

17 January 2022

Ms Sarah Cremin  
Secretariat  
Committee of Public Accounts  
Leinster House  
Dublin 2  
D02 A272

**Department of the Environment, Climate and Communications (Vote 29)**

**Ref: S0660 PAC33**

Dear Ms Cremin,

I refer to your letter of 13 December 2021 regarding correspondence from this Department providing further information arising from the PAC meeting on 14 October 2021.

The information requested in the aforementioned letter is set out below.

**1. DOES NATIONAL BROADBAND IRELAND (NBI) CARRY THE COST OF UPGRADE/REPAIR IN RELATION TO MAINTENANCE OF THE EXISTING INFRASTRUCTURE**

It is a condition of the State Aid Guidelines for Broadband that duplication of existing infrastructure is avoided where possible.

NBI has entered into a 25-year rental agreement with eir and enet with regard to the use of their infrastructure to ensure the timely delivery of the NBP at least cost to the State. As part of the rental agreements, eir and enet are fully responsible for the maintenance and upkeep of infrastructure in use by NBI. The full cost of this is included in the annual rental charges to NBI. In the case of eir, the pole and duct infrastructure is fully regulated by ComReg who oversee the appropriate recovery of costs through the rental charges set by eir.

**2. WHAT ARE THE ANNUAL COSTS OF MAINTAINING THE EXISTING INFRASTRUCTURE**

The Department does not have this information as that is a matter for eir and enet, who own the infrastructure involved.

### 3. WHAT ARE THE ANNUAL COSTS OF USING THE EXISTING INFRASTRUCTURE

The lease agreement in place between eir and NBI in relation to the use of the existing infrastructure is a commercial agreement between two private entities with fees charged regulated by Comreg.

There are approximately 1.5 million poles across the State that NBI may rent in order to serve all homes in the Intervention Area. NBI will also use around 10,000 kilometres of eir ducting and this has various charges depending on whether the ducting is in the road, on the footpath or in the verge; again. While the aggregate annual rental to be paid by NBI to eir could be in order of €20m - €30m per annum once the network is fully deployed; the actual annual cost of using the existing infrastructure will not be known until the network is built and a full inventory of all poles and ducts in use by NBI is known. The final costs will also be dependent on reviews by ComReg which generally take place every five years and which can result in rental prices being either increased or reduced.

### 4. CLARIFICATION REGARDING THE EXACT NATURE OF COMPLICATIONS ASSOCIATED WITH COVID-19 AND THEIR IMPACT ON PROJECT TIMELINES

Areas in which NBI has faced challenges as a result of Covid-19 pandemic and for which NBI has had to mitigate against include:

- Mobilisation of key contractors due to travel restrictions and operations
- One of NBI's specialist key contractors from the UK postponed establishing its Irish operations indefinitely due to travel limitations
- Supply chain and logistic delays – both nationally and internationally - from the many suppliers used by NBI
- During the start-up phase of the project there were delays encountered in the interaction between NBI and its design contractors; this interaction would have included design specification, detailed design reviews, design process development all of which were impacted due to remote working
- Delay in the development of IT system processes and software design due to remote working
- The recruitment of key personnel as NBI and its contractors scale up – including challenges associated with attracting talent, then on-boarding and training of resources
- Travel restrictions and availability of overnight accommodation for contractors across Ireland
- Access to islands and some buildings such as schools and GAA clubs, which form part of NBI's delivery of Broadband Connection Points
- Resourcing impacts due to employees and/or contractors falling ill with Covid-19 or self-isolating due to being a close contact. There have been instances of entire crews being stood down as a result of these circumstances.

NBI continued to face many of these challenges in 2021 particularly due to ongoing Covid-19 restrictions earlier last year. They have, however, implemented a number of measures to help reduce the impact including:

- Increasing the rate of pole replacement and duct remediation per month with Openeir

- Bringing onboard additional NBI resources
- Bringing onboard additional contractors
- Earlier procurement of materials used in the build stages
- Sourcing alternative supply chain providers and logistics paths
- Manual application and oversight of IT system processes until automated development is in place
- Engagement with the Department of Rural and Community Development and local communities to gain access to islands and other locations for Broadband Connection Point installations.

The Department worked closely with NBI to put in place an interim remedial plan (IRP) for 2021 as defined under the Contract to address the impacts of the Covid 19 pandemic on the project. This plan addressed delays experienced to the NBP rollout and re-baselined milestones for 2021. Work is ongoing to re-baseline milestones for 2022 and beyond to address the knock-on impacts and ongoing disruption.

NBI is using best endeavours to mitigate the impacts; however in Q4 2021 and continuing into the New Year, NBI had seen a rapid rise in Covid-19 infections and close contact exposures.

#### **5. A COPY OF NBI'S REMEDIAL PLAN FOR 2022 WHEN IT IS PROVIDED TO THE DEPARTMENT**

Under the terms of the contract NBI is required to notify the Minister where they foresee a delay to the rollout of the network and subsequent delay to meeting milestones set out in the Contract. Under the Contract where NBI notify a delay they are then required to set out the root cause analysis for the delay and actions they will take to mitigate the cause of delay. This process of engagement informs the Remedial Plan which NBI are required to submit each time they become aware of potential delays. A remedial plan was submitted and agreed in early 2021 to re-baseline milestones for 2021. A similar exercise is currently underway for 2022 milestones and is expected to be concluded in February. Relevant details including updated targets for Premises Passed to the end of the year, issues arising that caused delays and the actions NBI is taking to mitigate these impacts, will be provided to the Committee at that stage.

