



Republic of Cyprus



**DEPARTMENT OF
ELECTRONIC COMMUNICATIONS
DEPUTY MINISTRY OF RESEARCH, INNOVATION AND DIGITAL POLICY**

**Public Consultation for the Expansion of Very High-Capacity
Networks in Underserved Areas
(Investment under Recovery and Resilience Facility)**



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Cyprus—tomorrow
RECOVERY AND RESILIENCE PLAN

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Expansion of Very High-Capacity Networks in underserved areas

Public consultation pursuant to paragraphs 64 and 78 (b) of the European Union Guidelines for the Application of State Aid Rules in relation to the Rapid Development of Broadband Networks¹

Preliminary remarks

The Cyprus Recovery and Resilience Plan, adopted by the European Council in July 2021, under Component 4.1, foresees dedicated investments to support deployment of very high-capacity networks in underserved areas of Cyprus.

This investment aims to accelerate, through public intervention, deployment of VHCN infrastructures in underserved areas with the aim to ensure that (a) all premises in organized urban and rural communities have access to 100 Mbps download speeds, upgradable to 1 Gbps download speeds; (b) the entire population living in urban and rural communities, as well as all major terrestrial transport paths have uninterrupted 5G coverage with download speeds of at least 100 Mbps; and (c) all main socio-economic drivers (SED) have access to symmetrical Gigabit connectivity.

For the implementation of the measure, a State aid support scheme will be set-up to support investment costs in a Private DBO (Design, Build and Operate) - Gap Funding model. The beneficiaries of the scheme will be electronic communications network operators under the general authorization regime (Law 24(I)/2022). As a result of the public support, it is expected that based on the RRF milestones at least 44,000 premises in underserved areas will be covered by VHCN connectivity networks. The total budget allocated to the scheme will be of 35,000,000 EUR and will finance investments throughout 2022-2025.

This document outlines the main features of the support scheme, including the map of eligible intervention areas preliminarily identified. It is submitted for public consultation by the Department of Electronic Communications, in line with European State aid rules. The objective of the public consultation is twofold: confirm the list of underserved areas in Cyprus in order to consolidate the final map of eligible intervention areas and obtain feedback on the proposed public support scheme. Interested parties are invited to comment on the measure. Electronic communications network operators should submit substantiated information regarding their own networks able to reliably provide the threshold speeds in the target area that are present or credibly planned to be deployed until 2025.

The deadline to submit comments and observations together with the relevant documentation is **23rd of July 2022**. Please use the following e-mail address to submit your information: nioannou@dec.dmid.gov.cy, akakkouras@dec.dmid.gov.cy. Please identify the information

¹ The present consultation is carried out in conformity with the new Broadband Guidelines, and in particular paragraphs 77 to 83.

that should be considered confidential.

Following the outcome of the public consultation, the scheme will be notified to the European Commission pursuant to Article 108, Paragraph 3 of the TFEU.

High-level project description

1. Objectives of the scheme

The scheme will support investments in VHCN access networks in underserved areas of Cyprus through three (3) types of interventions:

- A. **Type A investments**: Investments in VHCN fixed access networks providing at least 300 Mbps download speed, upgradable to 1 Gbps download speed, located in areas where no networks providing 100 Mbps download connectivity are present or planned by 2025.
- B. **Type B investments**: Investments in mobile networks that provide a 5G service at a minimum speed of 100 Mbps download, in areas where no such networks are present or planned by 2025. No support will be granted or used to meet legal obligations, such as coverage obligations attached to rights of use for spectrum.
- C. **Type C investments**: Investments for configuration of VHCN fixed access networks to provide 1 Gbps symmetrical speeds to socio-economic drivers (educational institutions of all levels (primary, secondary and higher education), hospitals and buildings housing government agencies of the central and regional administration), where 1 Gbps symmetrical speeds services are not available or planned by 2025.

2. Preliminary identification of eligible intervention areas

The intervention areas will consist of discrete areas, scattered over the entire territory of the Republic of Cyprus.

Dedicated mapping exercises for fixed and wireless networks were conducted by OCECPR throughout 2021 to identify private investment plans up to 2025. Based on the results of this mapping, a preliminary list of eligible intervention areas under the support scheme has been identified, as described below.

