Part III.8 - Supplementary Information Sheet for the notification of an evaluation plan

Member States must use this sheet for the notification of an evaluation plan pursuant to Art. 1(2)(a) of Regulation (EU) No $651/2014^1$ and in the case of a notified aid scheme subject to an evaluation as provided in the relevant Commission guidelines.

Please refer to the Commission Staff Working Document "Common methodology for State aid evaluation" for guidance on the drafting of an evaluation plan.

1. Identification of the aid scheme to be evaluated

Title of the aid scheme:

National Broad	National Broadband Plan (NBP)							
The evaluation	n plan co	ncerns:						
(a)	☐ No 651	a scheme subject to evaluation pursuant to Article 1(2)(a) of Regulation (EU) 1/2014?						
(b)	x	a scheme notified to the Commission pursuant to Article 108(3) TFEU?						

Previous evaluations:

list any existing *ex-ante* evaluations or impact assessments for the aid scheme and ex post evaluations or studies conducted in the past on predecessors of the aid scheme or on similar schemes.

For each of those studies, provide the following information:

- (a) a brief description of the study's objectives, methodologies used, results and conclusions, and
- (b) specific challenges that the evaluations and studies might have faced from a methodological point of view, for example data availability that are relevant for the assessment of the current evaluation plan.

If appropriate, identify relevant areas or topics not covered by previous evaluation plans that should be the subject of the current evaluation.

Provide the summaries of such evaluations and studies in annex and, when available, the internet links to the documents concerned:

Review of NBS (September 2011) Report of the Comptroller and Auditor General³

Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the ⁱnternal market in application of Articles 107 and 108 of the Treaty (OJ L 187, 26.6.2014, p. 1).

² SWD(2014)179 final of 28.5.2014.

^{3 &}lt;u>www.audgen.gov.ie/documents/annualreports/2011/report/en/FullReport2011.pdf</u>

2. Objectives of the aid scheme to be evaluated4

2.1. Description of the aid scheme specifying the needs and problems the scheme intends to address and the intended categories of beneficiaries (for example size, sectors, location, indicative number)

The NBP is designed to bring high speed broadband connectivity to those areas of the country where current network providers are not currently providing high speed broadband connectivity and there is no prospect for improvements through commercial investments in the near future (i.e. the next seven years). The NBP will address the digital divide between rural areas of Ireland and the rest of the country. This digital divide is expected to persist in the absence of Government intervention.

The NBP will cover approximately 540,000 premises (the Intervention Area). These premises are spread across every county in Ireland.⁵ The total number of premises includes the following demographics and targeted premises:

- 380,000 residential premises,
- 99,000 commercial premises, of which 14,500 are standalone businesses and 84,500 are mixed use premises which includes 52,000 farms,
- Over 1,000 strategic connection points (including schools and business parks).

The direct beneficiary of the State aid will be National Broadband Ireland, the winner of the procurement process concluded by the Department of Communications for the NBP contract in 2019. The procurement was open to electronic communication providers who met the pre-qualification criteria. Three operators met the pre-qualification criteria, however two subsequently dropped out of the process. Therefore there will be only one direct beneficiary. The direct beneficiary of the state aid will become the owner of the new network infrastructure, however much of the infrastructure to be used will be leased from third parties, for example the incumbent telecom operator pole and duct network.

Indirect beneficiaries will be Wholesale Service Providers and Retail Service Poviders, i.e. electronic communication providers who obtain wholesale access to the State-subsidised network in order to offer retail services to end-users.

2.2. Objectives of the scheme and the expected impact, both at the level of the intended beneficiaries and as far as the objective of common interest is concerned:

The objectives of the scheme were set out in the Intervention Strategy and the Programme Initiation Document. The objectives cover four main areas: extent of coverage and speed of rollout, quality of service, value for money, and underpin Government policy. The objectives, and underlying principles, are set out in the tables below.

Beyond providing a general description of the objectives and eligibility rules of the scheme, the aim of this section is to assess how the eligibility and exclusion rules of the scheme may be used to identify the effect of aid. In some cases, the precise eligibility rules may not be known in advance. In those cases the best available expectations should be provided.

Coverage maps are available on a county basis on the Department's website.

https://www.dccae.gov.ie/en-ie/communications/topics/Broadband/national-broadband-plan/high-speed-broadband-map/county-maps-and-statistics/Pages/County-and-Townland-Maps.aspx

The scheme is expected to result in full coverage of high speed broadband to all premises in Ireland, seven years after the contract is awarded. This is expected to deliver a step change in broadband services in the Intervention Area. Ensuring the delivery of these services is a common interest objective identified by the European Commission in its Digital Agenda for Europe.

The direct beneficiary of the State aid will be expected to undertake a significant level of investment in NGA in rural Ireland over the course of the rollout period, maintaining this network over the 25 years of the contract (with a requirement to commit to a further 10 years beyond 2045). The winning bidder must also ensure that any new premises in the Intervention Area are connected over the 25 year contract at the standard connection charge.

