

National Broadband Plan Project Overview

Limerick County Council

Donal Hanrahan – Chief Operating Officer, NBI Deployment 07 April 2021

Agenda

Project Introduction

- The National Broadband Plan
- Benefits
- Progress Update
- The Network

Limerick

- Overview
- Survey Status
- Broadband Connection Engagement
- Stakeholder Engagement
- Questions



The National Broadband Plan

Access

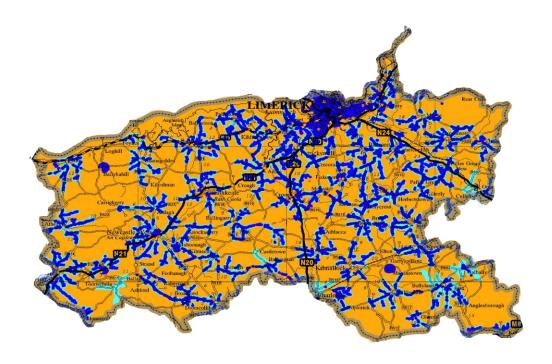
The aim of the programme is to ensure every premises has access to high-speed broadband.

Intervention Area

DECC identified all premises in the country that don't have access to high-speed broadband – this is called the Intervention Area or Amber area.

Intervention Area

NBI have been contracted to build a full fibre network to connect the 544,000+ premises ensuring no one is left behind.



AMBER areas - the target areas for the State intervention of the National Broadband Plan **BLUE areas** - where commercial operators are delivering or have indicated plans to deliver high speed broadband services.

National Broadband Ireland 4/6/2021

Ambitious Government Policy Gains EU Approval: Contract with NBI

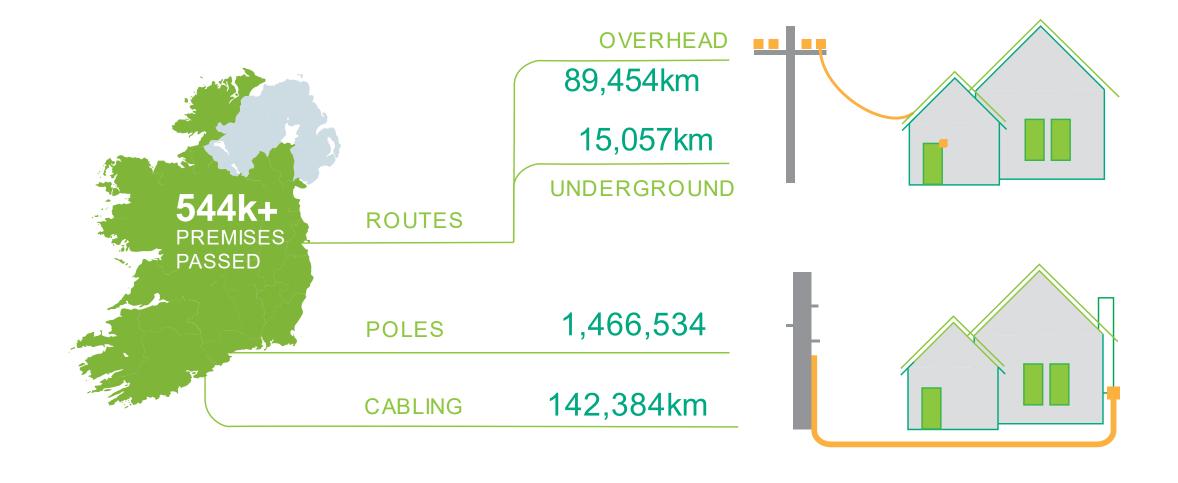
Our promise is to deliver a network that will be fit for future generations.

Commissioner Margrethe Vestager, in charge of competition policy said:

"The National Broadband Plan in Ireland is expected to address the significant digital divide between urban and rural areas in Ireland, enabling Irish consumers and businesses to benefit from the full potential of digital growth. This will help households and businesses in areas of Ireland where private investment is insufficient."