A detailed list of sites is given in Annex 2:

- Eligible intervention areas for Type A investments- areas where no networks providing 100 Mbps download connectivity are present or planned.
- Eligible intervention areas for Type B investments- areas where no mobile networks providing a 5G service for minimum 100 Mbps download speeds are present or planned.
- Eligible socio-economic drivers (SED) buildings for Type C investments.

3. Performance of subsidized networks

The new infrastructure supported by the scheme will have to observe minimum performance requirements, as described below for each type of investments:

A. Minimum performance requirements for Type A investments

Subsidized fixed access networks should provide minimum 300 Mbps download speed (min. 50 Mbps upload speed) that can be reliably achieved under usual peak time conditions². It must be possible (within 5 working days) to upgrade the supported networks to 1 Gbps download speed (250 Mbps upload speed) reliably achieved at peak time conditions without further investments in the passive infrastructure supported by the scheme.

The funding applicants must ensure that the infrastructure supported and deployed under the scheme will result in the provision of a fixed broadband access service that at least triples the existing download and upload speeds provided under usual peak time conditions to end users in the target areas and ensures in all cases, irrespective of the existing speeds, the provision, under usual peak time conditions, of speeds of at least 1000 Mbps download and 250 Mbps upload.

Supported networks must reach at least up to the boundaries of passed premises, so that all premises passed by the supported network can be connected within maximum 4 weeks from the date of the request of the end user, for normal activation fees.

B. Minimum performance requirements for Type B investments

The supported 5G mobile infrastructure should provide a terrestrial connection delivering a data rate of at least 100 Mbps symmetrical that can be reliably achieved under peak time conditions. In practice the scheme will fund the connection to symmetrical gigabit ready backhaul for base stations currently connected only through radio or micro-wave links.

The funding applicant must ensure that the infrastructure supported and deployed under the scheme will result in the provision of a mobile broadband access service that at least doubles the existing download and upload speeds provided under usual peak time conditions to end users in the target areas and ensures in all cases, irrespective of the existing speeds, the provision, under usual peak time conditions, of speeds of at least 100 Mbps download and 20 Mbps upload.

C. Minimum performance requirements for Type C investments

Subsidized access networks connecting SEDs should provide minimum 1 Gbps symmetrical speeds that can be reliably achieved under peak time conditions, irrespective of the technologies used.

The funding applicant must ensure that the infrastructure supported and deployed under the scheme will result in the provision of a fixed broadband access service that at least triples the existing download and upload speeds provided under usual peak time conditions to SEDs and

² Speed under usual peak time conditions is understood as the speed that end users are expected to achieve during the entire peak-hour period

ensures in all cases, irrespective of the existing speeds, the provision, under usual peak time conditions, of speeds of at least 1 Gbps download and 1 Gbps upload.

For all three types of investments, beneficiaries are entitled to propose the provision of the required services using or combining whatever technology they deem most suitable.

4. Budget and duration of the scheme

The budget of the measure is 35,000,000 EUR, entirely made available through the Recovery and Resilience Facility (“RRF”). The scheme will last until 31 December 2025 (date until which aid can be granted under the scheme).

5. Eligible beneficiaries & conditions for participation in the scheme

The beneficiaries of the scheme are undertakings, authorized electronic communications network operators, established in the Republic of Cyprus at the time of selection of the grantees of the support, that design, build and operate the infrastructure supported under the scheme. The beneficiaries will be selected following an open, transparent, and non-discriminatory competitive funding procedure, following the public procurement legislation of Cyprus.

The beneficiaries of the scheme must confirm the subsidized networks for which they receive investment support are not part of their investment plans until 2025; in addition, applicants must provide appropriate documentation, such as performance, cost, time and financing plans demonstrating the implementation of the investment would not be possible without public support.

The infrastructure built will be in the property of the undertaking that receives funding following the competitive selection procedure. The selected undertaking is obliged to operate and maintain the subsidized infrastructure for at least seven years after the start of its operation. This obligation will be in force irrespective of any change in ownership of the infrastructure within this timeframe. Wholesale access rules apply to any subsidized infrastructure.

Undertakings in difficulty³ will not be eligible to receive support under this scheme.

6. Intervention model

The implementation of the investments will follow a Private DBO (Design, Build and Operate) – Gap Funding model⁴. The Contractor will undertake the design, construction, and operation of the network, as well as part of the financing, and the public sector will cover the funding gap with a grant, calculated on the basis of a percentage of eligible investment costs for the deployment of subsidized infrastructure, following an open tender procedure.