NBP Objectives

	Objective	Sub-objective/detail
1	Develop intervention strategy for areas commercial operators will not deliver high speed broadband.	Deliver intervention as soon as possible to ensure a national high speed broadband network for Ireland.
2	Provide high quality and reliable broadband services.	Every home / business to have access to high speed broadband with a choice of service providers. Ensure network can meet current and future data demand.
3	Value for money.	Design economically advantageous procurement strategy. Maximise re-use of existing infrastructure. Incentivise additional commercial investment.
4	Underpin Government policy on economic recovery and jobs.	Stimulate retention/growth in jobs, enable farming, e-health, trading online, tourism, savings for consumers etc.

Source: DCCAE Programme Initiation Document (reproduced in Broadband Strategy for Ireland 2015⁶)

Within the context of these objectives there are a number of principles that have been identified by the Department which inform the intervention strategy to be adopted for the Project. These principles are as follows:

 $[\]label{lem:communications} {}^{6}\text{https://www.dccae.gov.ie/en-ie/communications/topics/Broadband/national-broadband-plan/state-intervention/Pages/Strategy%20Dec%202015.aspx}$

	Principles
1	Delivery a material change in service levels
2	Stimulate private investment where appropriate
3	Intervene only where the market does not deliver
4	Minimise the amount of state subsidy where possible
5	Minimise distortions to the wider market
6	Promote competition through fair wholesale access
7	Maintain technology neutrality
8	Maximise total economic benefit
9	Maintain legal and regulatory compliance

Source: Broadband Strategy for Ireland 2015

2.3. Possible negative effects, on the aid beneficiaries or on the wider economy, that might be directly or indirectly associated with the aid scheme:

Examples of negative effects are regional and sectorial biases or crowding out of private investments induced by the aid scheme

The aid scheme could potentially give rise to the following negative effects:

Labour market effects

As the rollout of the NBP network will require extensive civil engineering works over a 7 year timeframe, the NBP project will constrain the ability of the civil engineering companies engaged in NBP works to undertake other projects. This could increase the cost of construction projects for other potential customers of these civil engineering companies or result in delays to other projects. This could have a knock-on impact in other geographic areas, outside the Intervention Area.

Health and wellbeing of children and students in IA

The primary objective of the NBP is to ensure all premises in Ireland have access to high speed broadband and maximising the use of this network will ensure that the total economic benefit is maximised (NBP Principle No. 8). Maximising the use of the network will involve residents and businesses using broadband in more ways, across different aspects of their daily lives. This will also be the case for children and students. With ubiquitous availability of high speed broadband in schools and at home this will enable learning in the classroom and homework at home to be performed in different ways. Ultimately this means increased device usage and increased screen time.

Whilst some of the increased device usage and screen time will be for education purposes, research shows that the current generation of students spend more time on computers and in front of screens during their leisure time (Nugent et al., 2015). International literature has found evidence that increased leisure time involving screens has a negative impact on:

- sleep (Cain and Gradisar, 2010; Hysing et al., 2015),
- on the level of physical activity students have (Melkevik et al., 2010) and

on social wellbeing (Richards et al., 2010).⁷

Therefore these are potential negatives health implications for children and students in the IA who will spend more time in front of screens when high speed broadband becomes available as a result of the granting of State aid.

Impact on basic broadband providers

The rollout of new infrastructure in the IA which will provide households and business premises with the option of connecting to high speed broadband services may impact on existing basic broadband providers who currently operate in the IA. Some of these operators may choose to become Retail Service Providers on the new network, and migrate their customer base from basic to high speed services and provide additional services compared to their existing product offerings. Other providers may exit the market as a result of the entry of NBPco in the IA and an inability to compete against a fibre to the home service and larger retail operators that will have a wholesale platform on which to compete.

2.4. (a) the annual budget planned under the scheme,

The annual budget planned under the scheme is not finalised. However, the overall nominal budget approved over the 25 year period is up to €2.6bn exclusive of VAT.

(b) the intended duration of the scheme⁸,

The contract with NBPco will be for a period of 25 years (e.g. 2019-2044) with a requirement to commit to a further 10 years where the operations of the subsidised company remain viable at year 25 absent further subsidy.

(c) the aid instrument or instruments and

Please see Notification Form.

(d) the eligible costs:

Please see Notification Form.

- **2.5.** Summary of the eligibility criteria and the methods for selecting the aid beneficiaries. Describe the following:
 - (a) the methods used for selecting beneficiaries (e.g. such as scoring),

⁷ ESRI (May 2016) Teaching and Learning in Second-Level Schools at the Advent of High-Speed Broadband

⁸ Aid schemes defined in Article 1(2)(a) of Regulation (EU) No 651/2014 are excluded from the scope of the Regulation six months after their entry into force. After having assessed the evaluation plan, the Commission may decide to extend the application of the Regulation to such schemes for a longer period. Member States are invited to precisely indicate the intended duration of the scheme.