What we're delivering



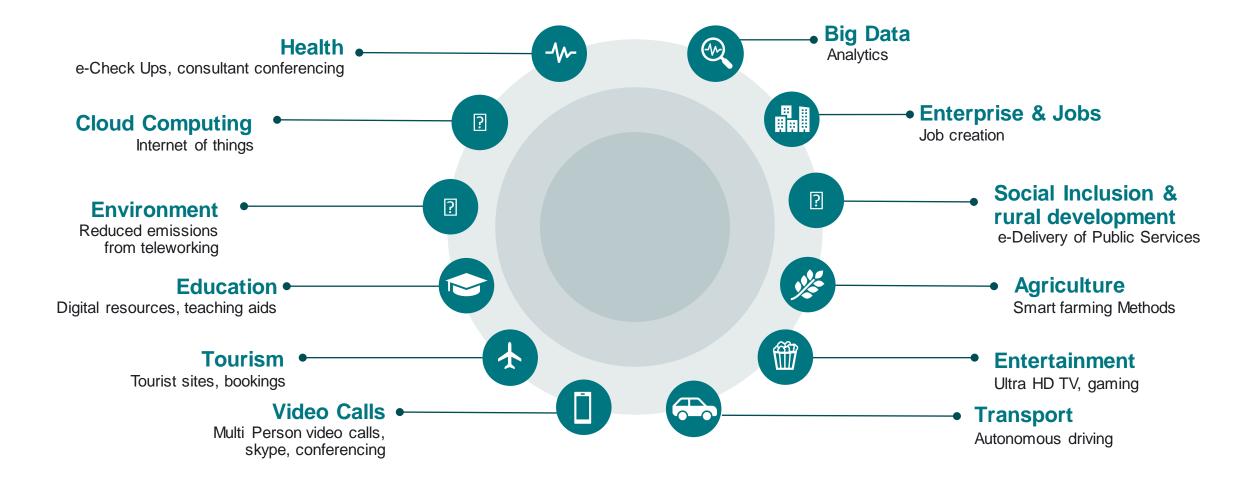
Building a Future-Proofed FTTH Network Our promise is to deliver a network that will be fit for future generations



Technology Decisions to Future-Proof the Country

- World leading technologies to future proof the network
- Use existing infrastructure, where possible, to create a sustainable and cost-effective deployment
- Utilise latest technology capable of delivering multiples of current demand in traffic
- Empower all service providers in Ireland with equal access to a future-proofed wholesale, open access network
- Customers to receive option of up to 1Gbps supported from day one with minimum speed of 500Mbps

The benefits of high-speed broadband



General Progress Update

• 198,000+ premises have been surveyed to date and 161,000+ premises progressing through or completed detail design.

 900+ premises available for connection in Carrigaline & Cavan Deployment Areas, increasing daily.

 42 Retail Service Providers have signed Contracts with NBI to deliver services once the network is built.

 293 BCPs installed by NBI with 165 BCP sites connected by Vodafone. 152 sites ready for public use. Also 36 schools live.

NBI team has grown to ~1000 with ~215 FTE

Surveying
 NBI will be surveying premises in all 26 counties in 2021.

Fibre Network Build
 Build works will be initiated in all 26 counties in 2021.

Programme
 It's a seven-year build programme to complete all.



We're connecting premises!

Launched first connection in **January 2021**

+900 connections available in the Carrigaline and Cavan Deployment Areas.

Premises available for connection increasing daily.





General Update Surveying continuing as planned:

- Actively working across 65 Deployment Areas (DA's).
- Build Underway in 25 DA's
- Surveying completed in 35 DA's
- Surveying underway in 5 DA's

Premises Surveyed = 198k

Premises currently in build = 92k

Premises ready for connection = 900+

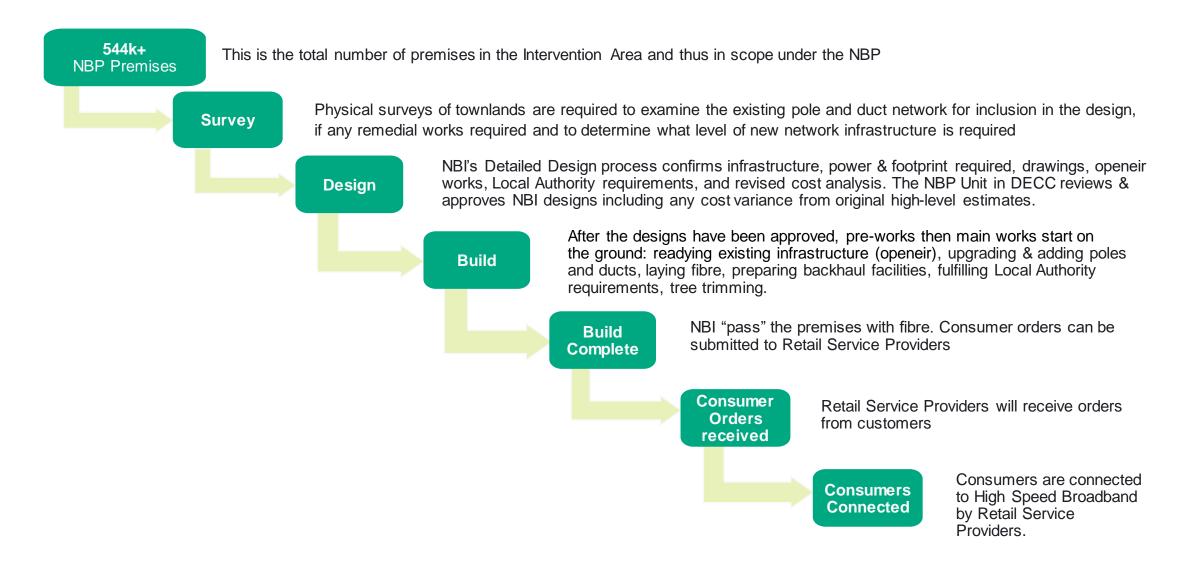
Build Underway - eir MR – Eir Make Ready Build Underway – TT – Tree Trimming

