

Effectiveness of establishing Internet access networks

With state support, will high-speed Internet reach end-users in market failure areas?

Summary of audit results

Despite the 35 million euros allocated to the Ministry of Economic Affairs and Communications and the various measures, the availability of high-speed Internet in market failure areas has not improved significantly in view of the ambition of the target set. The target set lags significantly and making ultra-high-speed Internet available to all those in need first shifted from 2015 originally planned to 2020 and has now shifted to 2030.

The Ministry's current policy to build as many access points to high-speed Internet as possible as cheaply as possible without regard to requests is not an efficient use of funds. The access network is built, among others, where there is little demand for it – this is confirmed by the current low percentage of high-speed Internet subscribers (21%).

In order to use funds more efficiently in the next European Union budget period, clear priorities should be set for the construction of the access network and access points should, as a matter of priority, be built in areas where high-speed Internet connection has been requested the most and for households who have requested it.

Broadband access network development:

The first stage of broadband development will use 20 million euros for grants to build access points to 40,016 address sites.

In the first stage of broadband development 12,813 connection points have been built as of November 2021 with more than 5 million euros of grants spent.

The second stage of broadband development will use 15 million euros for grants.

In the course of the implementation of the measure of building broadband infrastructure, 7,337 connection points will be built, using 10.5 million euros of grants. The budget for the end-user measure was 4.5 million euros.

In the next stages of broadband development until 2027, the plan is to use 69 million euros for grants.

Source: Consumer Protection and Technical Regulatory Authority and Enefit Connect OÜ

The Ministry of Economic Affairs and Communications (MEAC) nor the Consumer Protection and Technical Regulatory Authority (CPTRA) have information on requests for high-speed Internet.

Therefore, the MEAC is unable to take the requests of people into account in planning access points and build connection points first for households who have expressed their desire to subscribe to high-speed Internet.

The MEAC does not know how many households do not have a fixed wired Internet connection and where the coverage of the mobile communication network is non-existent or poor. The existence of such information would allow to plan, as a matter of priority, the building of connection points to these address sites.

The proportion of subscribers to the Internet access network is very small. With state support, access to 12,813 address sites (as of November 2021) has been built during the first stage of building the access network. Of these, 3,559 customers (28%) have subscribed to the access network, and 2,660 customers (21%) have started using the Internet service. The reason is mostly because end-users find the costs associated with high-speed Internet to be too high or they have no need for faster connection.

The MEAC has identified more than 200,000 address sites in market failure areas where ultra-high-speed Internet access network points should be built, but it is not clear how to get there. 69 million euros of the EU support for 2021–2027 is planned to be used for building access network points. If an overhead line solution on electricity poles is planned to be used for construction, the MEAC estimates that approximately 27,000 connection points could be built. Even this may not be possible with the increased building costs.

At the current pace of construction, it would take more than 10 years to build high-speed Internet access points to the address sites identified by the MEAC in market failure areas. People living in market failure areas are unable to know if and when high-speed Internet access network might arrive in their village or household, unless their household is included in the building plans for the current year.

The MEAC and the CPTRA have included sites where no Internet access network is required among the 200,000 address sites located in the market failure area. The address sites include sites that usually do not need a separate fibre-optic cable, for example sheds, garages and other auxiliary buildings attaching to households.

Main recommendations

Based on the aforementioned, the National Audit Office recommends the following:

- Prepare a realistic plan on how to reach households without a high-speed Internet connection identified by the MEAC and achieve the objectives set out in the development plan “Estonian Digital Society 2030” by supporting the construction of broadband access network points with the state budget and European Union support funds.
- Identify the households without a fixed wired Internet connection and where the coverage of mobile communication network is non-existent or poor for a more efficient use of funds. Appropriate technological solutions (e.g. mixed solutions of fixed and radio connection) for households that want a fixed high-speed Internet connection and support measures necessary for financing such construction should be developed.
- Improve the data of mapping market failure areas, i.e. leave sites where it is not necessary to build high-speed Internet access network points out of the lists of address sites.
- Plan and build access networks first in areas and/or households whose residents have expressed the desire for a high-speed Internet connection.

Responses of the audited:

The MEAC announced that the plan is to publish the “Estonian Broadband Development Plan 2021–2030“ in the first half of 2022, which addresses the plans to build both access networks and 5G infrastructure in more detail. The objectives of the development plan “Estonian Digital Society 2030” have been established in accordance with the objectives of the European Union to ensure a gigabit connection for all households in both urban and rural areas. These are goals the

implementation of which is organised by the MEAC according to the availability of funds in the budget.

The CPTRA has a pilot project underway in two counties where the coverage of mobile communication in the entire county is analysed in detail. Surveys were carried out at the end of 2021 and the analysis will be completed in the first quarter of 2022. Based on the results of the project, a decision can be made on whether a similar analysis should be carried out for the whole of Estonia. It can then be decided whether further support measures should be designed and implemented based on the availability of the coverage of the mobile communication network in the area.

The MEAC agreed that a better focus on the implementation of measures would be good, but in the opinion of the MEAC, this might not result in very large savings by buildings. Rather, it should be done more broadly by areas/villages.

The MEAC also agreed that access networks should, as a matter of priority, be built in areas or for households where the residents and enterprises have expressed the desire for a fixed high-speed Internet connection. To this end, in view of the preparatory support measure, local governments who know the desires of their residents and enterprises the best were asked to identify the areas where a broadband connection would be needed as a priority.

According to the CPTRA, in the course of the implementation of the two stages of support measures, all parties have gained a lot of experience on how to implement stages better. In view of all the circumstances, however, the CPTRA finds that support measures have been more successful than not and have helped to improve the availability of high-speed Internet.

The CPTRA agreed that in the future, it would be worthwhile to use technologies based on both radio connection (incl. mobile communication) and cable in the development of high-speed Internet with state support. This means that clear conditions should also be established for radio connection when designing the regulation of the measure because a model that takes into account two technologies ensures cost-effectiveness.

The CPTRA also agreed that the need and possibility of mapping market failure areas and address sites located there more accurately needs further investigation, incl. the quality of data used. In the future, the plan is to take the requests of people living in a market failure area into account to some extent, because to the knowledge of the CPTRA, the MEAC has also included in the design of the measure information received from local governments on which address sites on their territory the high-speed Internet connection should reach first.