The remaining bidder for the NBP contract will be assessed across two categories: technical and commercial criteria. Technical criteria account for 65% of the total markets, and Commercial criteria account for the remaining 35%.

The specific criteria under each of these headings are set out below, alongside the points for each criteria.

Technical Criteria		Secondary Weighting	Technical Sub-Criteria	Tertiary weighting
			1.1 Wholesale Product Roadmap and Technology Roadmap	20%
	1. Technical Solution Specification		1.2 Universal Wholesale Gateway	25%
		19%	1.3 OSS/BSS system	25%
		1370	1.4 Electronic Network Maps, Public Portal and Secure Portals	10%
			1.5 Network evolution and future proofing	20%
			2.1 Reference Offer(s) for Minimum Bitstream Wholesale Product Suite	45%
	3 Peterson Offer	220/	2.2 Reference Offer(s) for Remaining Minimum Required Wholesale Products	20%
CEO/	2. Reference Offer	33%	2.3 Reference Offer(s) for Additional Required Wholesale Products	25%
65% of total			2.4 Reference Offer(s) for Other Permitted Wholesale Products	10%
marks		29%	3.1 Product and Coverage Template – Premises	60%
	3. Speed of Deployment and Environmental		3.2 Product and coverage Template – Strategic Community Points	20%
			3.3 Product and Coverage Template – Post Deployment	10%
			3.4 Coverage verification through testing and audit	10%
		14%	4.1 Operational Environment Performance	15%
	4. Operational		4.2 Network Performance	25%
	Performance		4.3 Service Provider Testing and Support Facilities	25%
			4.4 Industry Engagement	35%
	5. Alternative Bitstream Wholesale Product	5%	5.1 Alternative Bitstream Wholesale Product	100%
Comm	ercial Criteria	Secondary Weighting	Commercial Sub-Criteria	Tertiary weighting
	Communications,		CDB Strategic Plan	20%
<mark>35%</mark>	Demand	100/	Demand Stimulation Project Plan	55%
of total	Stimulation and	10%	NBPco Brand Development Plan	10%
marks	Brand Plan (CDB)		Communications and Engagement Plan	15%
	Subsidy Payments	90%	n/a	n/a

(b) the indicative budget available for each group of beneficiaries,

There will be only one beneficiary of state aid for this project.

(c) the likelihood of the budget being exhausted for certain groups of beneficiaries,

There will be only one beneficiary of state aid for this project.

(d) the scoring rules, if they are used in the scheme,

Scoring rules will not be used in the scheme.

(e) the aid intensity thresholds and

The aid intensity for the base case, as set out in our financial model, will be no more than 95%.

(f) the criteria the authority granting the aid will take into account when assessing applications:

The Department has prepared a detailed evaluation document (known as Volume 2 to the bidder during the procurement process) setting out how a bidder's submission will be assessed against the technical and commercial criteria set out above. The assessment involves the initial technical assessment of the bidder's solutions for robustness and credibility and then various aspects are scored. The bidder must pass a certain score threshold. Initially bidders were scored against the lowest priced bid. There was one bidder at final tender. While there was no competing bids at final tender, two draft bids were received prior to final tender. Due to a single bidder outcome there are significant additional contractual safeguards in place to ensure that the State gets value for money, such as strict clawback provisions. There are also significant hurdles to cross to have a compliant bid – for example the bidder must have all third party build/operate and funding contracts at very developed stage for Preferred Bidder and must be concluded and signed prior to contract award.

2.6. Specific constraints or risks that might affect the implementation of the scheme, its expected impacts and the achievement of its objectives:

The main risk around the project is the complexity around the build and the interaction of the remaining bidder with the incumbent where the fibre build is reliant on access to the incumbent's pole and duct infrastructure. The main impact on the scheme, depending on whether the relationship between the remaining bidder and the incumbent is good or not and whether regulation is effective, is on time and cost. The incumbent could slow things down and/or it could over charge for access to the network. However, at the time of the due diligence to contract award, the final bidder had concluded an appropriate infrastructure access agreement with eir for a 25 year period.

The other area that creates uncertainty for the remaining bidder and its consortium is whether other commercial operators or the incumbent decide to build more premises in the

Intervention Area post contract award. This could impact the commerciality of the scheme for the remaining bidder. The more uncertainty around the scope of the market failure area the more risk a consortium of equity and debt providers will place on the scheme. Depending on the level of that risk bidders may withdraw or seek an unacceptable subsidy from the State. The contract includes a mechanism for change control if there is an increase/decrease in the size of the Intervention Area.

3. Evaluation questions

3.1. The specific questions that the evaluation should address by providing quantitative evidence of the impact of aid.

Explain how the evaluation questions relate to the objectives of the scheme:

Explain why the chosen indicators are the most relevant for measuring the expected impact of the scheme:

Direct effects

Coverage/ rollout:

- Has the aid resulted in ubiquitous NGA coverage for all premises in the IA by the end
 of the Rollout Period?
- How quickly has the rollout occurred (# premises passed p.a.)?