| Deployment Area | Premises | Status |
|--------------------|----------|-------------------------|
| Carrigaline | 4615 | Build Underway - eir MR |
| Galway | 3502 | Build Underway - eir MR |
| Cavan | 3738 | Build Underway - eir MR |
| Limerick | 4075 | Build Underway - eir MR |
| Ballinasloe | 3307 | Build Underway - eir MR |
| Tralee | 3167 | Build Underway - eir MR |
| Wexford | 3745 | Build Underway - eir MR |
| Kilcoole | 2836 | Build Underway - eir MR |
| Mullingar | 4109 | Build Underway - eir MR |
| Monaghan | 4355 | Build Underway - eir MR |
| Roscommon | 3591 | Build Underway - eir MR |
| Killarney | 3382 | Build Underway - eir MR |
| Carlow | 3544 | Build Underway - eir MR |
| Tipperary | 3316 | Build Underway - eir MR |
| Dundalk | 2770 | Build Underway - eir MR |
| Blessington | 5031 | Build Underway - eir MR |
| Castlebar | 2139 | Build Underway - eir MR |
| Midleton | 8446 | Build Underway - eir MR |
| Sligo | 2513 | Build Underway - eir MR |
| Waterford | 6351 | Build Underway - TT |
| Skerries | 2437 | Build Underway - TT |
| Ballina | 2678 | Build Underway - TT |
| Drogheda | 4173 | Build Underway - TT |
| Clonmel | 2143 | Build Underway - TT |
| Gort | 2618 | Build Underway - TT |
| Portlaoise | 3638 | Surv eying Complete |
| Dunboy ne/Clonee | 4455 | Surv eying Complete |
| Roscrea | 2415 | Surv eying Complete |
| Kilkenny | 2952 | Surv eying Complete |
| Athlone | 2160 | Surveying Complete |
| Letterkenny | 3118 | Surv eying Complete |
| Carrick-On-Shannon | 3576 | Surveying Complete |
| Longf ord | 3294 | Surveying Complete |

| Deployment Area | Premises | Status |
|----------------------|----------|---------------------|
| Youghal | 3371 | Surv eying Complete |
| Kilkishen | 3556 | Surv eying Complete |
| Adare | 4508 | Surv eying Complete |
| Bally carney | 4252 | Surv eying Complete |
| Johnstown | 2999 | Surv eying Complete |
| Borris | 4228 | Surv eying Complete |
| Athenry | 2026 | Surv eying Complete |
| Loughrea | 2386 | Surv eying Complete |
| Inv erin | 1075 | Surv eying Complete |
| Delvin | 2387 | Surv eying Complete |
| Castlegregory | 886 | Surv eying Complete |
| Tomhaggard | 3234 | Surv eying Complete |
| Dingle (Bally david) | 1816 | Surv eying Complete |
| Bally heigue | 1562 | Surv eying Complete |
| Emyvale | 1320 | Surv eying Complete |
| Clones | 1746 | Surv eying Complete |
| Redcross | 3236 | Surv eying Complete |
| Rathmore | 3483 | Surv eying Complete |
| Bally linan | 3343 | Surv eying Complete |
| Cashel | 2044 | Surv eying Complete |
| Kilgarv an | 2086 | Surv eying Complete |
| Creeslough | 3271 | Surv eying Complete |
| Templemartin | 6333 | Surv eying Complete |
| Newport (MO) | 1826 | Surv eying Complete |
| Castlegarron | 1446 | Surv eying Complete |
| Riverstown Rvn | 907 | Surv eying Complete |
| Carrowmorelacken | 1638 | Surv eying Complete |

| Deployment | | |
|-----------------|----------|---------------------|
| Area | Premises | Status |
| Enniskerry | 1390 | Surv eying Underway |
| Castlerea | 1151 | Surv eying Underway |
| Carrick-On-Suir | 1800 | Surv eying Underway |
| Mountrath | 1918 | Surv eying Underway |
| Carrickmacross | 3185 | Surv eving Underway |

NBI's Network Design and Build Process



How a network 'works'

