



Strengthening Broadband Infrastructure and Service in the Republic of Armenia

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Eastern Partnership Electronic Communications Regulators Network (EaPeReg)

- Established in 2012
- Independent platform of NRAs
- Bringing together EaP and EU
- Three Expert Working Groups
 - IRB EWG
 - SEWG
 - REWG



EaPeReg

Eastern Partnership Regulators
for Electronic Communications





Public Services Regulatory Commission of the Republic of Armenia

EU4DIGITAL “Broadband strategies in the Eastern Partnership region” technical assistance project

Report 1: Benchmarking study and gap analysis

Regional Broadband Legal and Regulatory Benchmark Study between the EU and the Eastern Partnership Countries

Report 3 - Broadband Mapping Recommendations

EU4DIGITAL
“BROADBAND STRATEGIES IN THE EASTERN PARTNERSHIP REGION” TECHNICAL ASSISTANCE PROJECT

REPORT 1: BENCHMARKING STUDY AND GAP ANALYSIS

PART II EU2020 PROGRAMMATIC SINGLE-DONOR TRUST FUND
NO. TF073114
EC CONTRACT NO. ENL/2018/399-031

June 2019



Legal and Regulatory Roadmap on broadband for Armenia

As the core activity of the second component of the World Bank project on the development of Broadband Strategies for the EaP countries, within the EU funded EU4Digital initiative, the legal team has formulated some recommendations and included them in a draft legal roadmap presented in this chapter of the Report. The intention is to support a dialogue with the Beneficiaries towards a legal framework on broadband that is more aligned with the EU framework and best practices. Specifically, the legal roadmaps which include the recommendations above mentioned, aim at informing NPs (and NRAs) to develop an approach to improve the EaP partners' broadband legal and regulatory frameworks to facilitate broadband development in the EaP region, particularly telecoms and digital economy, in coordination with activities carried out under the various networks of the EU4Digital initiative in line with EU norms and best practices.

The legal roadmaps are intended to inform how beneficiary countries:

- Enhance the NRA's role in line with EU norms and identify appropriate mechanisms to facilitate an enabling environment for broadband development and improve regulatory certainty for private investment or public-private partnerships;
- Define specific and measurable targets, in line with EU Gigabit Society targets;
- Identify opportunities to reflect EU best practices to local systems.

The recommendations have been designed on the basis of the findings and results from the gap analysis conducted and outlined in the Annex 2 of this Report, which has been included as a background note for the countries to better understand the interpretation behind the study and analysis of every relevant laws and principles set out in the Beneficiaries' legal framework on broadband. In terms of elaboration of a model legal framework, the various legal acts of the EU (as well as practices of Member States where available) have been assessed and the most important regulatory fields having impact on broadband development have been identified. These are seen as minimum critical elements that should have been addressed in the national laws. The regulations which are not aligned with EU practices or which have different scope or approach in national law are addressed in this document. As already mentioned, those are the most critical factors and elements of the national regulatory framework, but countries are encouraged to seek more detailed alignment level with EU laws through a more intensive analysis and engagement.

The analysis carried out comprehended a wide range of EU laws and principles, national legal and policy frameworks set out in each EaP country, and answers to questionnaires with relevant questions on broadband which have been previously shared with NPs and NRAs to have a common understanding of the current situation in each country. Moreover, extensive desk researches and consultations with the NRAs/NPs, have been

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EASTERN PARTNERSHIP REGION” TECHNICAL
ASSISTANCE PROJECT

REPORT 3- Broadband Mapping Recommendations



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EU4DIGITAL “Broadband strategies in the Eastern Partnership region” technical assistance project