These questions address the primary objective of the NBP "Deliver intervention as soon as possible to ensure a national high speed broadband network for Ireland", and "every home/business to have access to high speed broadband."

Take-up:

To what extent is the NGA network in the IA being used by residential and business users and other end-users:

- What is the take-up in terms of total subscriber numbers?
- What is the take-up by subscriber type?
- What volume of data is being used across the network?
- Has the beneficiary successfully used demand stimulation activities to drive take-up in line with its targets?

These questions address the level of take-up of NGA services in the IA. Ensuring that take-up is maximised will ensure that the maximum level of benefits are achieved (see NBP Principle No. 8 set out above "Maximise total economic benefit").

Quality of service/ reliability

Has the aid resulted in the delivery of high quality and reliable services in the IA, which are in line with commercial areas, as measured by:

- a) average download and upload speeds (of least expensive NBPco product)
- b) fault repair times

This addresses NBP Objective No. 2 "Provide high quality and reliable broadband services".

Distinguish between

(a) questions related to the direct impact of the aid on the beneficiaries,

Direct impact on beneficiaries

- Has the aid had a material effect on the wholesale market position of the direct beneficiary?
- Incentive effect: Has the granting of aid affected the viability of investments in the IA compared to investments in the commercial areas (e.g. light blue areas)?

(b) questions related to the indirect impacts and

Indirect impac	cts
Residential end-users	Has the granting of aid delivered NGA services in the IA which have: - Led to improvements to the everyday lives of IA end-users? - Affected choice of location to live?
Business end- users	 Has the granting of aid delivered NGA services in the IA which have: led to improvements in day-to-day activities (e.g. the productivity levels and transaction costs) of IA business users? Affected choice of business location?
Other end- users	Tourism: Has the granting of aid delivered NGA services in the IA which have led to changes in the tourism sector in the IA?
Government stakeholders (enablers)	Has the granting of aid delivered NGA services in the IA which have resulted in a change in the provision of government services delivered nationally or locally within the IA?
WSPs/RSPs	Has the granting of aid changed the way the WSP/RSP provides services in the IA (e.g. geographic reach)? Has the aid affected the business of basic broadband providers in the IA?

These questions address NBP Objective No.4 "Underpin Government policy on economic recovery and jobs: Stimulate retention/growth in jobs, enable farming, e-health, trading online, tourism, savings for consumers etc." and NBP Principle No. 8 "Maximise total economic benefit"

Effects on competition

What impact does the granting of aid have on competition in the NGA broadband market in the IA and in the national market?

Retail prices:

• Does the granting of aid result in retail prices for NGA broadband in the IA that are in line with commercial areas?

Retail level competition:

Does the granting of aid result in end-users of NGA broadband in the IA having a choice of

provider?

National Retail market for high speed broadband

• Does the granting of aid for the IA have an impact on competition in the national fixed broadband market?

Impact on basic broadband providers

 How does the granting of aid for the IA impact on basic broadband providers and the provision of basic broadband services?

This addresses NBP Objective No. 2 that "every home/business to have access to high speed broadband with a choice of service providers."

(c) questions related to the proportionality and appropriateness of the aid.

Proportiona	ality and appropriateness
Cost per premises:	How much subsidy is required - per premises passed and - per premises connected? 9
Value for money:	Re-use of existing infrastructure: - How much existing infrastructure is NBPco using as a % of total poles/duct being used by NBPco?
	Incentivise commercial investment: - Has the granting of aid affected commercial investment in the IA (in NGA or in general) beyond that envisaged by the NBP project?
These question	ons address NBP Objective No. 3 "Value for Money"

⁹ See example of BDUK https://www.gov.uk/government/statistics/broadband-performance-indicator-june-2017

4. Result indicators

- **4.1.** Describe which indicators will be built to measure outcomes of the scheme, as well as the relevant control variables, including the sources of data, and how each result indicator corresponds to the evaluation questions.
 - (a) the relevant evaluation question,
 - (b) the indicator,
 - (c) the source of data,
 - (d) the frequency of collection of data (for example, annual, monthly, etc.),
 - (e) the level at which the data is collected (for example, firm level, establishment level, regional level, etc.),
 - (f) the population covered in the data source (for example, aid beneficiaries, non-beneficiaries, all firms, etc.):