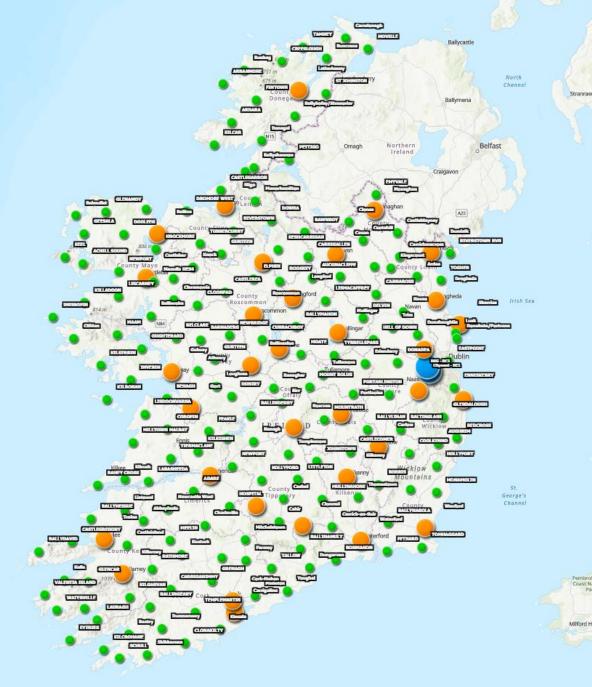
- When a premise connects to the internet, the data goes to a Local Exchange.
- From there the local exchange sends the data to the Regional Exchange.
- Then the data is sent to Data Centres, this is where to most internet traffic ends up. These are primarily in Dublin.
- Primary Data Path
- → Backup Data Path



How we're rolling out the NBI network

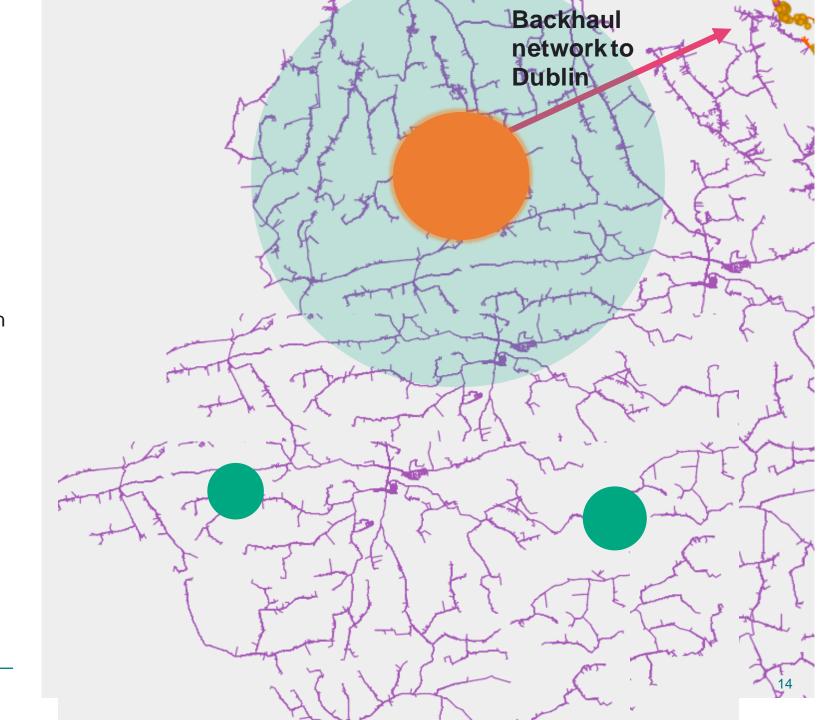
The NBI network is designed on 227 **Deployment Areas**, each with a **Local** or **Regional Exchange** at its core.

- 33 Regional Exchanges Regional Exchanges are our backbone and connect us directly connected to the Data Centres. We build these first.
- 194 Local Exchanges
 All local exchanges connect to their nearest
 Regional Exchange. These areas are built after the
 Regional Exchange area is built.
- Exchanges will all connect back to Data Centres, most are based in Dublin



Regional Exchanges

- Deployment Areas that have a Regional Exchange area are built first.
- This is to ensure we have a solid backhaul network connection back to Data Centres.
- Deployment Area around the Regional Exchange is ~20km in radius, depending on the fibre route.