As will be explained in detail below, the geographical territory of the Republic of Cyprus will be divided into three (3) Lots. Each Lot will include a combination of type A, B and C investments,

³ In line with the definition in the Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty (OJ C 249, 31.7.2014, p. 1)

⁴ ‘Gap funding’ refers to the difference between investment costs and expected profits for private investors.(2013/C25/01 - annex 1)

grouped in the respective intervention area.

7. Eligible costs

Eligible costs will include investment costs for the three types of investments, as well as own-services costs and project planning and management costs, detailed as follows:

- A. *Eligible investment costs for Type A investments:* costs for deployment of passive infrastructure of VHCN fixed access networks. This can include: civil engineering works, preparation of documentation to obtain the necessary permits, ducting, including sub-ducts, microtubes, etc., and their installation; fibre cables including inlets and splicing, fibre distribution panels, including their installation, passive equipment in distribution and local centers.
- B. *Eligible investment costs for Type B investments:* costs for deployment of 5G mobile networks. This can include: costs for deployment of passive infrastructure for 5G mobile networks. This includes investment costs for the roll-out of passive infrastructure or its upgrade or adaptation when necessary for the use of an existing infrastructure: costs for deployment of optical backhaul networks up to the first distribution point (macro-cells); costs for design and construction of the mobile access network, deployment of new small cells, securing power supply, foundations, masts or support structure, technical rooms and structural security measures; costs for connections between the passive access network and the backhaul networks, i.e. deployment of ducts, dark fiber etc.
- C. *Eligible investment costs for Type C investments:* costs for configuration of existing access networks serving SED to ensure 1 Gbps symmetrical speeds can be reliably achieved under normal peak time conditions. This configuration can be done either at the passive level (point-to-point) or at active level with the addition of appropriate terminal equipment (WDM-PON). Investments can include: civil engineering works; preparation of documentation to obtain the necessary permits; ducting, including sub-ducts, microtubes, etc., and their installation; fibre cables including inlets and splicing; fibre distribution panels, including their installation; passive equipment in distribution and local centers.
- D. *Other overall project costs (for all three types of investments):*
 - a) Own-services costs directly related to the implementation of the investment-work and material used for the project, duly justified
 - b) Project planning and management related costs

The investment implementation period and the eligibility of costs cannot, under any circumstance, start before the submission of the project funding proposal to the granting authority. All works have to be finalized no later than 1st of June 2025. Failure to deliver by this timeline forfeits the right to the gap funding support.

8. Aid amount and aid intensity

A maximum aid amount will be defined for each Lot in the selection procedure.

9. Selection process and award criteria

The beneficiaries of the support scheme will be selected through an open, competitive and non-discriminatory selection process, following the Cyprus procurement rules.

In order to encourage competition, the territory of Cyprus will be divided into three (3) Lots, described in Annex 1 of this document.

Project proposals will need to ensure coverage of at least 15.000 premises included in each Lot. Additional points in the selection procedure will be awarded to bidders offering a higher coverage.

Each Lot will include all three types of investments⁵ described above and will be awarded to a bidder, based on the most economically advantageous offer (please refer to the award criteria below). Eligible undertakings have the possibility to bid for all three Lots. However, as a general rule, an undertaking can be successfully awarded the bid for only one Lot. Only in the exceptional circumstance that there is only one bidder or only one eligible bid for a Lot, and the submitting tenderer has already been selected for another Lot, can the same tenderer be declared successful for more than one Lot.

In case of a single bidder for a Lot, the selection committee will appoint an independent auditor for the assessment of the bid (including cost calculations).

For the evaluation of submitted offers, the following selection and award criteria will be used:

- Amount of requested public support. The offer proposing the lowest amount of public support will be awarded the maximum score; the remaining offers will be awarded scores in decreasing order.
- Price offered to end-users and to other retail operators
- Additional points will be given for bidders going beyond the minimum coverage of 15.000 households per Lot.
- Environmental impact (expected CO2 emissions for the planned infrastructure over a 20-year period)
- Timeline for completion of the works (each month completed prior to 1st of June 2025 will award additional points) (NB: penalties will be applied to any contractor in case of delay in delivery)
- Compliance with the Cybersecurity Toolbox⁶

Should there be only one bidder for one of the/several Lots, an assessment of this winning bid by an independent auditor (including cost calculations) will have to be carried out.