Broadband Strategies Recommendations for Eastern Partnership Countries

Ultrafast Armenia

Policy options towards broadband-for-all

December 31, 2020

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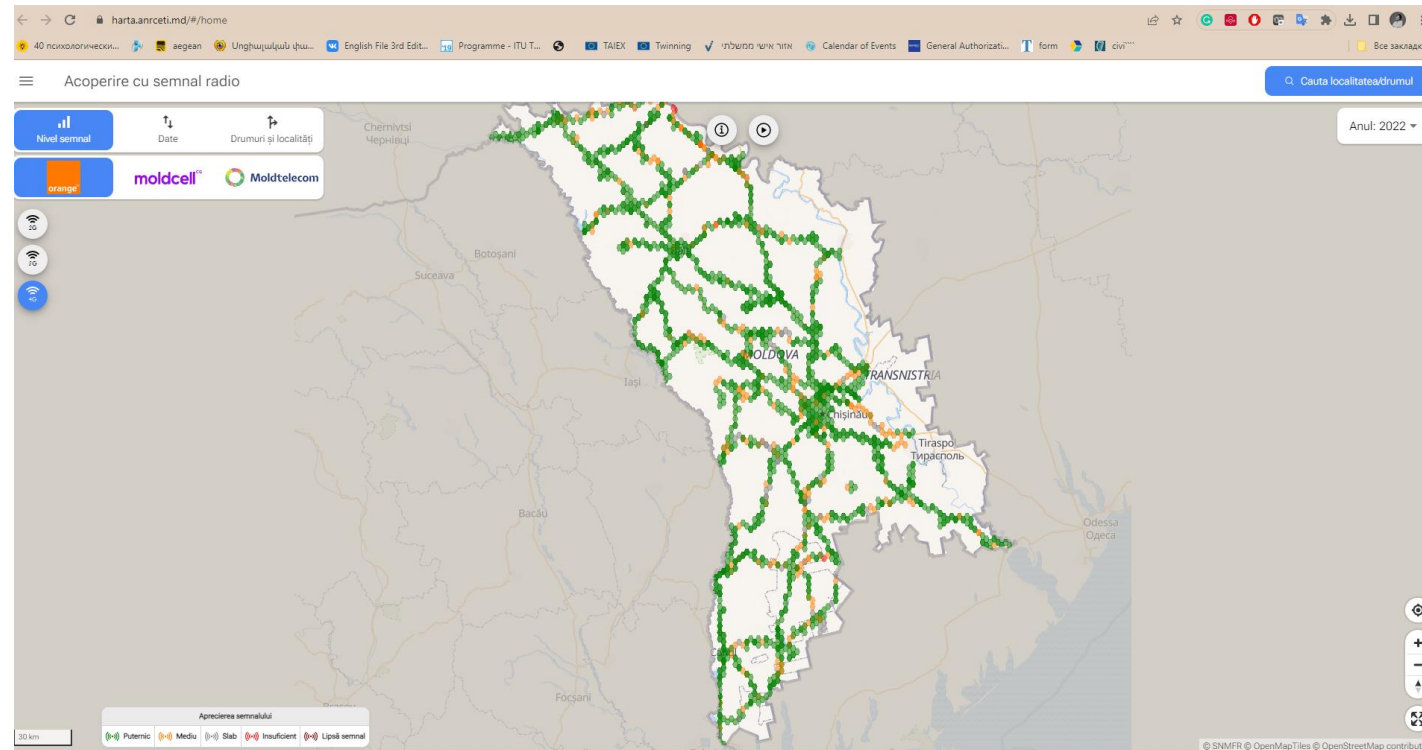
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Implementation of Recommendations

ANRCETI's Interactive Map of coverage and quality of mobile services on public roads (<https://harta.anrceti.md/#/home>)





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Strengthening Broadband Infrastructure and Service in the Republic of Armenia



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**Regulation of the telecommunications sector in Armenia started since 2006
in accordance with the RA Law on Electronic Communications**

Competent authority of the sector

Ministry of High
Tech Industry of RA

Regulatory authority of the sector

Public Services Regulatory
Commission of RA

Energy Sector

Natural Gas

Water Sector

Electronic
Communications



Public Mobile Network Coverage

In **2006** mobile network coverage was limited



Currently 100% of RA settlements are ensured with with the public mobile network coverage of 3G and 4G+(LTE-A) technologies. As for 4G+(LTE-A) technology coverage: at least in **91.4%** of RA settlements mutual penetration coverage of two operators, in **21,8%** mutual penetration coverage of three operators, which concludes **76%** of RA population

These indicators were ensured as a result of the fulfillment of the obligations set out in the licenses and permits of radio frequency bands allocation to the auction winning companies