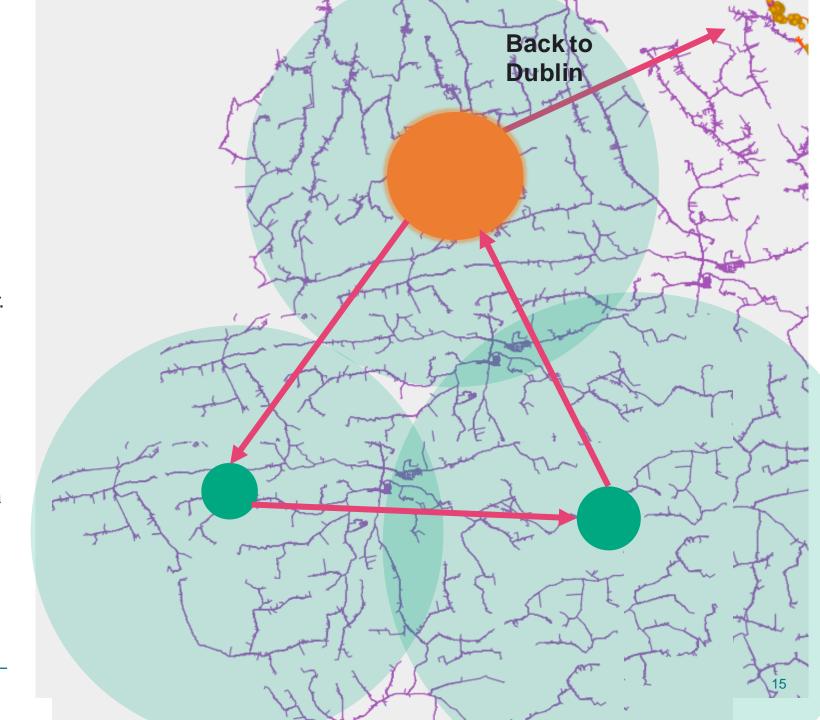


Local Exchanges

- Once the Deployment Area with the Regional Exchange is built, we then connect to an adjacent Deployment area with a Local Exchange and build out from there.
- Each Deployment Area is ~20km in diameter.
- Local Exchanges send data via the Regional Exchange to the Data Centres.

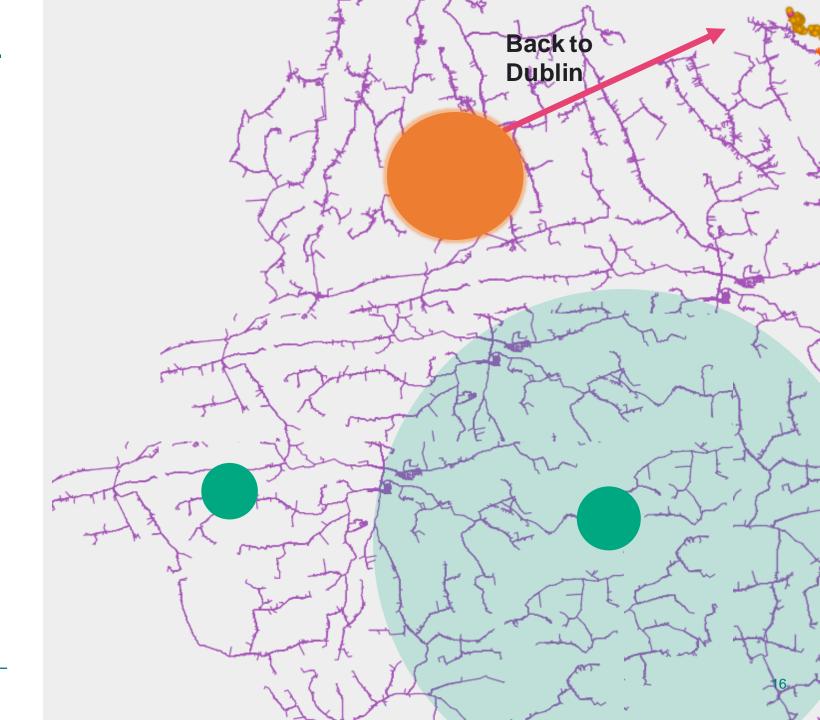
Why not build Local Exchanges first?

 Building Local Exchanges first would mean a delay in getting premises connected as the link to the Data Centres via the Regional Exchange would be missing.



If we built a Local Exchange first.

 If we built a Local Exchange first, there would be no connection back to the Data Centres.