10. Wholesale access conditions

Effective and comprehensive wholesale access to the subsidized passive infrastructure must be offered at both the passive and active layer, under open, transparent, fair and non-discriminatory conditions, to all operators who request it.

⁵ See annex 1 for detailed description of the lots.

⁶ [5g_eu_toolbox_72D70AC7-A9E7-D11D-BE17B0ED8A49D864_64468 \(1\).pdf](#)

For the fixed access networks subsidized (investment types A and C), at least the following products should be made available to access seekers: bit-stream access, virtual unbundled access ('VULA'), buildings or entries to buildings, building wiring, antennae, towers and other supporting constructions, ducts, conduits, masts, manholes, and cabinets". In addition, for investment type C, full physical unbundling should be made available to access seekers.

For the mobile access networks subsidized (investment type B), at least the following products should be made available to access seekers: access to poles/masts/towers, backhaul access, MVNO and RAN.

Wholesale access for all active access products should be granted for at least ten (10) years. For VULA and passive infrastructure elements, access should be granted for an unlimited duration, throughout the lifespan of the network element concerned.

Project funding applications must contain all conditions for the provision of wholesale access, including the prices. Moreover, following the award of the bid, all beneficiaries will be required to publish a reference wholesale offer describing all supported wholesale products, conditions and prices.

The wholesale service price for the proposed products must be less than or equal to the regulated wholesale prices approved by the Cyprus National Regulatory Authority (NRA), as applicable or can be determined through any existing commercial agreements. Furthermore there should be no margin squeeze between wholesale and retail prices.

The network that will be developed in each Lot will concentrate the traffic from all the served locations to one (or more) central Points-of-Presence (POPs), where other retail operators can be interconnected, in order to provide services.

The relevant elements of passive infrastructure financed under the measure have to be large enough to cater for at least three access seekers and to host point-to-multipoint as well as point-to-point solutions.

In the case of mobile networks deployed, the mobile sites must be sized in such a way that they can be used by at least three MNOs active in the Republic of Cyprus.

Aid will not be granted or used to meet legal obligations, such as coverage obligations attached to spectrum rights of use. Supported infrastructure will not be considered to meet any coverage obligations attached to the relevant spectrum rights of use.

Beneficiaries will also have to offer effective and comprehensive wholesale access to all existing and privately funded infrastructure used for the deployment of the subsidized network in the target areas. The same access conditions will apply on the entirety of the network including on the part where existing infrastructure will be used.

11. Private extensions to adjacent areas

Using their own resources, the aid beneficiary or access seekers connecting to the State funded network may wish to extend the network into adjacent areas. Private extensions in adjacent areas may be permitted two years after the State funded network enters into operation. This moratorium aims to protect existing operators in non-eligible areas from

competition stemming from subsidies backhaul.

12. Use of existing infrastructure

In order to reduce deployment costs and limit the negative environmental effects of network deployment, the granting authority encourages potential participants to the scheme to make use of existing public and private infrastructures that could be re-used for deployment of subsidized networks.

A database with information on the existence of such infrastructures throughout the territory of the Republic of Cyprus is made available by the NRA. The NRA will further assess the current availability of information regarding existing physical infrastructure and will ensure that it will be integrated into a single portal.

Any operator that owns or controls infrastructure in the eligible intervention areas identified above and that wishes to participate in the selection procedure must:

- (1) Inform DEC and the NRA about this infrastructure through this public consultation exercise
- (2) Undertake to make this infrastructure available for use by other operators participating to the selection process.
- (3) Information regarding the use of the respective infrastructure (terms, conditions, pricing) should be provided to any operators requesting it at least 2 months before the deadline for submission of bids in the competitive selection procedure.

13. Claw back mechanism

A claw back mechanism will be set-up for all projects for which eligible costs exceed 5,000,000 EUR at the time of final account. The mechanism will be operational throughout the lifespan of the subsidized network.

Under the mechanism, aid beneficiaries will have to refund those unexpected gains which exceed an increase of 30% as compared to the gains calculated for the funding gap in the project proposal phase.