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Public Mobile Network Coverage



891 settlements (88.9%) have public mobile network coverage of “Telecom Armenia” CJSC (Beeline)



1002 settlements (100%) have public mobile network coverage of “MTS Armenia” (VivaCell MTS)

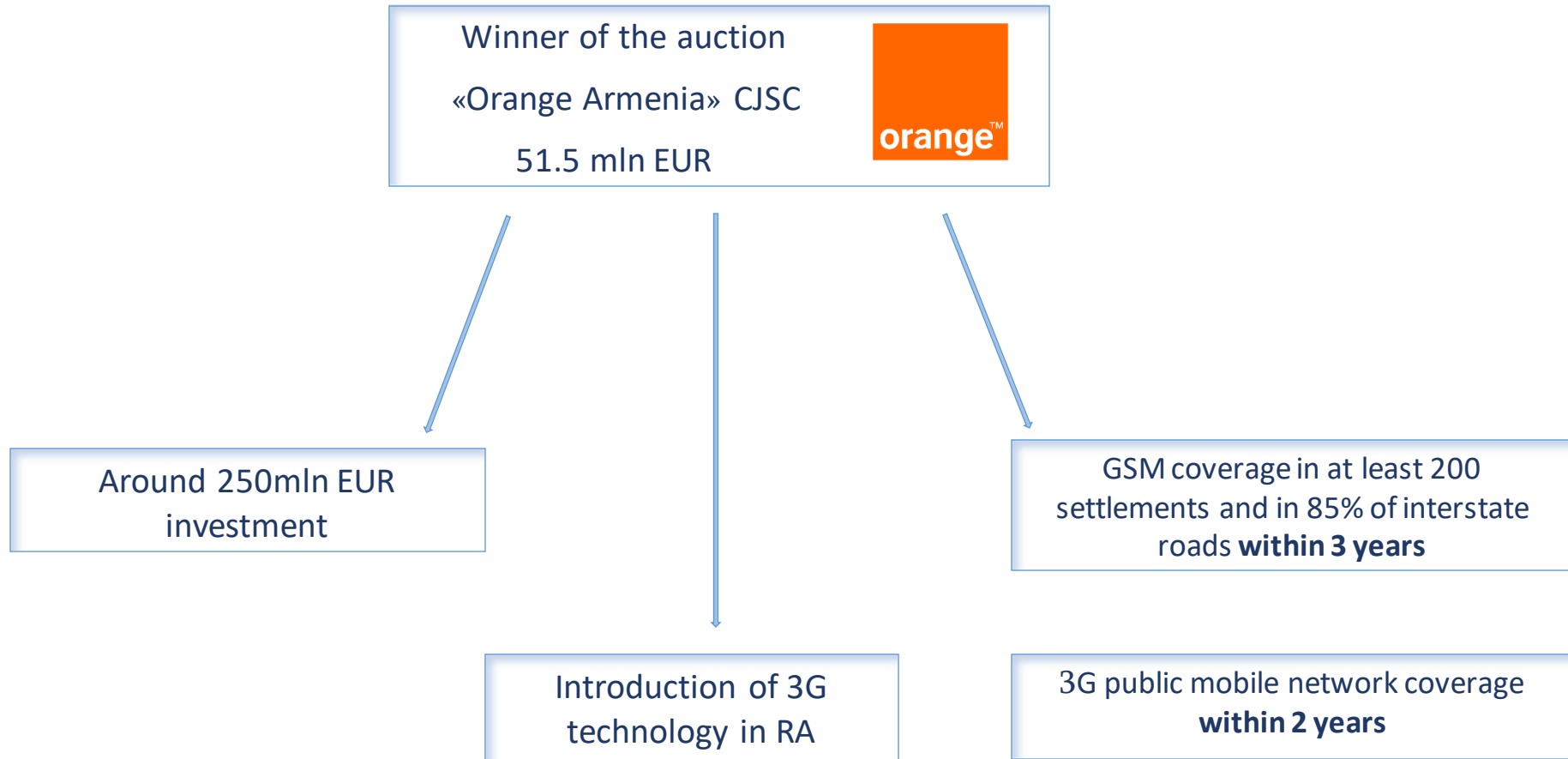


925 settlements (92.3%) have public mobile network coverage of “UCOM” CJSC



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In 2008 third operator entered the market