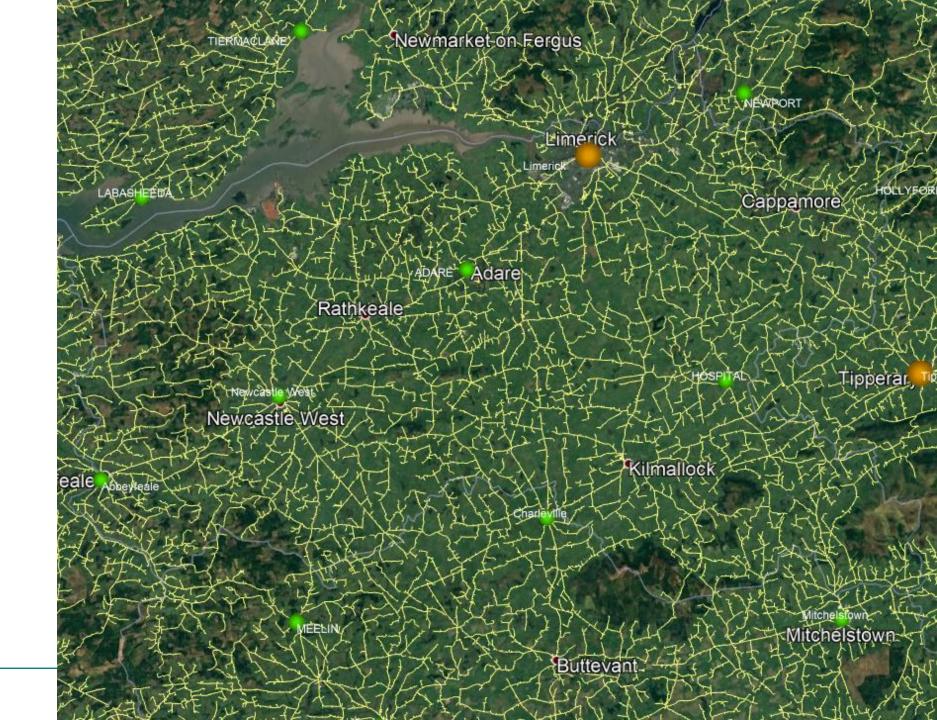




County Limerick

Co. Limerick Overview

- There are ~21,231 premises in Co. Limerick without access to high-speed broadband.
- This represents 22% of the total premises in the county.
- Government will invest ~€84m in building NBP in Co. Limerick.

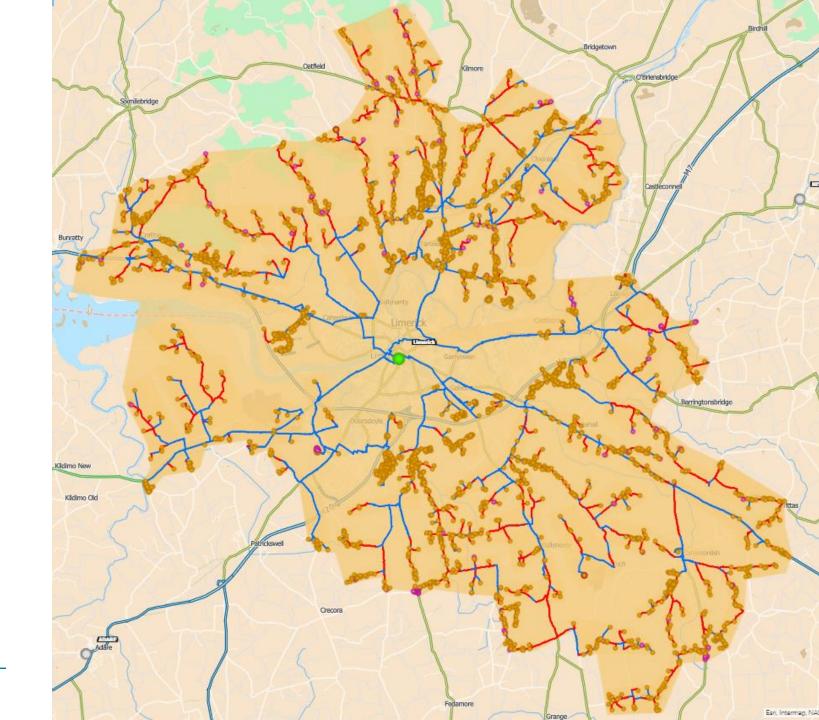


County Limerick Network

| Deployment Area | # in Limerick | Estimated Connection timeline | STATUS as of 19/02 |
|-----------------|---------------|-------------------------------|--------------------|
| Abbeyfeale | 1390 | твс | SURVEY_PENDING |
| ADARE | 3450 | July 2022 - December 2022 | SURVEY_COMPLETE |
| Charleville | 1754 | TBC | SURVEY_PENDING |
| HOLLYFORD | 428 | TBC | SURVEY_PENDING |
| HOSPITAL | 2602 | TBC | SURVEY_PLANNED |
| KILLAVULLEN | 4 | ТВС | SURVEY_PENDING |
| LABASHEEDA | 36 | TBC | SURVEY_PENDING |
| Limerick | 1633 | June 2021 - August 2021 | BUILD UNDERWAY |
| Listowel | 491 | TBC | SURVEY_PLANNED |
| MEELIN | 365 | TBC | SURVEY_PENDING |
| Mitchelstown | 831 | TBC | SURVEY_PENDING |
| Newcastle West | 3652 | ТВС | SURVEY_PENDING |
| NEWPORT | 1453 | ТВС | SURVEY_PENDING |
| Tipperary | 369 | August 2021 - October 2021 | BUILD UNDERWAY |

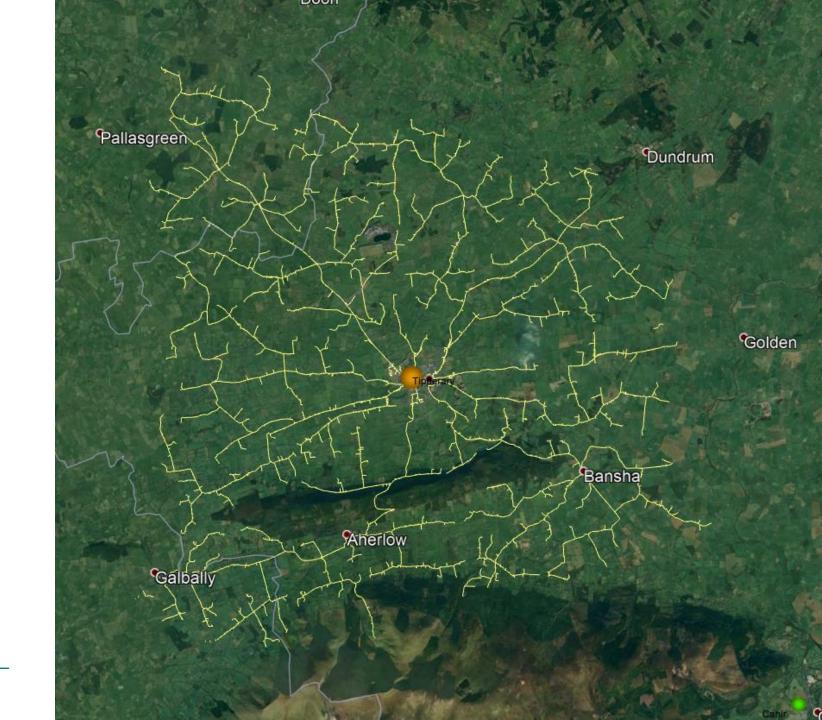
Limerick Deployment Area

- Status: BUILD UNDERWAY
- 2940 premises in Limerick Deployment Area,
 1633 premises are in Co. Limerick.
- Estimated Connection Dates between:
 June 2021 August 2021



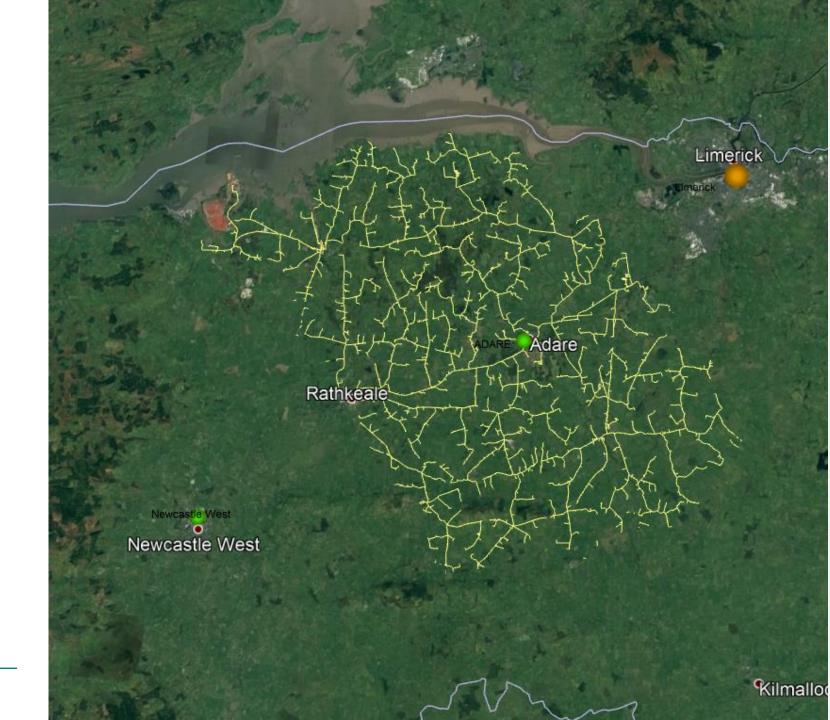
Tipperary Deployment Area

- Status: BUILD UNDERWAY
- 2766 premises in Tipperary DA,
 369 premises in Co. Limerick.
- Estimated Connection Dates between:
 August 2021 October 2021



Adare Deployment Area

- Status: **SURVEY COMPLETE**
- All 3450 premises are in Co. Limerick.
- Estimated Connection Dates between: July 2022 – December 2022





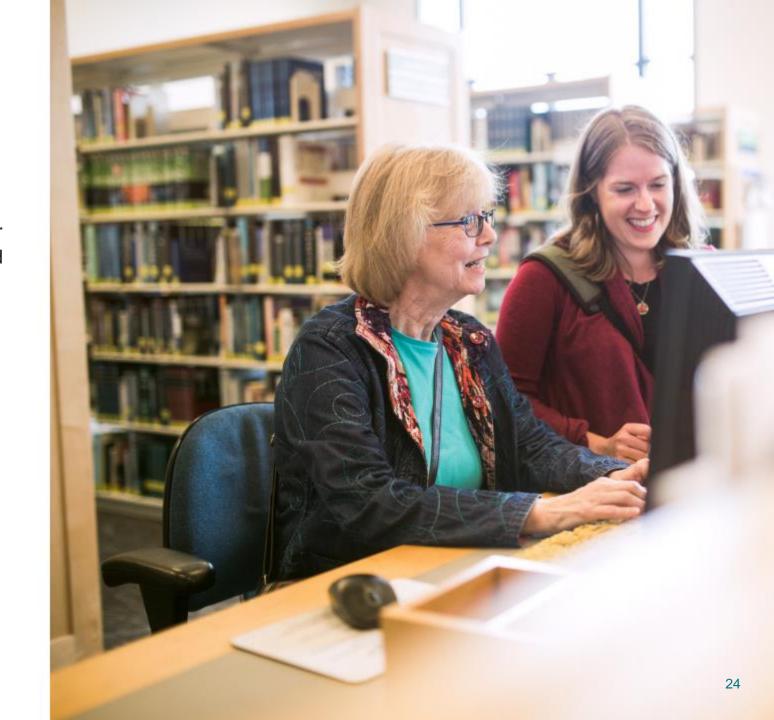
BCP Update

Broadband Connection Points

In 2020 and early 2021 NBI will also connect 270+ Broadband Connection Points (BCPs)

