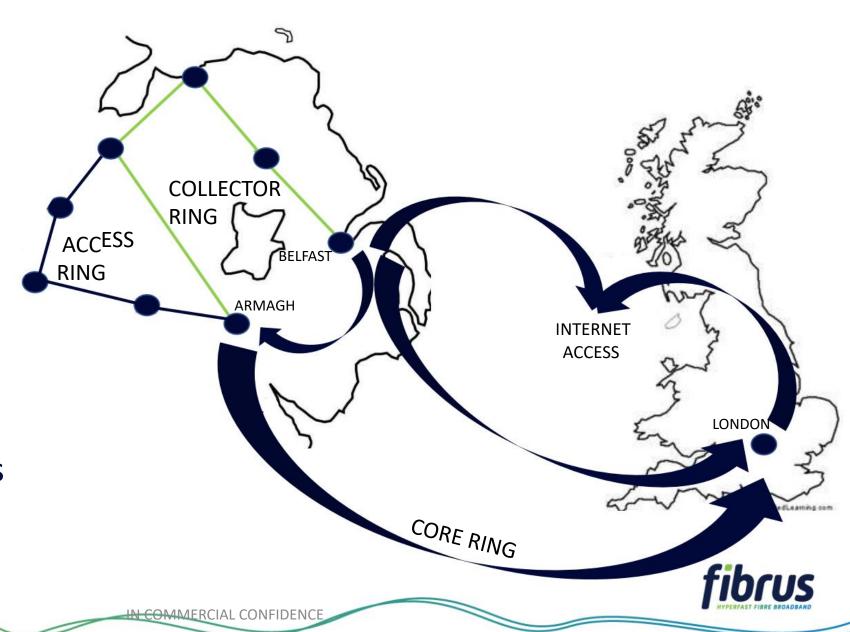
NETWORK BUILD – A HUGE ENGINEERING FEAT

• 76,232 Homes & Businesses

• 16,000 km Fibre Cabling

• 15,500 Access Chambers

• **2,500** Miles U/G Duct



Poles and Holes- Access Network Infrastructure

- Our build is expected to be around 80% on existing infrastructure; Duct and poles
- We are building a predominantly overhead distribution network
- This approach-
 - Helps us build faster and go further
 - Reduces cost- Increases the premises we can cover in the project
 - > Reduces disruption for communities
 - Helps to reduce waste and environmental impact
- Where we do need to dig or need traffic management we want to work with councils and DfI Roads to minimise impact on businesses and communities















PROJECT STRATUM



FIBRUS DEPLOYMENT AND PHASING

IN COMMERCIAL CONFIDENCE

Where and When... and Why

Stratum is a huge infrastructure build and technical challenge

- We are using existing infrastructure wherever possible to keep costs down and reach further into rural communities and deploy faster
- We are sequencing the rollout to enable early build in areas where the existing infrastructure is ready and backhaul available
- We are phasing the rollout to complete build in the most efficient sequence and best utilisation of resources.
- We will ramp up to build at around 1600km per Quarter, and complete before March 2024

Efficient technical design... we reach more premises Optimum economic solution... we reach more premises Logical sequencing ... we reach more premises



BUILDING THE NETWORK AT PACE...

AN INDUSTRY FIRST

BALLYCASTLE

Premises Passed 1,145

SPRING 2021

Total Fibre Cable Laid (Km)