Evaluation question	Indicator	Source	Frequency	Level	Population
Direct effects					
 Coverage/rollout: Has the aid resulted in ubiquitous NGA coverage for all premises in the IA by the end of the Rollout Period (end of year 7)? 	 Total number of premises passed by NGA services in IA Total premises will be split into categories (e.g. residential, commercial, Strategic Connection Points) Coverage level: Total premises passed as % of total IA premises 	NBPco	Every 12 months over the Deployment Period	Premises	All premises in the IA
 How quickly has the rollout occurred (# premises passed p.a.)? 	Comparator: How does the rollout achieved compare to (a) the beneficiary's target rollout and (b) the Department's target of 100% by end of year 7? Digital Agenda target: Total number of premises passed by NGA services as % of total premises				
 Take-up: To what extent is the NGA network in the IA being used by residential and business users and other end-users: What is the take-up in terms of total subscriber numbers? What is the take-up by subscriber type? 	 Total number of premises connected by deployment area Total premises will be split into categories (e.g. residential, commercial, mixed use, Strategic Connection Points) Penetration level: Total number of premises connected as % of total premises passed 	NBPco	Every 12 months	Premises	All premises in the IA
	 Comparator: How does take-up compare with (a) the beneficiary's target take-up and (b) the Department's take-up assumptions? How does take-up in the IA compare to take-up of NGA services in comparable parts of the rest of country? Digital Agenda target:50% of more of households to have internet subscriptions above 100mbps 	IA vs non-IA: ComReg (for national subscriber numbers NBPco (for IA)			
 Has the beneficiary successfully used demand stimulation activities to drive take-up in line with its targets? (qualitative/quantitative) 	 Take-up by deployment area Comparator: Compare take-up in different deployment areas 				

What volume of data is being used?	where different demand stimulation activities were undertaken Total data usage (across network) Average monthly data usage in IA per residential connection, per business connection Comparator Compare data usage in the IA to data usage over NGA networks in comparable parts of the rest of the country	NBPco ComReg			
Quality of service/reliability: Has the aid resulted in the delivery of high quality and reliable services in the IA, which are in line with commercial areas, as measured by:					
a) average download and upload speeds	Comparison of mean download and upload speeds of least expensive NBPco product vs equivalent benchmarked product in commercial areas	NBPco for IA, ComReg for non- IA	Every 12	Premises	All premises
b) fault repair times	Comparison of # days to repair faults vs commercial areas (measured in days)	NBPco for IA, ComReg for non-IA	months		in the IA
Effect on direct beneficiary					
Has the aid had a material effect on the wholesale market position of the direct beneficiary?	Compile financial analysis of the aid beneficiary (NBPco) using key financial performance measures and metrics, e.g. total revenues, fixed wholesale revenues, return on capital, productivity (employees), network indictors e.g. geographic reach of network,	NBPco Publicly available information on Siro and Eir ComReg	Ad hoc	Company	All premises national

	Comparators: Siro and Eir				
Incentive effect: Has the granting of aid affected the viability of investments in the IA compared to investments in the commercial areas (e.g. light blue areas)?		Information held by Department	Ad hoc	Company	IA and eir 300k area

Indirect effects															
Residential end-users: Has the granting of aid delivered NGA services in the IA led to improvements to the everyday lives of IA end-users?	Examples: % of residential end-users in IA who: • reported time savings from NGA broadband • reported being able to work from home as a result of NGA broadband • Farmers: % of famers (end-users) who reported improvements in efficiency of farming activities	Survey	Survey	Survey	Survey	Ad hoc	Sample premises in IA	All premises in IA							
Business end-users: Has the granting of aid delivered NGA services in the IA led to improvements to the productivity levels and transaction costs of IA business users?	Examples: % of business end-users win IA who: • reported time savings from NGA broadband • reported increased productivity as a result of NGA broadband • reported lower transaction costs as a result of NGA broadband														
Other end-users: Tourism: Has the granting of aid delivered NGA services in the IA led to changes in the tourism sector in the IA?	Examples: % of tourists who reported positive experience from having access to NGA services when visiting specific locations within IA/travelling in the IA/staying in accommodation in the IA			Tourists											
Government stakeholders (enablers): Has the granting of aid delivered NGA services in the IA resulted in a change in the provision of government services delivered nationally or locally within the IA?	Examples: # of government initiatives that changed as a result of universal NGA availability			Governm ent stakehol ders											
RSPs/WSPs Has the granting of aid changed the way your company provides services in the IA (e.g. geographic reach)? As a basis broadband provider in the IA, has the aid affected your business?	Examples: # RSPs/WSPs whose customer base has increased as a result of NBPco offering services in the IA			RSPs/ WSPs											

Effects on competition					
What impact does the granting of aid have on competition in the NGA broadband market in the IA?			Every 12	Premises	All premises
Retail prices:		Publicly available	months	Freiiises	in the IA
 Does the granting of aid result in retail prices for NGA broadband in the IA that are in line with commercial areas? 	 Comparison of retail price of least expensive standalone broadband product in the IA vs equivalent benchmarked product in commercial areas 				
Retail level competition:					
 Does the granting of aid result in end-users of NGA broadband in the IA having a choice 	 Number of retail service providers (RSPs) offering NBPco products in each deployment area 	ComReg			
of provider?	 Market shares of each retail provider in IA: (# subscribers per retail provider/Total subscribers) 	NBPco			
Retail market for NGA broadband - Does the granting of aid for the IA have an impact on the national fixed NGA broadband market?	 Market shares by operator of the national fixed NGA broadband market based on subscriptions: (# subscribers per retail provider/Total subscribers) Compare retail market shares in IA to retail market shares in commercial areas 	ComReg (if data available)			
	market snares in commercial areas				