- Sites are located across all 26 counties
- These points will provide free high-speed internet access with many offering remote working capabilities.
- BCPs have been selected by local authority BBOs and submitted to the Department of Rural & Community Development. They are subject to change & schools will only provide educational access for pupils or any post school activities.
- The objective of BCPs is to ensure high speed connectivity for those in the IA in the short term

- 293 BCPs connected by NBI.
- 165 Vodafone BCP sites live, plus
- 36 schools



National BCP Launch Thursday October 9th





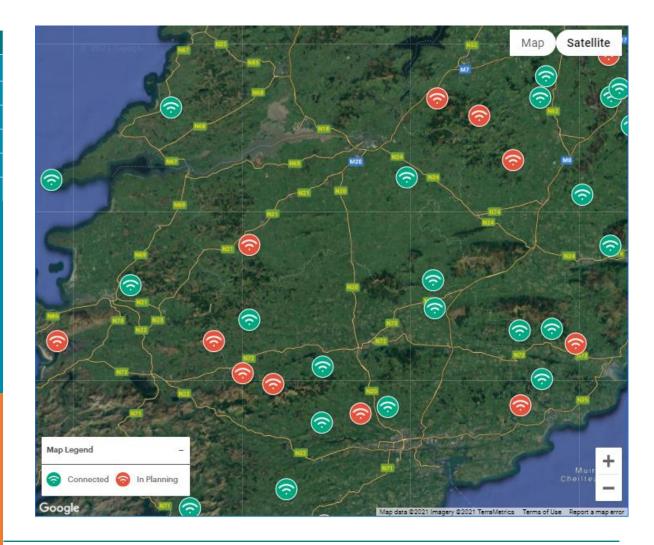
BCPs & Primary Schools in County Limerick

14 BCP locations & **21 schools** are in scope to connect to high-speed broadband:

The full list of BCPs is available on www.nbi.ie

| BCPs for Connection | Phase |
|---------------------------------------|---------|
| Caherline Community Centre | LIVE |
| Glenmore Community Centre | LIVE |
| Coolcappa Community Centre | Planned |
| Gerald Griffin Resource Centre | Planned |
| Askeaton Community Centre | Planned |
| Cappamore Community Centre | Planned |
| Galbally GAA Club | Planned |
| Glenroe GAA Club | Planned |
| Hospital Herbertstown Gaa Club | Planned |
| Kildimo Gaa Club | Planned |
| Patrickswell Gaa Club | Planned |
| Shanagolden Education Resource Centre | Planned |
| Rathkeale Riverside Training Workshop | Planned |
| Halla Íde Naofa | Planned |

| Schools for Connection | Phase |
|--------------------------------|-------------|
| Limerick East Educate Together | In Progress |
| Gerald Griffin National School | In Progress |
| Tinnatarriff National School | In Progress |
| Knocknadea National School | In Progress |
| Coolcappa National School. | In Progress |
| Anglesboro National School | In Progress |
| Mountcollins National School | In Progress |
| Killoughteen National School, | In Progress |
| Killinure National School | In Progress |
| Scoil Tobar Padraig | In Progress |
| Dromtrasna N S | In Progress |
| Donoughmore Ns. Donoughmore | In Progress |
| Caherline National School | In Progress |
| Lough Gur National School | In Progress |
| Croagh National School | Planned |
| Scoil Aine Naofa | Planned |
| Scoil Naomh Iosef | Planned |
| Hospital Ns | Planned |
| Convent Of Mercy N S | Planned |
| Shanagolden N S | Planned |
| Scoil Naomh Muire | Planned |



Stakeholder Engagement





Local Authorities

BBOs
County CEO & Team
Roads/Planners

Council members

Local Enterprise Offices

An Garda Síochána



Communities

Town Hall Events/Webinars
Roadshows
Public Participation Networks
Sporting & other associations
(GAA, Soccer, Bridge Clubs)
Broadband Champions &
Ambassadors



Representative Bodies

IFA / ICA / Age Action

Macra na Feirme

IBEC

Regional development bodies

Chambers of Commerce

Muintir na Tíre

An Post



Sign up on www.nbi.ie to keep up to date with developments in your area

Email for political reps: reps@nbi.ie

Contact us on: 0818 624 624

email: contactus@nbi.ie