#### **6. A DETAILED BREAKDOWN OF €24.5M FOR NBP PROCUREMENT ADVISORY SERVICES**

A detailed breakdown of the cost was provided in correspondence of 12 November 2021 and is included for reference in this letter at Appendix 1. Set out below is a detailed description of the types of services received under each category of expenditure.

Work on the National Broadband Plan commenced in 2014 and continued until the contract was concluded in 2019. The Department's NBP Team was supported by external experts and advisers, who provided advice and assistance during this time.

The Department's main advisers - Analysys Mason, KPMG, Mason Hayes & Curran and PwC – provided advice at each stage of the NBP Procurement process, which commenced in early 2016, and were also involved in detailed discussions with the bidders throughout the procurement process. Other advisers were involved at specific stages during the NBP Procurement process. A

Since the NBP contract was signed, the Department has carried out procurements, in accordance with public procurement guidelines, to appoint new advisers to assist the NBP Team with the management and governance of the NBP contract. As a result of these procurements, Ernst & Young (EY) was appointed as commercial and financial advisers, William Fry was appointed as legal advisers and Analysys Mason re-appointed as technical advisers.

#### **Breakdown of Advisory Services provided**

**Achilles Procurement Services** provided specific procurement advice on one occasion in 2016, regarding procurement options.

**Analysys Mason** provided technical guidance, expertise and advice in relation to the technical aspects of the NBP procurement process. Key outputs included:

- Development of Contract Technical Schedules
- Technical Solution evaluation
- Reference Offer evaluation
- Project Cost Model (PCM) compliance and robustness evaluation
- Mapping and monitoring of Intervention Area
- Input to State Aid issues
- Technical Solution Assessment Methodology report
- Final Tender PCM compliance and robustness evaluation

In addition to technical advice, Analysys Mason participated in meetings with bidders during the Competitive Dialogue and the Solution phases of the procurement process, where details of bidders proposed technical solutions were outlined.

**Deloitte Ireland LLP** provided advice on taxation and VAT matters during the NBP procurement process. Activities included:

- Providing assistance to the NBP procurement team in preparing tender documentation and during competitive dialogue
- Review and advice pertaining to tax and VAT assumptions in project financial model
- Review of bidder taxation assumptions in order to assess compliance with tender requirements
- Review of tax structures in bidder models
- Participation in bidder engagement on contract schedules in relation to taxation matters.
- Advice on the operation of VAT and RCT (Relevant Contracts Tax).

**Here & Now Business Intelligence** provided advice on strategic communications and stakeholder engagement matters during the NBP procurement process. The advice included:

- Advice on and assistance with dialogue between the Department and bidders during the NBP procurement process
- Advice on the communication and engagement strategy including plans and campaigns to stimulate demand to be proposed by bidders during the procurement process
- Advice on and input to the evaluation process for the strategic communications and engagement strategy proposed by bidders during the procurement process

**KPMG** provided advice and assistance regarding the development of the NBP procurement process. KPMG also provided financial and commercial advice throughout the procurement process including the competitive dialogue process with bidders.

The key outputs and reports from KPMG included:

- Funding Report
- Ownership Report
- Budget Model
- Governance Report
- Project Re-appraisal report
- Single Bidder Assessment Methodology report
- Commercial aspects of NBP contract

KPMG provided advice and assistance during the evaluation of bids at the Invitation to Submit Detailed Solution (ISDS) and Invitation to Submit Refined Detailed Solution (ISRDS) stages of the process.

KPMG also provided specialist personnel, such as the project manager and commercial advisors, under a separate contract, to support the Department's NBP Team during the NBP Procurement process.

**Marsh Ireland Ltd** provided advice on insurance matters during the NBP procurement process.

Advisory services included:

- Advice on the types and levels of insurance to be put in place by the successful bidder for the NBP contract
- Advice on the adequacy of insurance proposed by bidders for the NBP contract
- Advice on how the Department can monitor the level of insurance put in place by the successful bidder for the NBP contract
- Preparation of a draft contract schedule for the NBP contract setting out the types and levels of insurance required by the successful bidder.

**Mason Hayes & Curran (MHC)** provided legal advice throughout the NBP procurement process. In addition to providing detailed legal advice, MHC was also extensively involved in the drafting and review of the NBP contract schedules and in negotiations with the Preferred Bidder's legal team. MHC was involved in discussions with bidder teams during the Competitive Dialogue phase, Invitation to Submit Detailed Solution (ISDS) phase and Invitation to Submit Refined Detailed Solution (ISRDS) phase. MHC provided regulatory and State Aid advice and was also involved extensively in the period leading to the successful conclusion of the contract with the Preferred Bidder.

**PricewaterhouseCoopers (PwC)** was involved extensively in the development of the Intervention Strategy and other key reports during the procurement process.