Please note that to ensure that aid remains proportional and does not lead to overcompensation or cross-subsidisation of non-aided activities, the aid beneficiary must ensure accounting separation between the funds used for the construction and the operation of the network and other funds at its disposal.

14. Checks and audits

The Government of Cyprus, notably DEC and the Audit Office of Cyprus will be entitled to carry out spot checks to verify the correct implementation of the measure.

As such, upon request, any operator benefitting from the scheme will have to give access for the carrying out of performance checks of the new installation.

By participating in the aid scheme, the operators agree that audits be carried out at their premises and at the installations' technical sites. This should notably allow the authorities to

establish that subsidized infrastructures were implemented according to the specification of the scheme.

15. Jurisdiction

Any party may contact the Department of Electronic Communications regarding issues in the implementation of the subsidy scheme.

Any dispute or claim regarding the implementation of the scheme shall be subject to the jurisdiction of the competent Cyprus courts.

16. Final remarks and questions to stakeholders

All interested stakeholders are invited to submit their comments (Greek or English) on the aid scheme described above by **23rd of July 2022** at the following e-mail addresses: nioannou@dec.dmrid.gov.cy, akakkouras@dec.dmrid.gov.cy. In their answers, stakeholders are encouraged to address in particular but not limited to the following topics:

- (1) Are there any areas where operators plan investments with similar performance as the subsidized infrastructures for investment types A, B, and C respectively and that are currently identified as potentially eligible target areas? If so, please provide further information on the respective investment plans: location of the investments, performance of planned networks, timeline for finalization of investments.
- (2) Please provide information on the existing infrastructure your organization owns or controls and that could be re-used for deployment of connectivity networks supported under this scheme. The information to be provided must include at least:
 - type of infrastructure (duct, pole, cabinet, etc)
 - Location (GIS data)
 - Access conditions
 - Access pricing
- (3) Interested parties in an adjacent area should inform the authorities if they oppose extensions from the subsidised areas. In such a case, interested parties are invited to demonstrate that the planned extension enters an adjacent area which is already served by at least two independent networks providing speed comparable to those of the State funded network or that there is at least one comparable network in the adjacent area which entered into operation less than five years before the State funded network.

Annex 1: Description of Lots

1. Methodology for Lots definition

Selection of the analysis' reference unit

Aiming at an analysis with the best possible spatial detail, as well as ensuring the correct connection of the quantitative data, the separation of the areas was carried out at the level of Postal Codes (PC). With this option the demographic and other statistics refer to a smaller geographical area in relation to the municipalities / communities without losing their accuracy, thus giving the possibility of exporting safer results.

Implementation of Multicriteria Analysis

The selected factors influencing the multi-criteria analysis were defined with a view to establish three balanced Lots. The objective was that each Lot should have an equivalent economic interest to potential bidders. To that end a series of factors were defined, which affect the connection of the underserved households. Each of these factors was then weighted in order to allocate different importance to the various factors. The methodology identified the following factors (and weightings): the density of buildings per Organized Community - as the main factor (60%), the actual distance from the nearest cabinet for the connection of areas (20%), the existence of Road Network A-B (10%) and the population of the community (10%).

Each influencing factor was divided into classes/sections allowing different rating (from best-worst) so that, in total, each region received a rating based on the same criteria.

Building Density Factor

Specifically, for the density of buildings, they were divided into twelve (12) different classes.

Class-section/Score	From / Until	
	Buildings Kilometers	per sq.
1	0	50
2	50	100
3	100	150
4	150	200
5	200	300
6	300	400

7	400	500
8	500	600
9	600	700
10	700	1000
11	1000	15000
12	15000	20000

From estimated cost of connection of end-users, the estimated cost of connecting buildings in relation to the density of buildings is shown in the table below.