COALISLAND

Premises Passed 2,121

KILLYLEAGH

Premises Passed 1,120

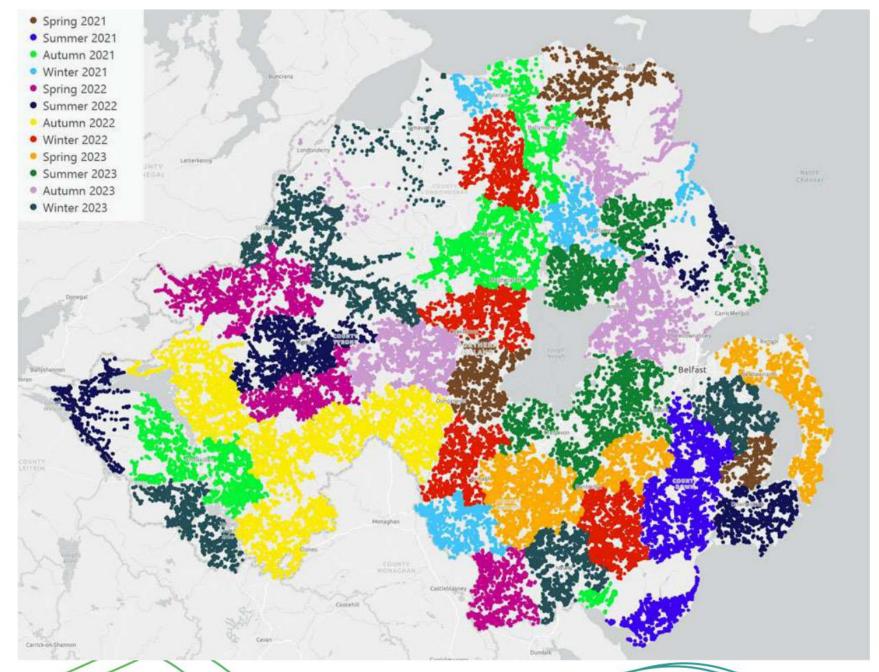


Total Premises Passed

4,386

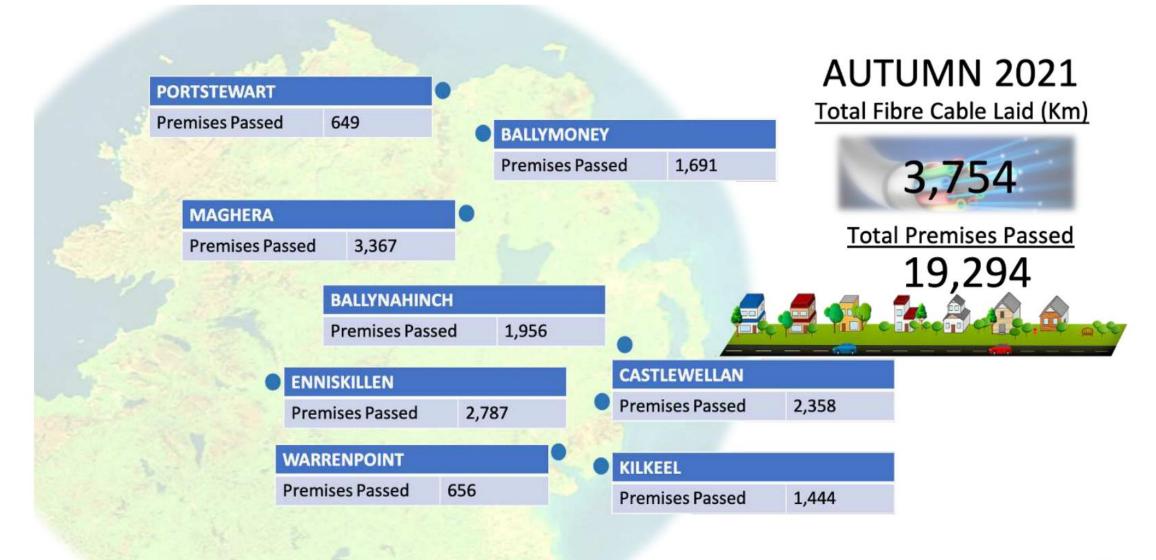








OUR BUILD POSITION WITHIN 6-9 MONTHS





IMPLEMENTATION TIMESCALES – THE FULL PLAN...

	SPRING	SUMMER	AUTUMN	WINTER
2021	COALISLAND KILLYLEAGH BALLYCASTLE	KILKEEL CASTLEWELLAN BALLYNAHINCH	WARRENPOINT MAGHERA PORTSTEWART ENNISKILLEN BALLYMONEY	CASTLEROCK KEADY CARNLOUGH CULLYBACKEY
2022	CROSSMAGLEN CASTLEDERG FINTONA NEWTOWNSTEWART	GARRISON OMAGH DOWNPATRICK LARNE	AUGHNACLOY FIVEMILETOWN KESH IRVINESTOWN NEWTOWNBUTLER	RATHFRILAND COOKSTOWN GARVAGH MOY
2023	KIRCUBBIN SEAHILL DROMORE LAURELVALE	BALLYSTRUDDER BLEARY RANDALSTOWN LOWER BALLINDERRY BROUGHSHANE	TEMPLEPATRICK CUSHENDALL CLOGH MILLS CLAUDY POMEROY	NEWRY DERRYLIN LIMAVADY GORTIN STRABANE MONEYREA



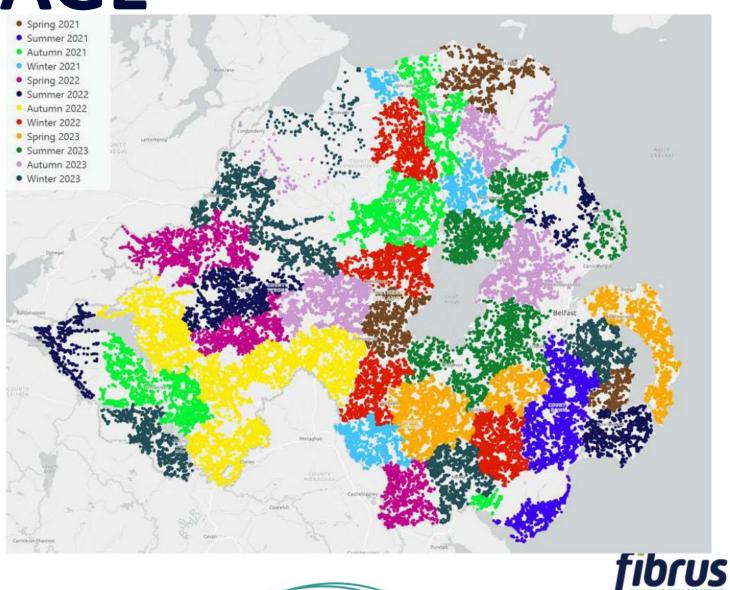
FINAL COVERAGE

TOTAL FIBRE CABLE LAID (KM)