Key outputs and reports from PwC included:

- Intervention Strategy report
- Procurement Strategy report

- CBA report and CBA model, which was regularly reviewed and updated throughout the procurement process
- The initial State Aid report
- Commercial operators' assessment methodology report

PwC also provided State Aid expertise and assistance during the State Aid application process and supported the NBP team during much of its engagement with the European Commission.

**Prisa Consulting** provided technical, commercial, economic, financial and procurement advice in the early stages of the NBP project. This advice mostly occurred prior to the commencement of the NBP Procurement process in 2016.

**RPS Consulting Engineers** provided environmental advisory services during the NBP Procurement process. These activities included:

- Carry out a Strategic Environmental Assessment and an Appropriate Assessment in respect of the NBP Intervention Strategy.
- Engagement with key stakeholders on environmental matters during the Competitive Dialogue process
- Ensuring that the Minister is fully compliant with his statutory environmental obligations
- Identifying the environmental obligations and mitigation measures that should be included in the NBP contract.

**Other more limited advice with specific expertise in the regulatory field was provided by Independent contractors over the period.**

## **7. A SCHEDULE OF WORKS FOR THE 679 PRIMARY SCHOOLS INCLUDING LOCATIONS**

An update on primary schools connectivity is provided in Appendix 2, attached.

## **8. DETAILS OF THE ARRANGEMENTS AND CONSEQUENCES OF TRANSPORTING WASTE FOR LANDFILL AND INCINERATION GIVEN THE LOCATION OF THESE FACILITIES IN THE EAST OF THE COUNTRY**

Ireland is divided into three regions (Connacht-Ulster, Southern, and Eastern-Midlands) for the purposes of forward planning for waste management. Local authorities are statutorily responsible for the preparation of waste management plans within these regions. A waste management office has been established in each region to formulate and co-ordinate the implementation of these plans. These plans must be evaluated every six years and revised as appropriate. The waste regions are currently engaged in this process with a view to the publication later this year of a new "National Waste Management Plan for a Circular Economy". A public consultation on the proposed new plan was held in 2021. The Plan will examine national and regional capacity in the context of waste generation projections.

With regard to specific facilities, residual municipal waste in Ireland is managed through disposal at licenced landfill facilities, recovery at licensed thermal treatment facilities (waste to energy plants), recovery at licensed coprocessing facilities (cement kilns), or export for recovery at licenced thermal treatment facilities in other countries.

There are currently three active licenced landfills in Ireland, and two active licenced waste to energy plants. All are located in the eastern and midlands waste region which accounts for approximately 50% of the national population and generates in excess of 50% of the country's municipal waste.

The construction and operation of these facilities in Ireland requires consent under both the planning system and the waste licencing system operated by the Environmental Protection Agency. The environmental impacts of facilities, and relevant conditions pertaining to their operation including transport related impacts, are addressed under these consent regimes.

## **9. CLARIFICATION REGARDING CALCULATIONS FOR GRANTS PROVIDED UNDER RETROFITTING SCHEMES AND LOCAL AUTHORITIES' FINANCIAL INPUT**

### **The National Retrofit Plan**

The National Retrofit Plan (published as part of the Climate Action Plan 2021) sets ambitious targets to retrofit 500,000 homes to a Building Energy Rating (BER) of B2/ cost optimal or carbon equivalent, and to install 400,000 heat pumps in existing buildings by the end of 2030. These targets represent a very significant increase in both the volume and depth of retrofit activity in Ireland and are in line with the Programme for Government. The Plan sets out a range of measures to tackle systematically the main barriers to retrofit and thus improve the energy efficiency of Ireland's residential building stock.

### **Estimated average and total costs**

The work required and associated cost of bringing a home to a BER B2 efficiency level is determined by a number of factors including:

- the size and type of home (apartment, terrace, semi-detached, detached, bungalow);
- wall type (solid or cavity); and
- the age and starting condition of the home (when constructed and any works carried out subsequently).

For instance, the average cost of upgrading a B3-rated house to a B2 will be less than the cost of upgrading a similarly sized G-rated house. In the same way, the cost of installing a heat pump is dependent on a range of variables including building type and size as well as the extent of replumbing required.

For these reasons, the calculation of the estimated cost of the future programme of retrofit work is challenging because there is no certainty as to which 500,000 houses out of the total housing stock in the State will be retrofitted by 2030. However, estimates compiled for the Department indicate that the cost to retrofit the fabric of a house to a BER B2 standard and install a heat pump can range between €14,000 and €66,000. Using a cross-section of the entire housing stock, this would imply a total cost of up to €28 billion for the retrofit programme.

It is important to note that the estimate of the total cost is sensitive to the mix of houses to be retrofitted. In addition, this cost estimate is based on several assumptions, including an annual construction inflation rate of 7%.

### National Retrofit Plan and National Development Plan financial commitment

The National Retrofit Plan commits approximately €8 billion of National Development Plan/Exchequer funding (including €5 billion in carbon tax revenues) for SEAI grant schemes<sup>1</sup>. The Department is also in the process of applying for funding from the European Regional Development Fund to support a further expansion of delivery of upgrades to homes in energy poverty in the coming years. The National Retrofit Plan also commits to the introduction of measures to make home energy upgrades more affordable for households. SEAI grant schemes will continue to be a central element of the Government's strategy to encourage homeowners to retrofit their homes and a new National Retrofit Scheme will be launched in the coming weeks.

The National Retrofit Plan provides clarity on the annual allocations for the coming years as well as the total allocation to the end of the decade, giving the sector the confidence to plan and expand. This Government funding will also facilitate residential retrofit grant funding being made available across calendar years, thus enabling year-round business continuity. The annual allocations set out in the table below will primarily be used to fund the expansion and enhancement of SEAI residential and community retrofit schemes, including energy poverty schemes as well as other initiatives to support retrofit. Importantly, the consistent and very significant year-on-year increases in the annual allocations will help the sector to grow in a sustainable way.

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030
Planned allocation (million)	€202	€291	€380	€469	€641	€898	€1,257	€1,760	€2,000

While these allocations represent an unprecedented level of funding for retrofit, it is clear that Exchequer funding alone will not be sufficient to cover the entire cost of achieving our national targets. For that reason, the National Retrofit Plan commits to the introduction of a low-cost loan scheme for residential retrofits in mid-2022. The scheme is outlined below.

### Residential Retrofit Low Cost Loan Scheme

The Department is engaging with the Department of Finance, the Strategic Banking Corporation of Ireland and the EIB in relation to the development of a residential retrofit loan guarantee scheme. The loan guarantee has been selected for inclusion in Ireland's National Recovery and Resilience Plan and will be co-funded by the EU Recovery and Resilience Facility and Exchequer funding.

The loan guarantee will provide risk protection to retail credit institutions participating in the scheme. This will enable the credit institutions to offer loans with reduced interest rates and make comprehensive home energy efficiency upgrades more affordable to private homeowners and non-corporate landlords. As a result, households will be able to enjoy more comfortable and healthier homes with a lower carbon footprint.

<sup>1</sup> As indicated below, additional funding will be provided by the Department of Housing, Local Government and Heritage to support the Local Authority Retrofit Programme.



It is estimated that the loan guarantee will help to mobilise a loan portfolio of up to €500 million, subject to the finalisation of the specific features of the scheme which are still under development.

The scheme is expected to help to increase the volume of retrofit activity within the State and improve the recovery and resilience of the supply chain within the retrofit sector. It will also signal to the banking sector new viable business opportunities associated with the transition to a low carbon economy.

#### **Local Authority Retrofit Programme**

Energy efficiency upgrades of local authority housing stock are funded by the Department of Housing, Local Government and Heritage as part of the Local Authority Energy Efficiency Retrofit Programme. The National Development Plan funding envelope referred to above does not include funding, which the Department of Housing, Local Government and Heritage will in addition provide to local authorities to upgrade the energy efficiency of their housing stock.

Budget 2022 provided that an allocation of €85 million will be invested by the Minister for Housing, Local Government and Heritage as part of the Local Authority Retrofit Programme in 2022. This will deliver approximately 2,400 B2 retrofits of Local Authority homes next year.


Further information on the Local Authority Retrofit Programme is available from the Department of Housing, Local Government and Heritage.

#### **10. FURTHER DETAILS INCLUDING A BREAKDOWN OF THE ADVISORY SERVICES REFERENCED AT APPENDIX 1.**

See reply to Question 6 above.

Should you require any clarification or additional information, please do not hesitate to contact Ms. Deirdre King in my Department, by email at [deirdre.king@DECC.gov.ie](mailto:deirdre.king@DECC.gov.ie) or by phone at 087 7053711.

Yours sincerely,



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**Mark Griffin**  
**Secretary General**

## Appendix 1 – Expenditure on NBP Procurement Advisory Services

Company	Nature of Advisory service	Expenditure € (Excluding VAT)					Total Expenditure (Incl VAT)
		2016	2017	2018	2019 (to November)	Total	
Achilles Procurement Services	Procurement	0	4,200	0	0	4,200	5,166
Analysys Mason	Technical	448,901	1,058,977	1,131,719	796,216	3,435,813	4,230,826
Deloitte Ireland LLP	Tax and VAT	4,400	13,200	42,900	39,125	99,625	122,539
Here & Now Business Intelligence	Communications	6,000	4,800	13,200	0	24,000	29,520
KPMG	Financial and procurement and specialist personnel	893,184	3,884,371	3,837,997	1,228,425	9,843,977	12,114,278
Independent contractor	Communications	0	3,500	0	0	3,500	4,305
Marsh Ireland Ltd.	Insurance	0	0	9,375	55,100	64,475	79,304
Mason Hayes & Curran	Legal	371,143	2,444,404	1,245,094	1,128,458	5,189,099	6,368,283
MON Legal Consulting	Legal	0	0	0	3,330	3,330	4,096
PricewaterhouseCoopers	Economic and strategic advice	116,379	617,827	380,088	0	1,114,294	1,370,582
Prisa Consulting	Technical, commercial, economic, financial and procurement	9,000	0	0	0	9,000	11,070
Independent contractor	Telecommunications regulatory advice	0	0	5,000	0	5,000	6,150
RPS Consulting Engineers	Environmental	22,205	35,114	25,175	23,919	106,413	130,888
<b>TOTAL</b>		<b>1,871,211</b>	<b>8,066,392</b>	<b>6,690,548</b>	<b>3,274,573</b>	<b>19,902,726</b>	<b>24,477,007</b>



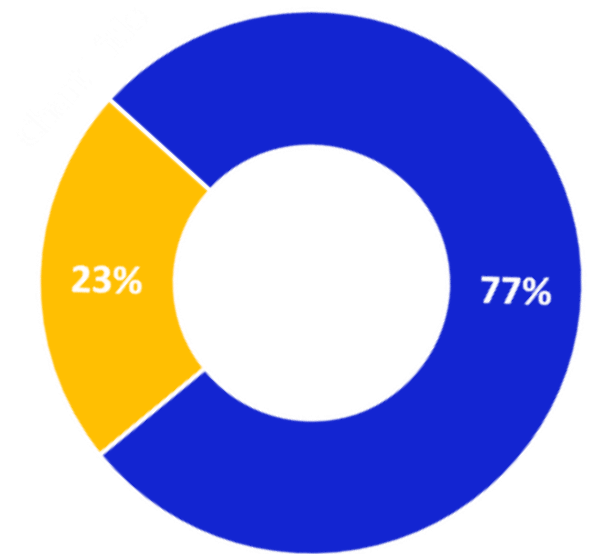
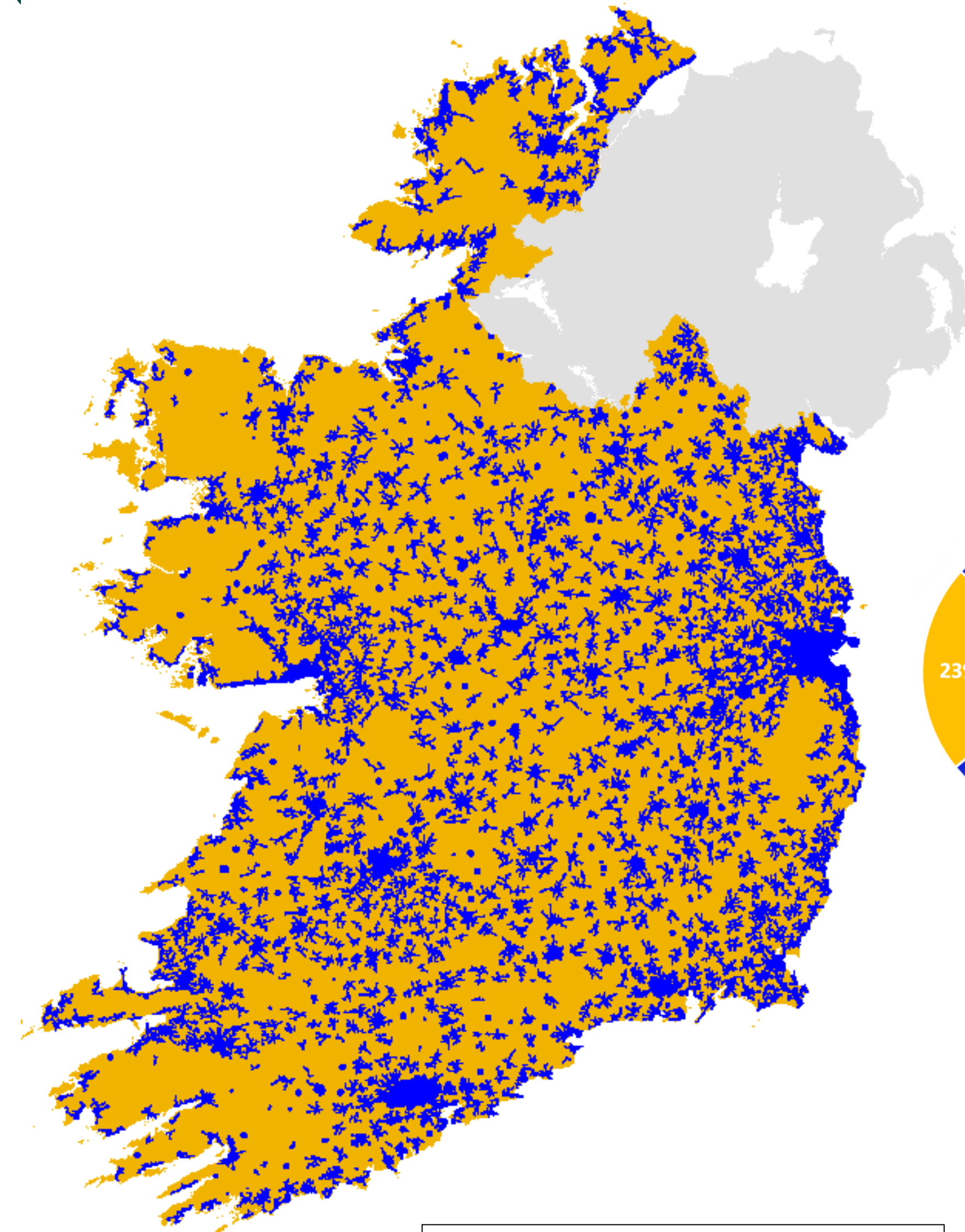
An Roinn Comhshaoil,  
Aeráide agus Cumarsáide  
Department of the Environment,  
Climate and Communications

# Primary Schools' Connectivity Via the National Broadband Plan

# National Broadband Plan Overview



- The Blue Area represents areas already covered by Commercial Operators, where high speed broadband services are available to customers.
- The Amber Area represents the Intervention Area (IA) of the National Broadband Plan, where Commercial Operators do not provide and have no plans to provide high speed broadband services to customers.

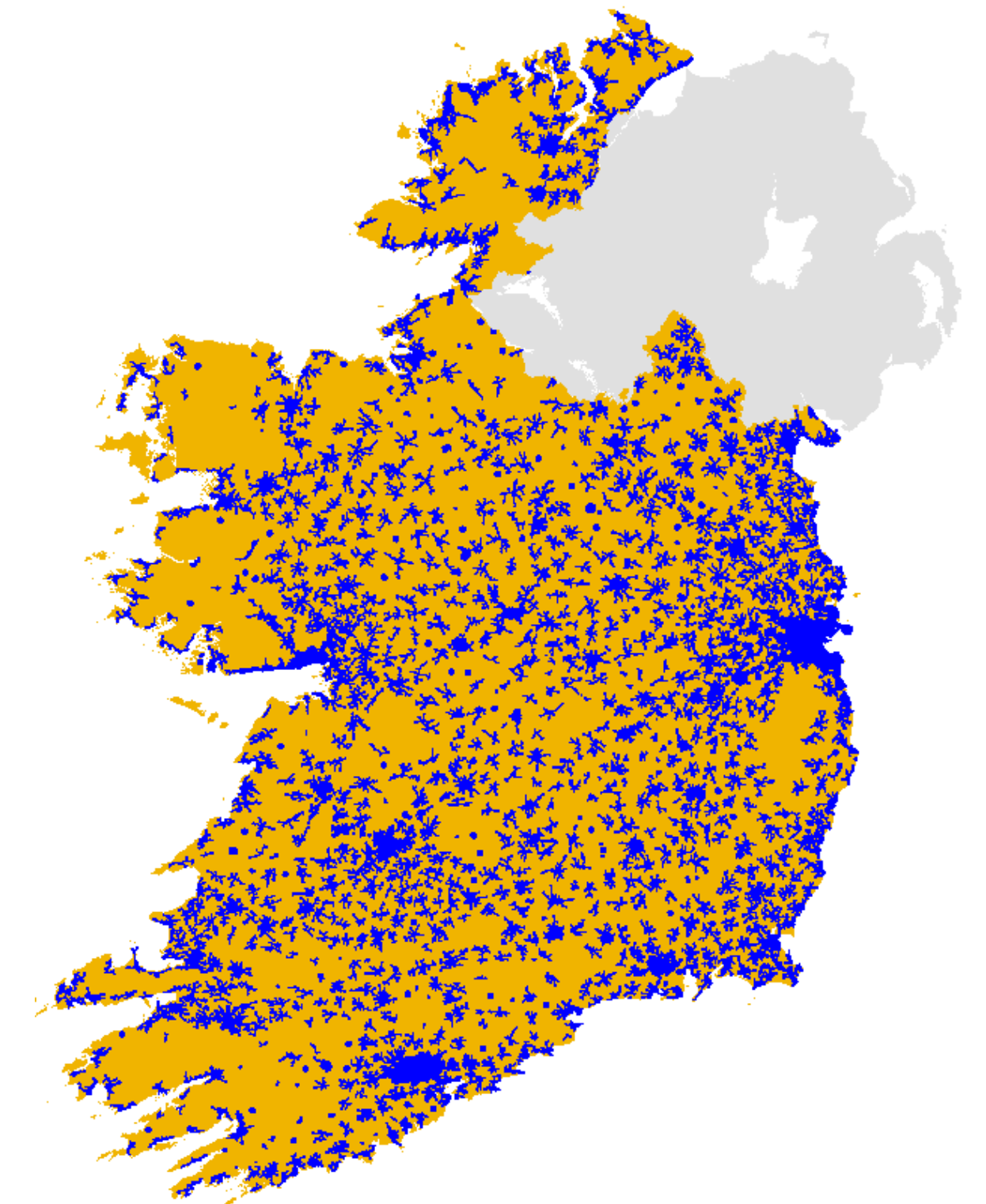


**Blue – Commercial coverage**  
**Amber - NBP Intervention Area**