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Actions aimed at developing mobile network coverage

In 2013 18 settlements were net covered with mobile network coverage



The operators were obliged to ensure mobile network coverage in 18 settlements which were not covered

6 settlements by each operator

On January 1 2014

all RA settlements were ensured with mobile network coverage of at least 1 operator



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In 2013 the Commission held an auction for first section of 800MHz band



Winner: "UCOM"
CJSC

LTE ADVANCE/4G+

80% of RA settlements **within two**
years

Later the obligation was raised to **88%**
of RA settlements



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In 2019 the Commission held an auction for second section of 800MHz band

LTE ADVANCE/4G+

VIVA^{CELL} MTS

**Winner: "MTS Armenia"
CJSC**

12% of RA settlements (which do not have 4G+ coverage) within one year

80% of RA settlements within two years



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In 2022 the Commission held an auction for 700MHz band



**Winner: “Telecom
Armenia” CJSC**

To ensure coverage in 80% of RA settlements (as a result 80% of RA settlements will be ensured with 4G+ coverage of 3 operators, whereas currently there is **21.8%** mutually penetrated coverage of 3 operators)

Introduction of **5G technology** in Yerevan and two major cities



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Public Fixed Network Coverage

In 2006 **more than 200 settlements** were not ensured with fixed telephony access coverage



Currently **all RA settlements** are ensured Public fixed telephony networks and broadband internet service access coverage using wired and/or wireless technologies

666 (66.5%) settlements are covered with fiber-optic networks based on FTTx technology with an annual growth rate of at least 10%

Out of 206 licensed operators 173 were issued network license for exploitation of public electronic communication networks in RA regions' settlements



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Actions aimed at developing fixed network coverage

Improvement of the business environment and simplification of administration by the Commission, including:

- reduction of license fees (decreased by at least 5-6 times)
- permit fees (for wireless networks in rural areas)
- simplification of licensing procedures (allocation timings, simplification of documentation)

Development of competition in the sector, with the construction of fiber optic backbone networks by large operators and the entry of new communication operators in regions

Definition of license obligations established by the commission regarding the development of fixed communication infrastructures and provision of access to new technology services



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Actions aimed at developing fixed network coverage

In 2006 by fulfilling the obligations set for incumbent operator "ArmenTel" CJSC, 376 settlements were ensured with fixed telephony of CDMA wireless technology coverage.

In 2015 the company was obliged to provide 996 settlements with access to broadband Internet services by upgrading the telephone network of CDMA technology.

By fulfilling the obligations enshrined by the permits for the use of the fixed telephony number resource provided to the 2 major fixed telecom wholesale companies, during 2013-2018, around 50 settlements of the Republic (including all urban settlements) were ensured with access to the optical fiber network.



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As a result of the all above mentioned activities:

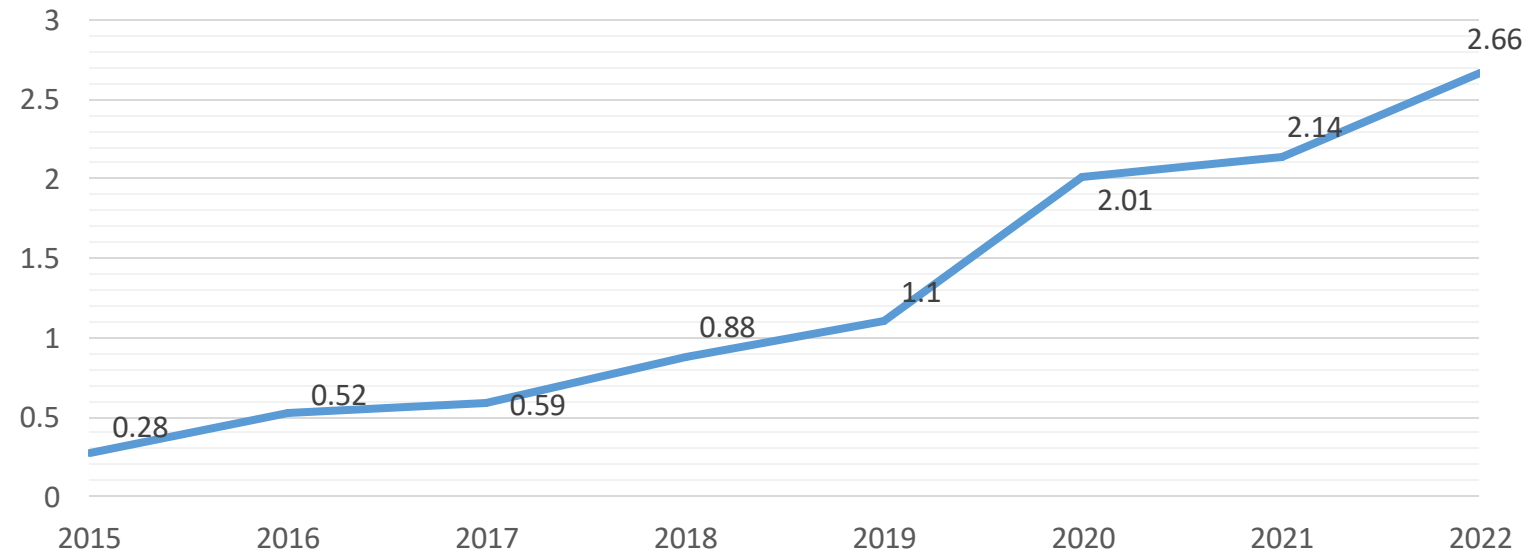
Between 2006 and 2023 IP transit capacity has increased by **13 000** times

Between 2006 and 2023 price for 1Mbit/sec of IP transit capacity has decreased by **10 700** times



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Capacity of used fixed (wired) broadband internet (in exabits) in 2015-2022