15,848

TOTAL PREMISES PASSED

76,233



NGA COVERAGE POST STRATUM

ANTRIM AND NEWTOWNABBEY	99.8%
ARMAGH, BANBRIDGE AND CRAIGAVON	99.7%
CAUSEWAY COAST AND GLENS	99.6%
DERRY AND STRABANE	99.6%
FERMANAGH AND OMAGH	98.9%
LISBURN AND CASTLEREAGH	99.9%
MID AND EAST ANTRIM	99.7%
MID ULSTER	99.4%
NEWRY, MOURNE AND DOWN	99.6%
NORTH DOWN AND ARDS	99.9%

As good or better than most urban areas...

Westminster 92%
Birmingham 97%
Liverpool 96%
Manchester 96%



PROJECT STRATUM



STAKEHOLDER MANAGEMENT & COMMUNICATIONS

STAKEHOLDERS AND COMMUNITIES

- Fibrus has developed a detailed communications plan and will be engaging with local communities throughout the rollout.
- Quarterly Newsletters and site visits for Councillors and MLAs.
- Address level postcode checker for 'Where and When'.
- Opportunities as communities go live for local events photo ops, as local areas switch on.
- A Fibre Ambassador in each council area we are building in.
- Social contract to employ apprenticeships, graduates and new entrant trainees.
- Fibrus Community 'giving back' campaign £200k+















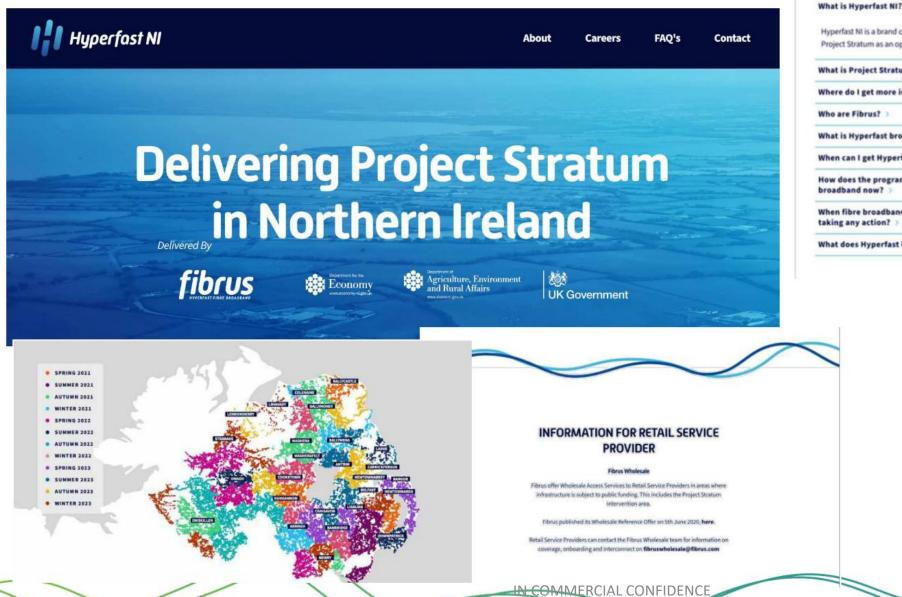








HYPERFAST NI - WEBSITE



FREQUENTLY ASKED QUESTIONS

what is Hypertast Ni	
Hyperfast NI is a brand	owned by Fibrus that is wholly focused on promoting information on the delivery of
Project Stratum as an o	pen access wholesale network.
What is Project Strat	um? >
Where do I get more	information? >
Who are Fibrus?	
What is Hyperfast br	oadband? >
When can I get Hype	fast broadband?
How does the progra broadband now?	mme plan its rollout- why can't you tell me if I am going to get fibre based
When fibre broadbar taking any action?	nd is available in my area, will my broadband simply get faster without me
What does Hyperfast	broadband cost? >

HOW DO I GET HYPERFAST?

CHECK BACK HERE IN EARLY 2021 FOR OUR POSTCODE CHECKER

Fibrus are providing a Wholesale network for the Project Stratum area.

Retail Service Providers offering services will be listed here.

GET IN TOUCH

Full Name"	final*	
Your name	Email address	
Postcode*	Type of Enquiry	
(Yoursele)	I have a question	
Your message		
Total Paris		



PROJECT STRATUM



Q&A SESSION

IN COMMERCIAL CONFIDENCE