Class-section/Score	From / Until		Weighted cost factor
	Buildings per sq. Kilometres		
1	0	50	1,00
2	50	100	0,78
3	100	150	0,65
4	150	200	0,54
5	200	300	0,43
6	300	400	0,37
7	400	500	0,33
8	500	600	0,30
9	600	700	0,28
10	700	1000	0,26
11	1000	15000	0,26
12	15000	20000	0,26

Organisational Community (OCs) connection distance from splitter

Class-Section/Score	From/ (navigable meters)	Until
1	1	200
2	200	500
3	500	750

4	750	1000
5	1000	1500
6	1500	2000
7	2000	2500
8	2500	3000
9	3000	5000
10	5000	8000

Existence of Road Network

Class-Section/ Score	Existence of Road Network (A-B)
1	yes
0	no

Community population

Class-Section/ Score	From/ Until Number of Dwellings	
1	1	10
2	10	25
3	25	50
4	50	100
5	100	250

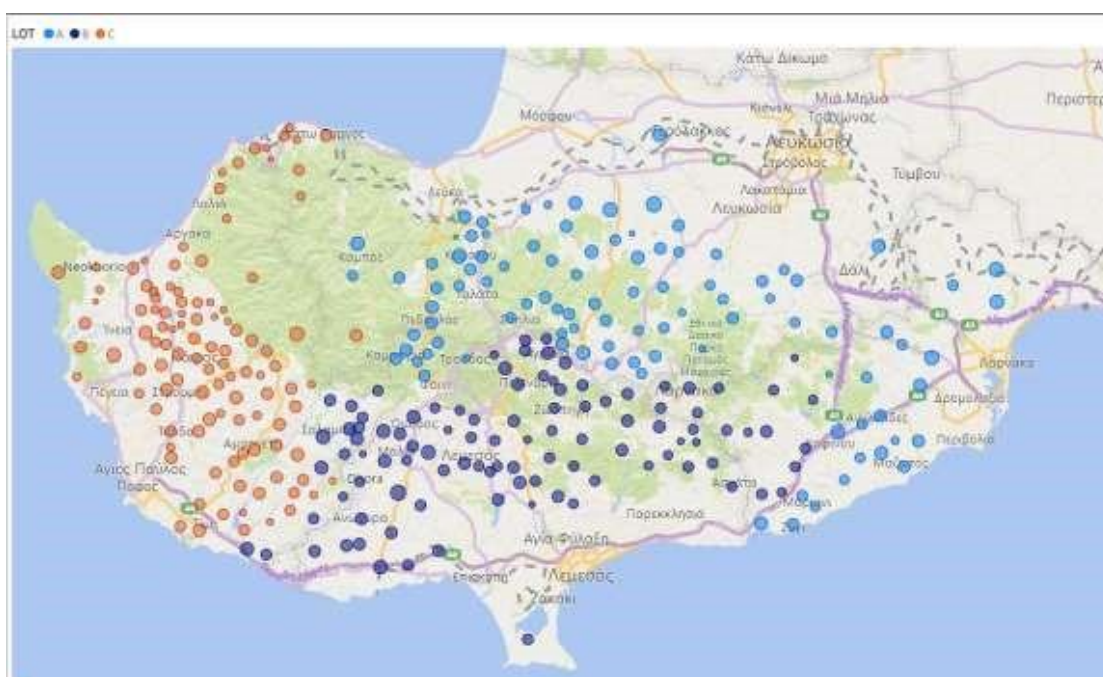
6	250	500
7	500	1000
8	1000	2500

Results of Multicriteria Analysis

Having in geographical connection all the geographical and quantitative parameters of each region and in detail the score for each factor (factors / weights) per region, we applied the method of multi-criteria analysis, resulting in a uniform calibration of the regions (scoring). The practical criterion of the geographical division of the areas (eg. the Organized Communities to be in the same Municipality) was taken into account in a way that adjacent areas should be in the same area (Lot), as well as be equal in their other geographical characteristics. (eg. number of PCs, Organised Communities, Buildings, etc.).

The results of the multi-criteria analysis gave three (3) areas of same attractiveness that can be seen in the graphs and tables below (detailed by area in Annex 2).

		Lots Score
		(Inv1)
Score	A	606
	B	606.5
	C	607



Analysing further with their other characteristics for the three (3) areas, data emerge:

Total Postal Codes by Regio

A	98
B	101
C	108

Total Organised Communities by region

A	532
B	499
C	399

Buildings by area located within an Organised Community or outside (in/out OCs)

Buildings IN OCs	A	32290	Buildings OUT OCs	A	3403
	B	25237		B	2128
	C	23249		C	867

Base Stations per Lot without fixed backhaul connection

Lot	Mob. Base Stations	
A	49	125
B	38	
C	38	

Socio-economic drivers to be connected per Lot

LOT	SEDs
A	111
B	75
C	69