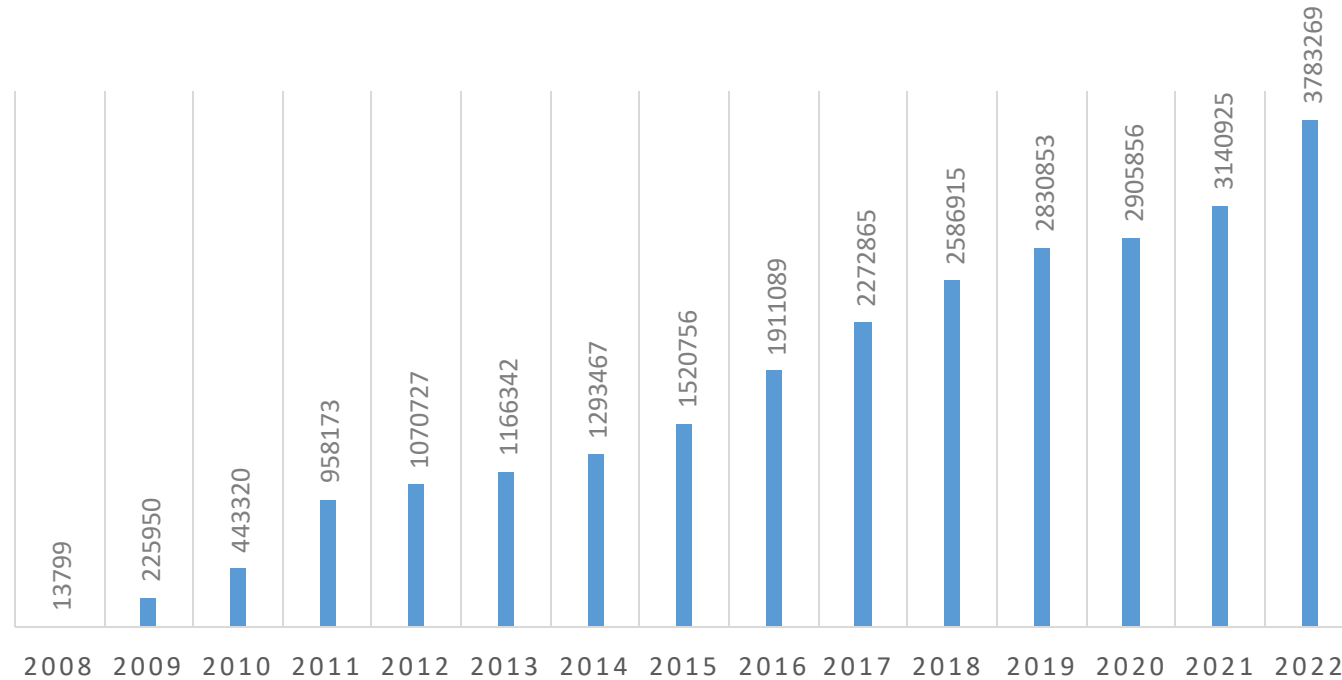


Has increased for 10.6 times



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Number of subscribers of broadband in 2008-2022

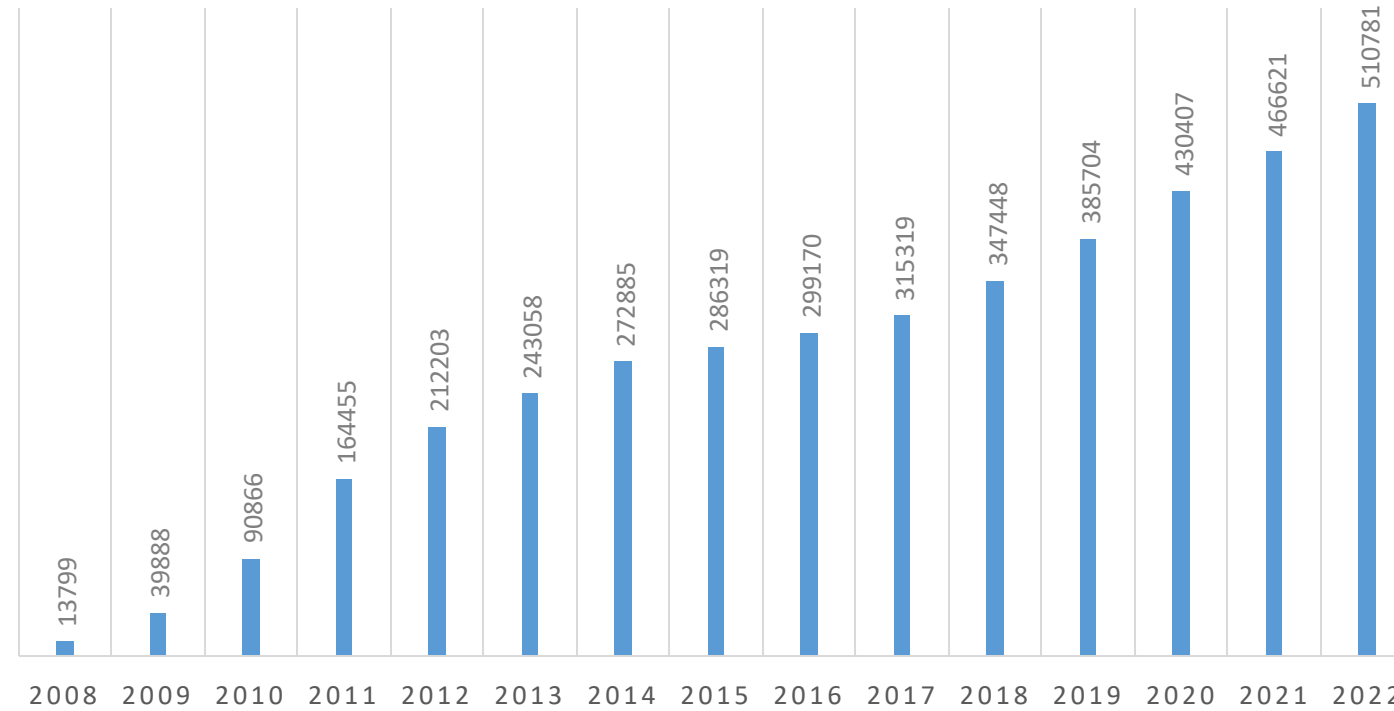


Has increased for 274 times



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Number of subscribers of fixed broadband in 2008-2022



Has increased for 37 times



Thank you for your attention!

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