Proportionality and appropriateness					
Cost per premises: How much subsidy is required per premises passed and per premises connected?	 Cost per premises passed: Total subsidy payments received by NBPco/# premises passed Cost per premises connected: Total subsidy payments received by NBPco/# premises connected Total cost per premises based on deciles (to show most expensive premises to connect) Cost defined as total subsidy payments: Deployment milestone payment Connection milestone payment Ongoing capital payment 	NBPco	Every 12 months	IA	IA
Value for money: Re-use of existing infrastructure: How much existing infrastructure is NBPco using as a % of total poles/duct being used by NBPco? Incentivise commercial investment: Has grant of aid affected commercial investment in the IA?	 Number of existing poles used by NBPco (in the IA, Transit Area and Excluded Area) Distance (in metres) of existing duct used by NBPco (in the IA, Transit Area and Excluded Area) Usage of other existing infrastructure 	NBPco Survey of operators	Every 12 months Ad hoc	IA IA	IA IA
in the ix:					

5. Envisaged methods to conduct the evaluation

5.1. In light of the evaluation questions, describe the envisaged methods to be used in the evaluation to identify the causal impact of the aid on the beneficiaries and to assess other indirect impacts.

Explain the reasons for choosing those methods and for rejecting other methods (for example, reasons related to the design of the scheme)¹⁰:

Direct beneficiary

The evaluation of the impact of the aid on the aid beneficiary will use a difference-indifference analysis between the control group and the treatment group to provide descriptive information on the differences between these two groups. The control group will consist of Siro and Eir, provided the level of data required is available.

Indirect effects

The indirect effects on various types of end-users of NGA services in the IA will be assessed using surveys. The evaluation will use a difference-in-difference analysis between the treatment group and a control group of end-users in the IA who do not (yet) have access to NGA (i.e. rollout to their premises not planned until late in Rollout Period).

This analysis will seek to understand the experiences of IA residents and businesses and their broadband use before and after the delivery of NGA broadband to their area. It will seek to demonstrate how well their existing basic broadband meets their requirements (what functions can be satisfactorily performed, what functions cannot be satisfactorily performed) and compare this to the experience of users of NGA broadband delivered by NBPco.

Indirect effects will also be measured by comparing IA deployment areas to comparable parts of the rest of the country (e.g. light blue areas).

5.2. Describe precisely the identification strategy for the evaluation of the causal impact of the aid and the assumptions on which the strategy relies.

Describe in detail the composition and the significance of the control group:

Coverage

The key objective of the NBP is to achieve 100% coverage in the IA such that all premises will have equal access to high speed broadband. The network will pass over 500,000 premises over a 7 year period. As no area will exist that will not obtain access to high speed broadband, there is no obvious control group that can be used to compare coverage levels that would have occurred if there was no state aid granted, (i.e. NGA coverage in the IA based solely on commercial deployment by operators). Therefore the evaluation will compare the coverage levels achieved by the aid recipient to

(i) the target coverage levels set out in their bid during the procurement phase and

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Please make reference to SWD(2014)179 final of 28.5.2014.

(ii) the target coverage levels set by the Department in the tender documentation (i.e. 100% coverage by the end of year 7, the Rollout Period).

Take-up

As is the case with coverage, no area will exist that will not obtain access to high speed broadband, therefore there is no obvious control group that can be used to compare take-up levels of NGA that would have occurred in areas where there was no state aid granted. Therefore the evaluation will compare the take-up levels achieved by the aid recipient to

- (i) the target take-up levels set out in their bid during the procurement phase and
- (ii) the target take-up levels set by the Department (i.e. maximum take-up by the end of year 12, the Target Take-up Period).
- (iii) the take-up levels of NGA in comparable parts of the commercial areas. The IA will be considered on a deployment area basis (the IA comprises approximately 100 deployment areas) and will be compared to similar areas in the commercial area. For instance the light blue areas (i.e. eir's 300k rollout) may be more similar in socio-demographic characteristics than urban 'blue' areas.
- (iv) If varying demand stimulation activities are undertaken by NBPco in different deployment areas, variations in take-up levels will be investigated.

Quality of Service

As is the case with coverage, no area will exist that will not obtain access to high speed broadband, therefore there is no obvious control group that can be used to compare quality of service levels for NGA in the IA if there was no state aid granted. Therefore as a comparator the evaluation will compare the quality of service indicators for the services provided by the aid recipient to equivalent products/services available in the commercial areas.