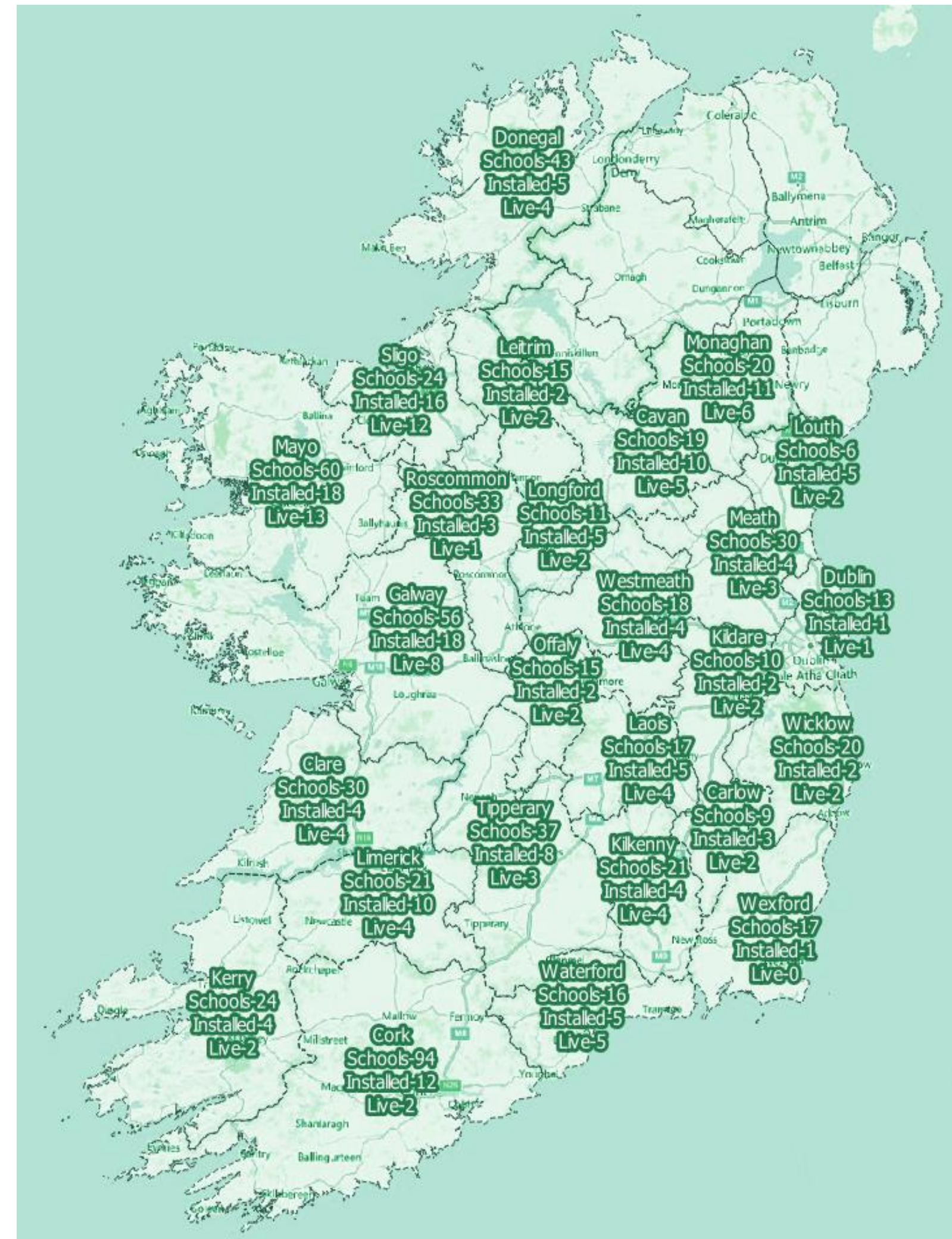
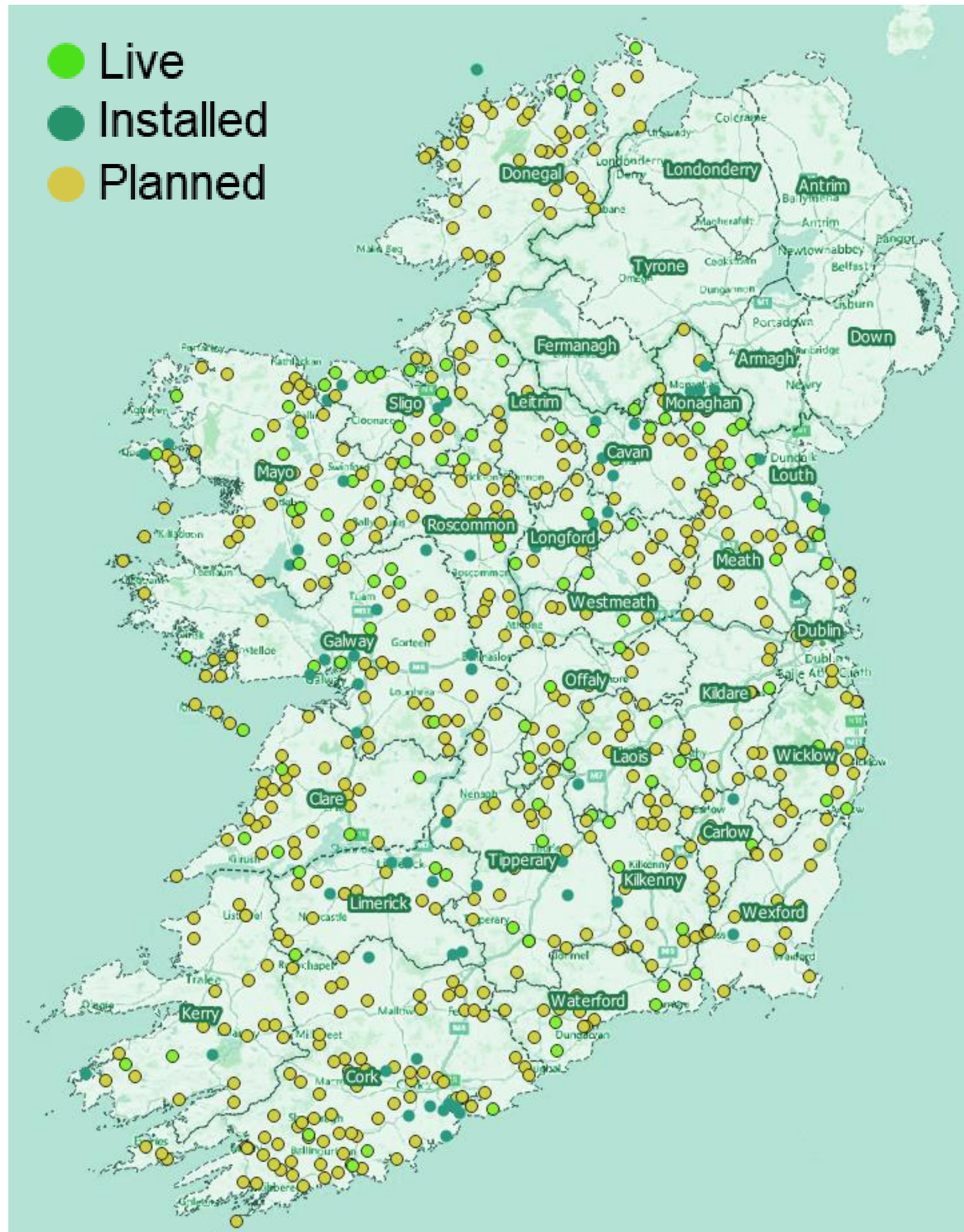
# Primary Schools' Eligibility for NBP Services



- Of the 3,200 Primary Schools nationwide, 679 Primary Schools were determined to be in scope for connection to High Speed Broadband via the NBP.
- A collaborative approach was agreed between the Department of Environment, Climate and Communication and Department of Education and Skills to proactively prioritise High Speed Broadband services to those schools which had:
  - No broadband service or;
  - Broadband services yielding less than 10Mbps minimum speeds
- Originally forecast to complete the provisioning of High Speed Broadband to these 679 Primary Schools in line with the NBP program across 7 years, an acceleration ambition was announced by National Broadband Ireland (NBI) in December 2020 to strive to complete connectivity to all in scope Primary Schools by end 2022.
- Primary Schools' broadband services provide educational access exclusively to pupils and staff.
- Note: The Department of Education and Skills has a separate program in place via HEAnet providing broadband services for post Primary Schools.



# Deployment Status – End of 2021



Of 679 Primary Schools in scope:

- Schools are across all 26 Counties.
- 179 Schools have Wireless Technology Installed of which 164 Schools are Connected to the NBP Network. 15 Schools are already served by a Commercial Operator (wireless or fibre) and do not require a wireless solution.
- 114 Schools are Connected by an RSP and are Live.
- Kilmore National School in Crossdoney, Co Cavan is the first school which has been passed with NBP Fibre.

# High-speed broadband transforms education opportunities at Cavan National School



A primary school in County Cavan has been transformed with *“hope and opportunity”* according to its principal, after receiving a high-speed fibre broadband connection.

Kilmore Central National School is achieving minimum speeds of 500Mbps following its connection to the new high-speed fibre network built by NBI.

It is the first school connected to NBI’s high-speed fibre network under the National Broadband Plan.



# Deployment Status By County



County	Total Schools	Live	Installed To Date	Wireless in 2022	Fibre in 2022	Fibre in H1 2023
Carlow	9	2	3	0	6	0
Cavan	19	5	10	9	0	0
Clare	30	5	5	21	4	0
Cork	94	4	14	70	10	0
Donegal	43	4	5	31	7	0
Dublin	13	1	1	4	3	5
Galway	56	9	19	27	8	2
Kerry	24	2	4	9	7	4
Kildare	10	2	2	6	1	1
Kilkenny	21	4	4	10	7	0
Laois	17	5	6	5	6	0
Leitrim	15	2	2	13	0	0
Limerick	21	4	10	7	4	0
Longford	11	3	6	4	1	0
Louth	6	2	5	0	1	0
Mayo	60	15	20	30	9	1
Meath	30	5	6	19	3	2
Monaghan	20	6	11	7	0	2
Offaly	15	2	2	10	3	0
Roscommon	33	3	5	20	8	0
Sligo	24	12	16	4	4	0
Tipperary	37	5	10	18	9	0
Waterford	16	5	5	9	2	0
Westmeath	18	4	4	4	6	4
Wexford	17	0	1	9	6	1
Wicklow	20	3	3	14	3	0
<b>Total</b>	<b>679</b>	<b>114 *</b>	<b>179</b>	<b>360</b>	<b>118</b>	<b>22</b>

\* Note: The Department of Education and Skills is responsible RSP connectivity after NBI has installed their equipment





Thank you

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