Direct beneficiary

The ideal control group to compare the impact of the aid on the aid beneficiary is a similar company operating in the Irish market who is not in receipt of State aid. Whilst there is no identical comparator to NBPco, Siro may a reasonable comparator. Siro operates in the Irish market for high speed broadband as a wholesale only provider. It is a start-up. It has a target network coverage area of c.500,000 premises, to be completed by end 2020. Financial information on Siro is publicly available from their annual accounts.

Another potential comparator is the incumbent operator Eir however Eir is a vertically integrated firm with wholesale and retail operations as well as a mobile division.

Indirect effects

In order to measure the indirect effects of the aid, it will be possible to utilise the staggered nature of the network rollout. A control group of end-users in the IA who do not (yet) have access to NGA (i.e. rollout not planned until later in Rollout Period) will be used. As the Rollout Period is 7 years, there will be a cohort of end-users who will not receive NGA until year 7 of the network build. This will provide a period of time during which the differences between residents and businesses who receive services from NBPco early in the rollout can be compared to residents and businesses who do not receive services until the later stages of rollout. This will provide a short-term indication of the difference in the day-to-day experience of users who have access to high speed broadband as a result of state aid and those who do not.

Competition

As is the case with coverage, no area will exist that will not obtain access to high speed broadband, therefore there is no obvious control group that can be used to compare the effect of competition in the NGA broadband market in the IA if there was no state aid granted. Therefore as a comparator the evaluation will compare retail prices and retail level competition in the IA with commercial areas.

5.3. Explain how the envisaged methods address potential selection bias.

Can it be claimed with sufficient certainty that observed differences in the outcomes for the aid beneficiaries are due to the aid?

There is no identical company which is not in receipt of aid that can be used to compare outcomes for the aid beneficiary. The Department is of the view that Siro may be a suitable comparator to be used as a control for the reasons set out above, however there will be some uncertainty that observed differences between Siro and the aid beneficiary are fully due to the aid.

5.4. If relevant, explain how the envisaged methods intend to address specific challenges related to complex schemes, for example schemes that are implemented in a differentiated manner at regional level and schemes that use several aid instruments:

The project will not be implemented in a differentiated manner at regional level.

The project will not use several aid instruments.

6. Data collection

6.1. Provide information on the mechanisms and sources for collecting and processing data about the aid beneficiaries and about the envisaged counterfactual.¹¹

Provide a description of all the relevant information that relates to the selection phase:

- data collected on aid applicants,
- data submitted by applicants and selection outcomes.

Explain any potential issue as regards data availability:

A combination of existing data sources and additional data collection will be used.

NBPco will be subject to a number of reporting requirements. NBPco must supply the following information:

- a report on the rollout progress by deployment area
- a report on costs incurred by deployment area
- a report on take-up and demand stimulation activities by deployment area.

This information will constitute a vital source of information for the effectiveness of the Project to be monitored.

Data will also be collected from the regulator. The regulator currently publishes a market report every quarter based on data collected from operators. Statistics are reported on a national basis. It is envisaged that the regulator may be given additional information gathering powers (via new legislation). This will include powers to collect and publish information on a sub-national basis (e.g. the IA vs non-IA). However, in the initial years the Department will gather necessary information.

Data will also be gathered by way of surveys of IA households and business premises and other users of the NBPco's services in the IA, and will also cover the light blue areas. These surveys will be able to utilise the staggered deployment strategy by surveying those who have received connections and those who have not yet received connections. The regulator currently carries out surveys of the market (residential and business) and publishes the results. Additional surveys may be undertaken by the regulator specifically for the purposes of state aid evaluation. This is currently under consideration as to whether ComReg will have the expertise and resources to carry out this additional work. Notwithstanding whether they do or not the Department will procure the necessary expertise as required to deliver reports set out.

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Please note that the evaluation might require sourcing of both historical data and data that will become progressively available during the deployment of the aid scheme. Please identify the sources for both types of information. Both types of data should preferably be collected from the same source as to guarantee consistency across time.

6.2. Provide information on the frequency of the data collection relevant for the evaluation.

Are observations available on a sufficiently disaggregated level, that is to say at the level of individual undertakings?

For many indicators, data will be collected on an annual basis as set out in Section 4

It is envisaged that bespoke surveys would be undertaken for the purpose of the interim reports and final report. Surveys will be conducted in advance of interim/final reports to enable the results to be incorporated into these reports.

The data sources identified will ensure that observations are available on a sufficiently disaggregated level.

6.3. Indicate whether the access to the necessary data for conducting the evaluation might be hindered by laws and regulations governing confidentiality of data and how those issues would be addressed.

Mention other possible challenges related to data collection and how they would be overcome:

Where data is collected from individual households or businesses it will be collected on an anonymised basis therefore data confidentiality issues are not expected to arise.

6.4. Indicate whether surveys of aid beneficiaries or of other undertakings are foreseen and whether complementary sources of information are intended to be used:

It is not expected that surveys of the aid beneficiary would be undertaken.

Surveys of other undertakings may be necessary to supplement quantitative information collected from NBPco.

7. Proposed timeline of the evaluation

7.1. Indicate the proposed timeline of the evaluation, including

- milestones for data collection,
- interim reports and
- involvement of stakeholders.

If relevant, provide an annex detailing the proposed timeline:

Given that rollout is expected to take 7 years to complete, a detailed Interim Evaluation Report will be submitted to the Commission after the mid-way point of the Rollout Period. As data will be collected annually, the report will be submitted at approximately year 4.

The focus of this the first Interim Evaluation Report will be on the progress of the coverage/rollout.

A further interim Evaluation Report will be submitted when the rollout is complete, approximately year 7. This will enable more time for data on indirect effects to be collected and analysed.

The Commission will receive yearly short updates concerning the developments of the scheme, progress with data collection and updates on the evaluation design. We would envisage many informal updates as the project progresses throughout the country. The Department will provide the Commission with a detailed update on verified data availability in its second annual update.

The Commission will be informed with the shortest delay if some of the hypotheses made (e.g. on the availability of data) were not confirmed in practice thereby hindering the foreseen evaluation.

7.2. Indicate the date by which the final evaluation report will be submitted to the Commission:

The key milestones for the project are as follows:

- The Rollout Period is 7 years from the commencement date.
- The Target Take-up Period extends from the commencement date to the end of Year 12 of the contract.

The Department intends to submit its Final Evaluation Report to the Commission 11 years after the commencement of the aid (e.g. 2030). This Report will incorporate 10 years of data and allow 12 months to analyse and collate the information for reporting purposes.

7.3. Mention factors that might affect the envisaged timeline:

Delays could result in the completion of the network rollout taking longer than 7 years for example as a result of problems with access to existing infrastructure and/or key resources such as subcontractors who may be scarce depending on competing market demands.

8. The body conducting the evaluation

8.1. Provide specific information on the body conducting the evaluation or,

if not yet selected, on the timeline, procedure and criteria for its selection:

The evaluation will be carried out by an independent expert. The independent expert has not yet been selected. It is intended that the independent expert will be in place by the end of 2020.

The Department is considering the option of nominating the regulator as the independent body to conduct the evaluation. The regulator is independent of the Department. It currently produces and publishes a market report every quarter based on information collected from operators. It also produces surveys (residential and business) every few years. The regulator would require new data collection powers in order to be appointed as the independent expert. This legislative process is currently underway and will undergo a consultation process before being brought to Government.

8.2. Provide information on the independence of the body conducting the evaluation and on how possible conflict of interest will be excluded during the selection process:

In selecting a body to conduct the evaluation, the Department will ensure independence and avoid conflict of interest.

8.3. Indicate the relevant experience and skills of the body conducting the evaluation or how those skills will be ensured during the selection process:

In selecting a body to conduct the evaluation, the selection criteria will be used to ensure that the selected entity has the relevant experience and skills.

8.4. Indicate which arrangements the granting authority will make to manage and monitor the conduct of the evaluation:

The Department of Communications NBP team will be responsible for managing and monitoring the evaluation and liaising with the independent body carrying out the evaluation.

8.5. provide information, even if only of an indicative nature, on the necessary human and financial resources that will be made available for carrying out the evaluation:

The Department will be responsible for overseeing the collection of data from NBPco on an ongoing basis. The independent body will be responsible for organising and evaluating survey data and NBPco data. These activities will be managed within the Department's NBP team.

9. Publicity of the evaluation

9.1. provide information on the way the evaluation will be made public, that is to say, through the publication of the evaluation plan and the final evaluation report on a website:

The Evaluation Plan, Interim Evaluation Report(s) and the Final Evaluation Report will be published on the Department's website.

9.2. Indicate how the involvement of stakeholders will be ensured.

indicate whether the organisation of public consultations or events related to the evaluation is envisaged:

Stakeholders will be involved in the evaluation through the use of public consultations and surveys, where relevant.

9.3. specify how the evaluation results are intended to be used by the granting authority and other bodies, for example for the design of successors of the scheme or for similar schemes:

The NBP contract will extend for 25 years. Therefore the Department is not considering any successor to the Scheme at this time.

9.4. indicate whether and under which conditions data collected for the purpose or used for the evaluation will be made accessible for further studies and analysis:

The body conducting the evaluation will compile a data file containing all data used for the evaluation. This data fie will be updated on an ongoing basis. This data file will be held by the Department and will made accessible for further studies and analysis, during the duration of the contract.

9.5. indicate whether the evaluation plan contains confidential information that should not be disclosed by the Commission:

The evaluation plan does not contain confidential information.

10. Other information

- **10.1.** indicate here any other information you consider relevant for the assessment of the evaluation plan:
- **10.2.** list all documents attached to the notification and provide paper copies or direct internet links to the documents concerned: