



**COMMUNICATIONS
REGULATORY COMMISSION
OF MONGOLIA**

2022

MAIN INDICATORS OF
COMMUNICATIONS
LICENSED SERVICES



CONTENT



1. Number of license



2. Mobile service



3. Fixed telephone service



4. Communications network



5. Internet service



6. Domain name



7. Broadcasting service



8. Postal service



9. Economic indicator

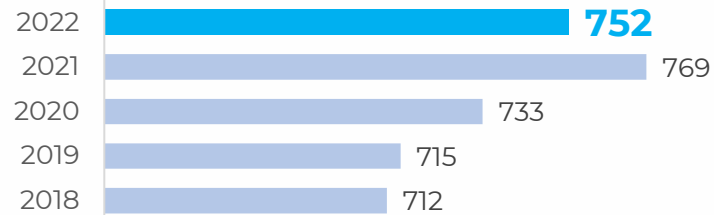


10. Human resource indicator

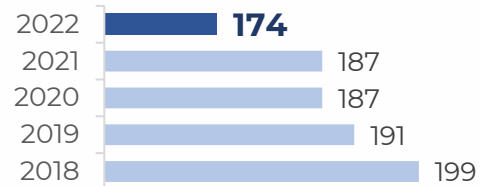


1. NUMBER OF LICENSE

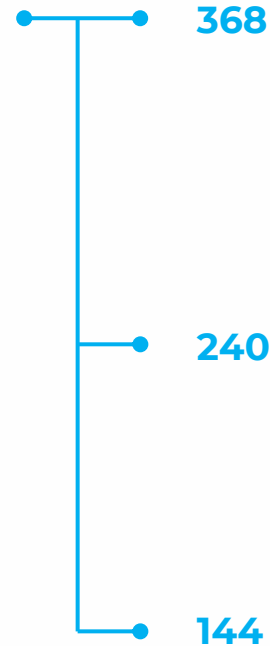
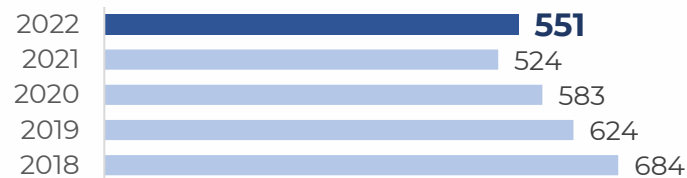
Number of service license



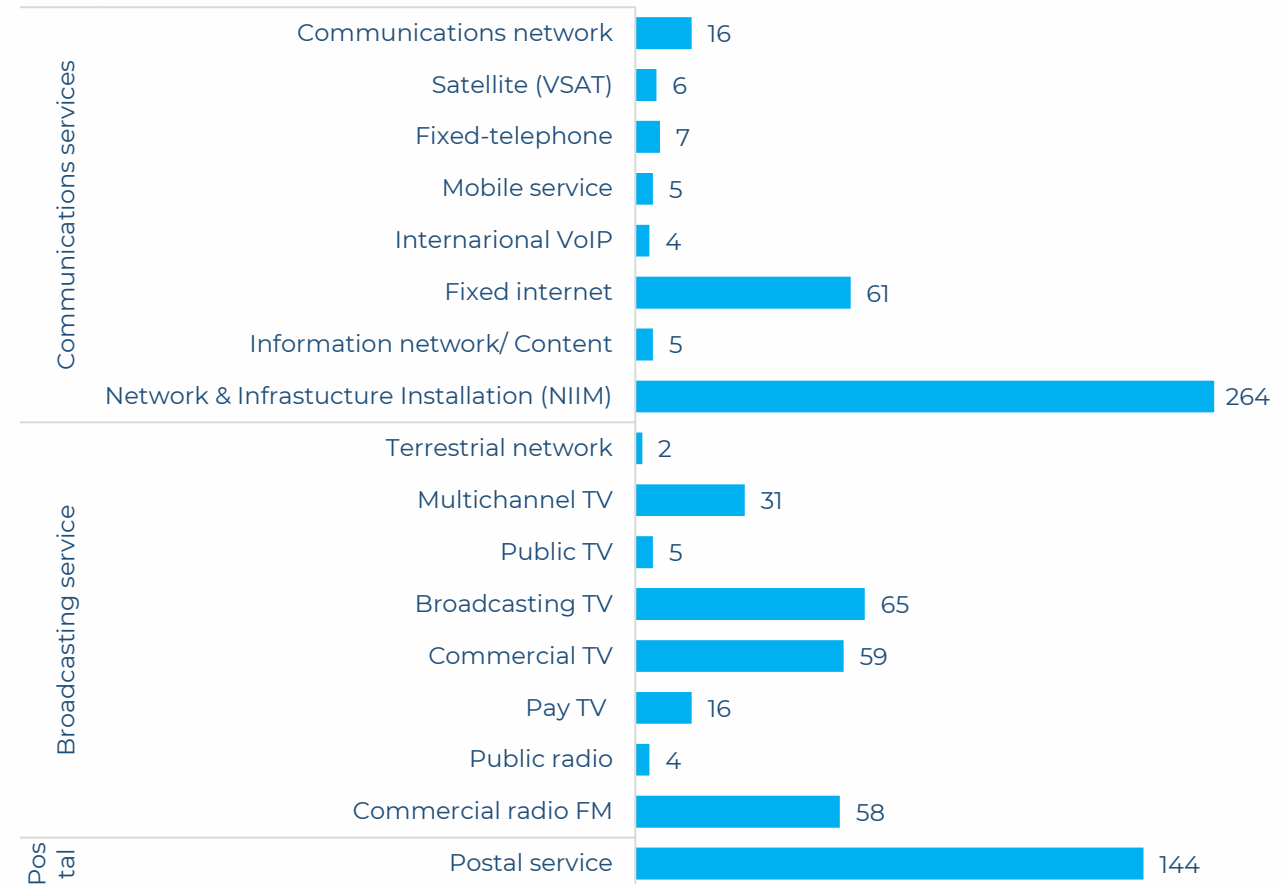
Number of radio frequency license



Number of frequency certificate

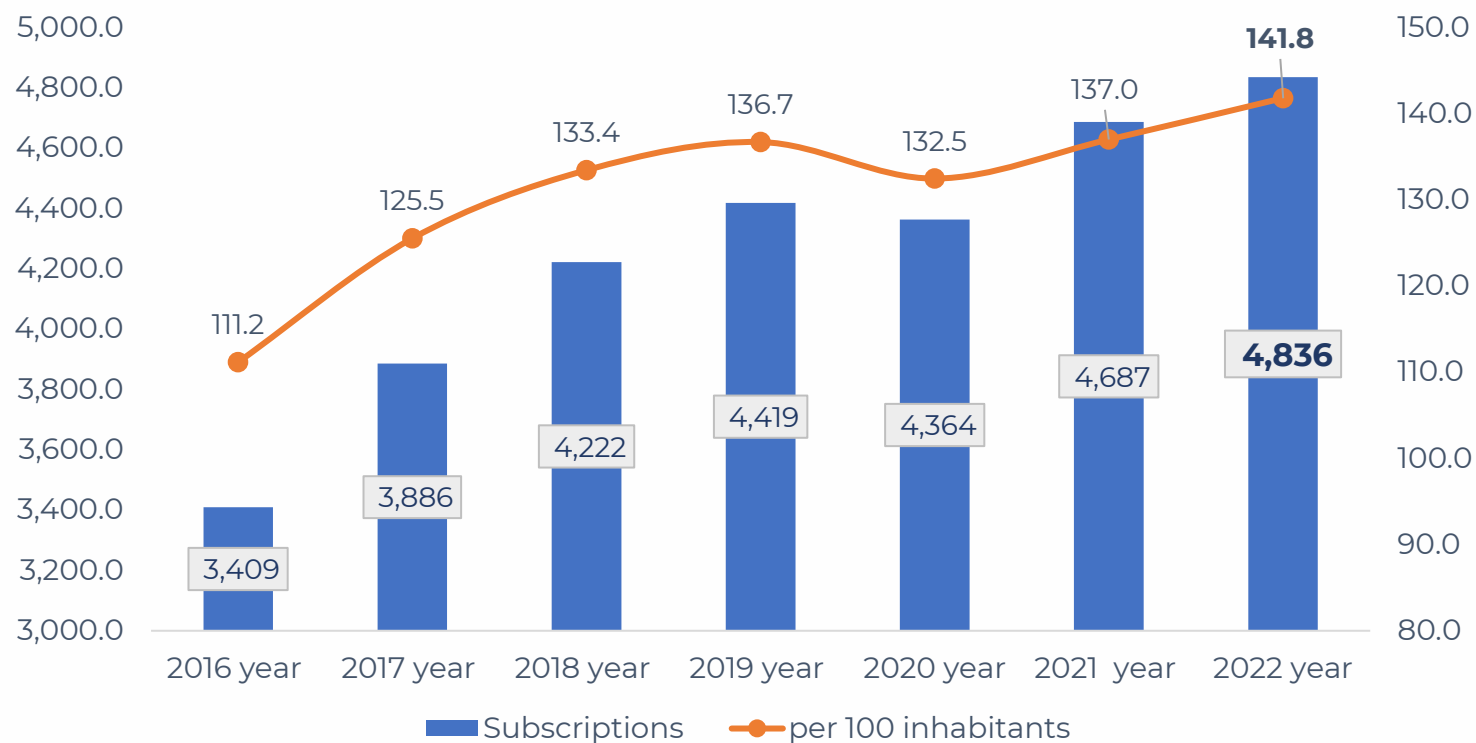


Number of service license, by type





2.1 Mobile-cellular subscriptions /thousand subs/ active



4,835,520



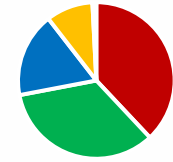
141.8 %



Mobile-cellular subscriptions per
100 inhabitants

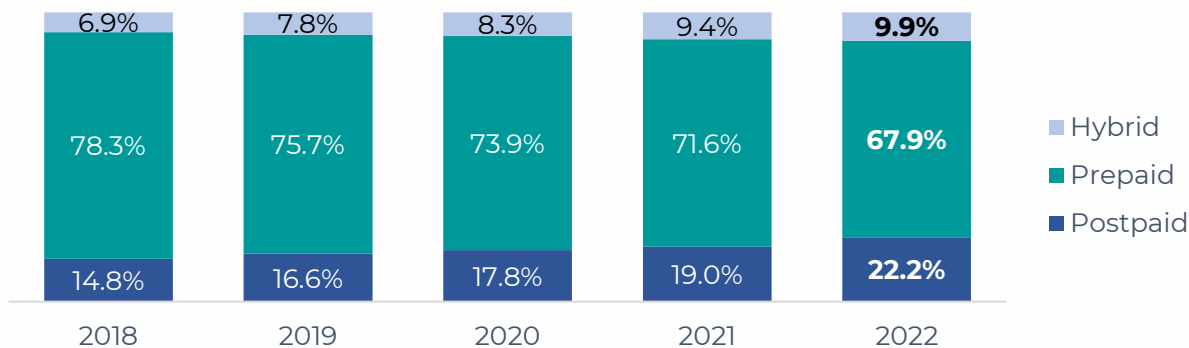


2.2 Mobile-cellular MARKET SHARE

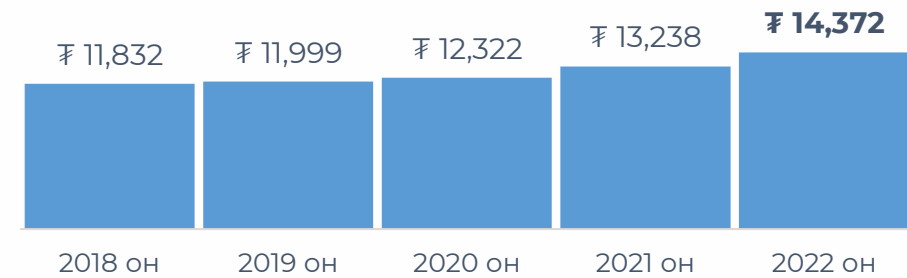


NAME	2018	2019	2020	2021	2022
MOBICOM CORPORATION LLC	37.8%	38.0%	38.2%	38.3%	38.0%
UNITEL LLC	34.0%	33.1%	32.2%	34.3%	34.0%
SKYTEL LLC	16.5%	17.4%	18.1%	17.7%	17.5%
GMOBILE LLC	11.7%	11.5%	11.6%	9.7%	9.7%
ONDO LLC					0.8%

Mobile-cellular subscriptions;
by payment type



Mobile /ARPU/

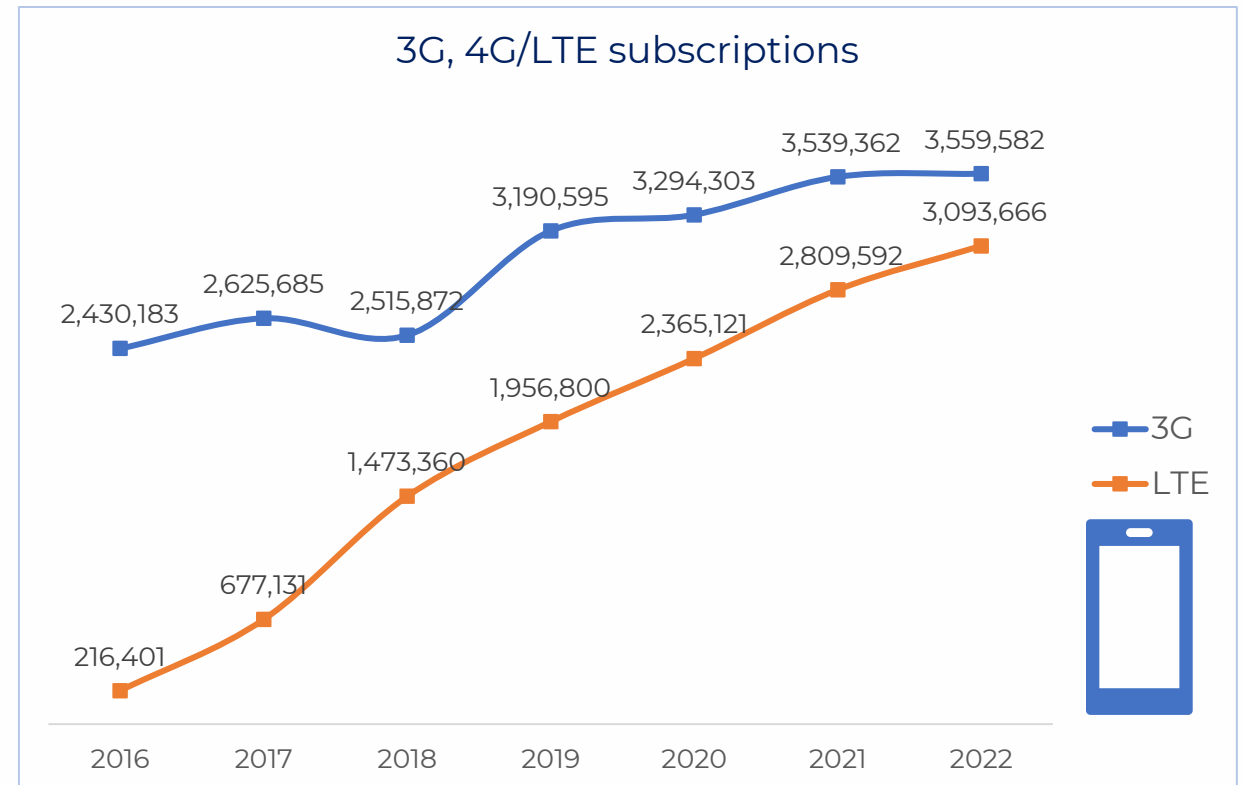
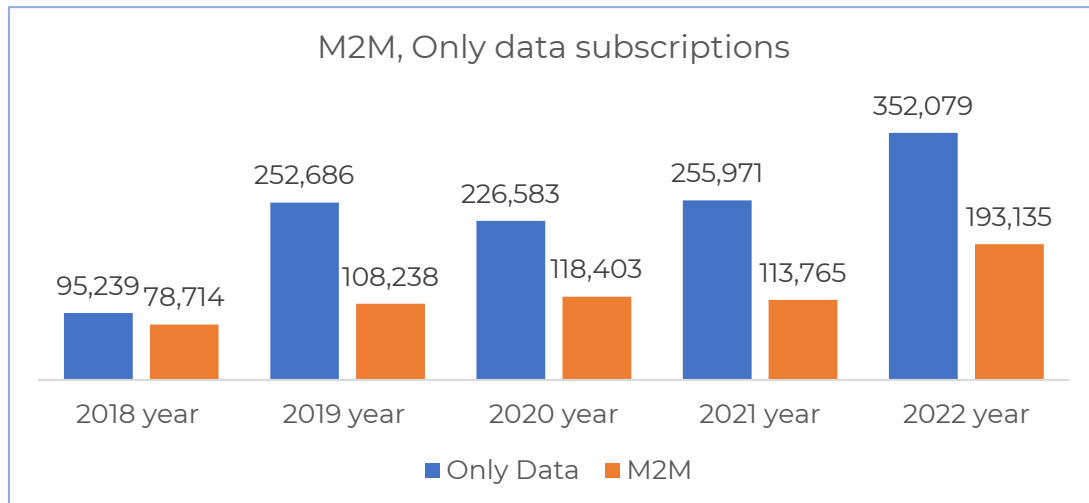




2.3 Mobile-broadband subscriptions



Year	Data and voice	Only data	M2M
2018	3,325,317	95,239	78,714
2019	3,351,665	252,686	108,238
2020	3,353,188	226,583	118,403
2021	3,633,268	255,971	113,765
2022	3,644,821	352,079	193,135



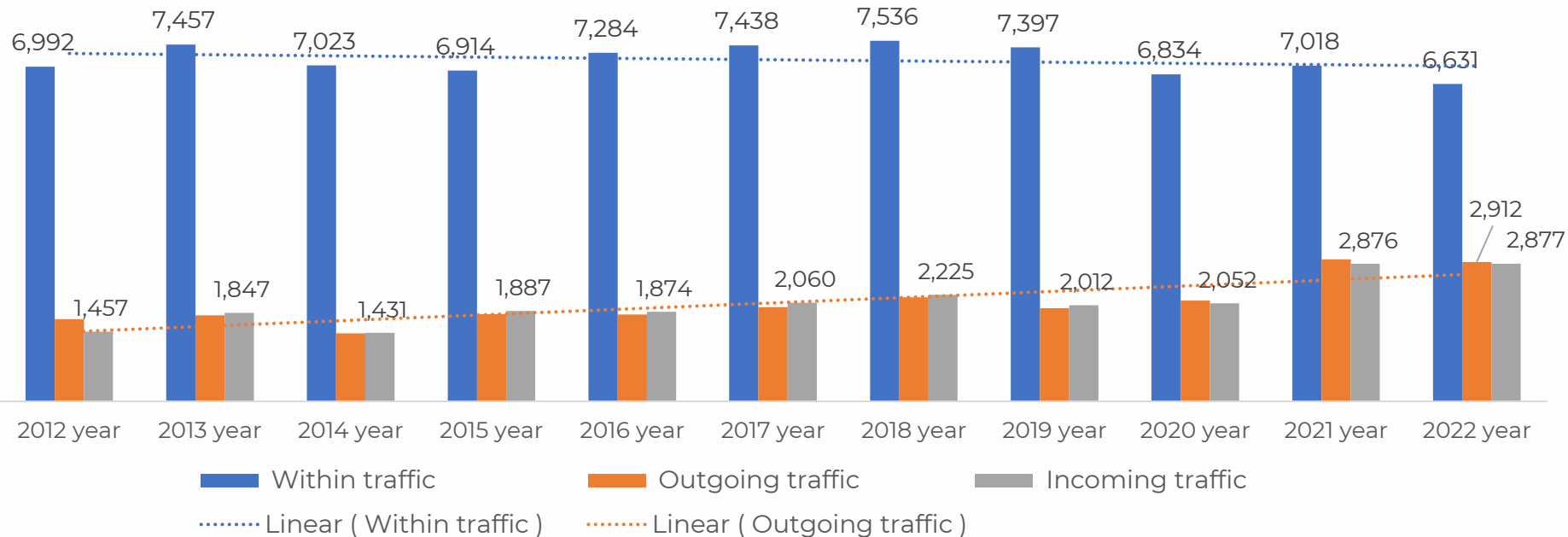
	2018	2019	2020	2021	2022
Mobile broadband LTE/Wimax Smart set up box subscriptions	101,959	102,185	114,602	136,030	133,851



2.4 Total traffic of mobile network

Data/Traffic – **VOICE**, SMS, Data

Total traffic of mobile network, **million minutes**



On average, **7.4** minutes voice traffic was generated per user **per day**.

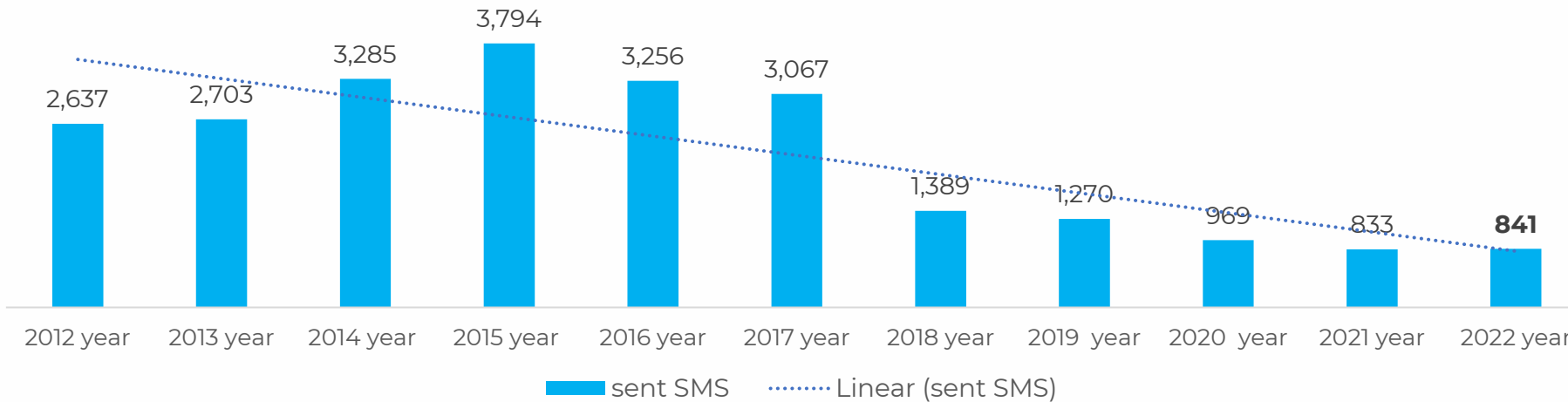




2.5 SMS sent

Data/Traffic – VOICE, **SMS**, Data

Number of SMS sent, **million**



On average, **14** text messages were sent per mobile user **per month**.

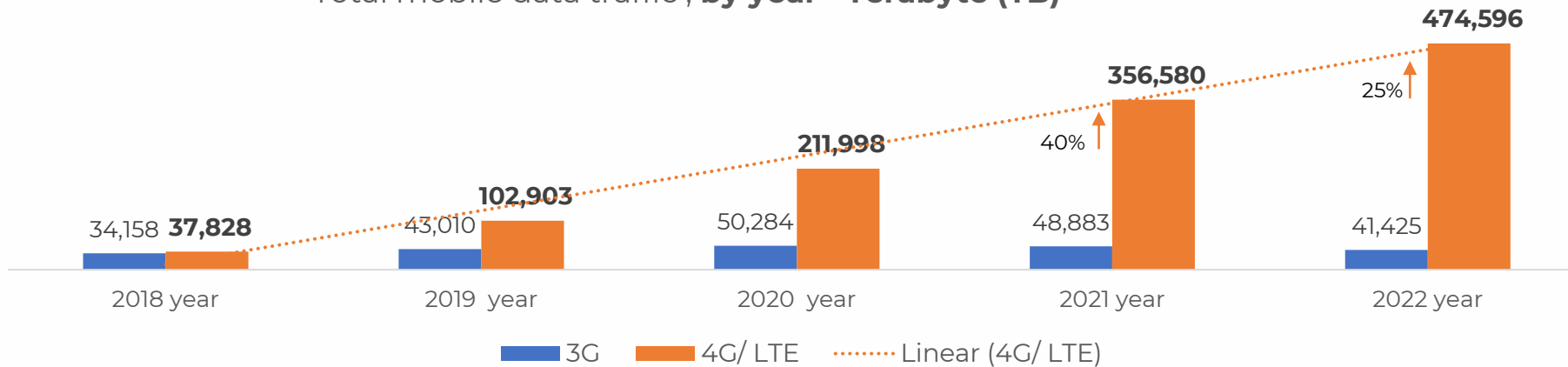




2.6 Mobile broadband data traffic

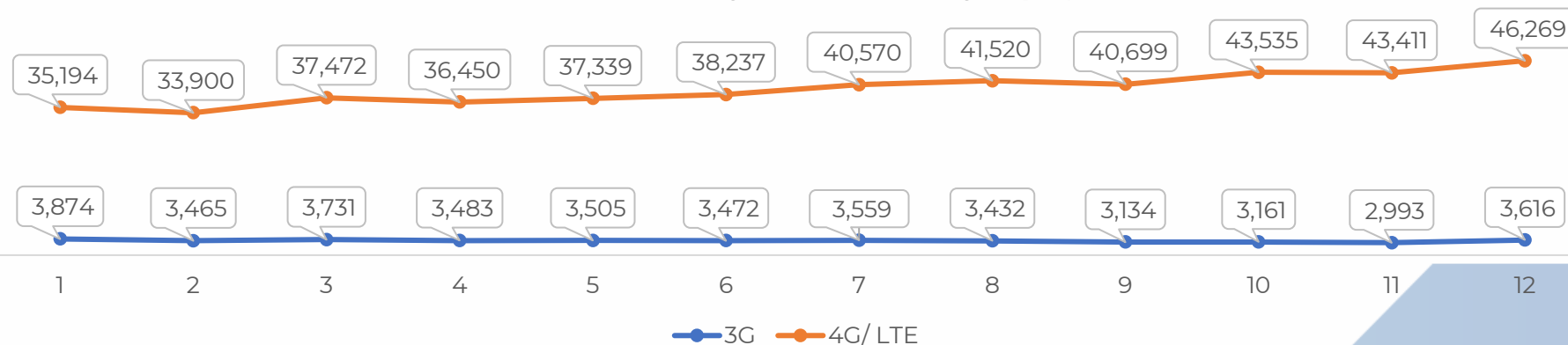
Data/Traffic – VOICE, SMS, **Data**

Total mobile data traffic , by year - Terabyte (TB)



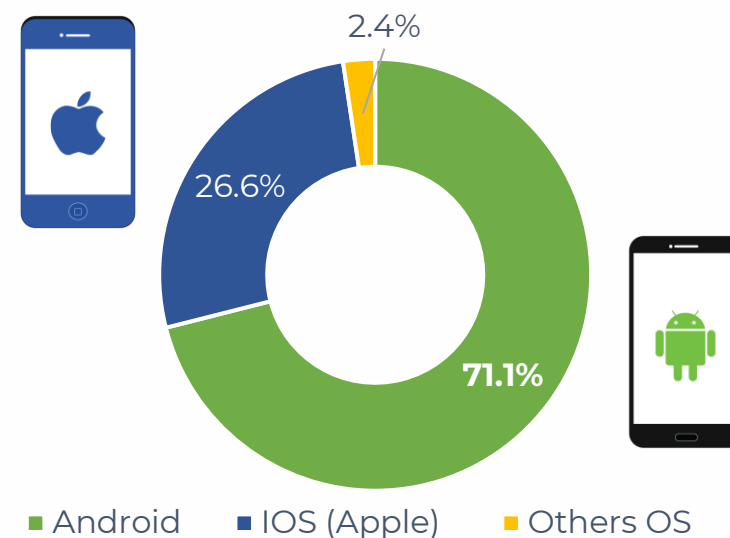
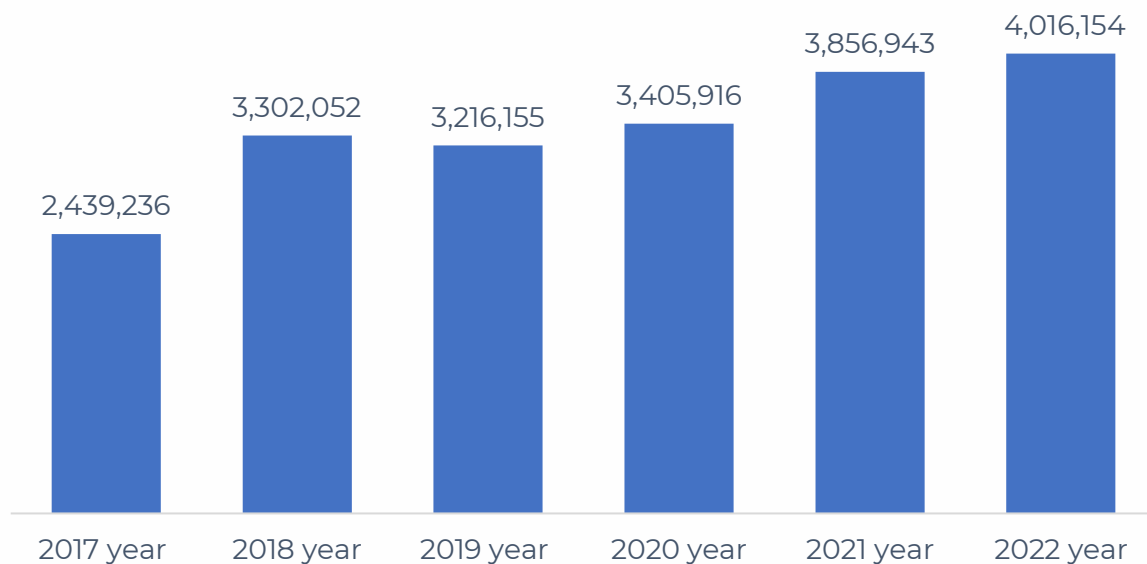
On average, **12.8** GB of data was used per mobile **LTE** user per month.

Mobile data traffic, by month - Terabyte (TB) 2022 year





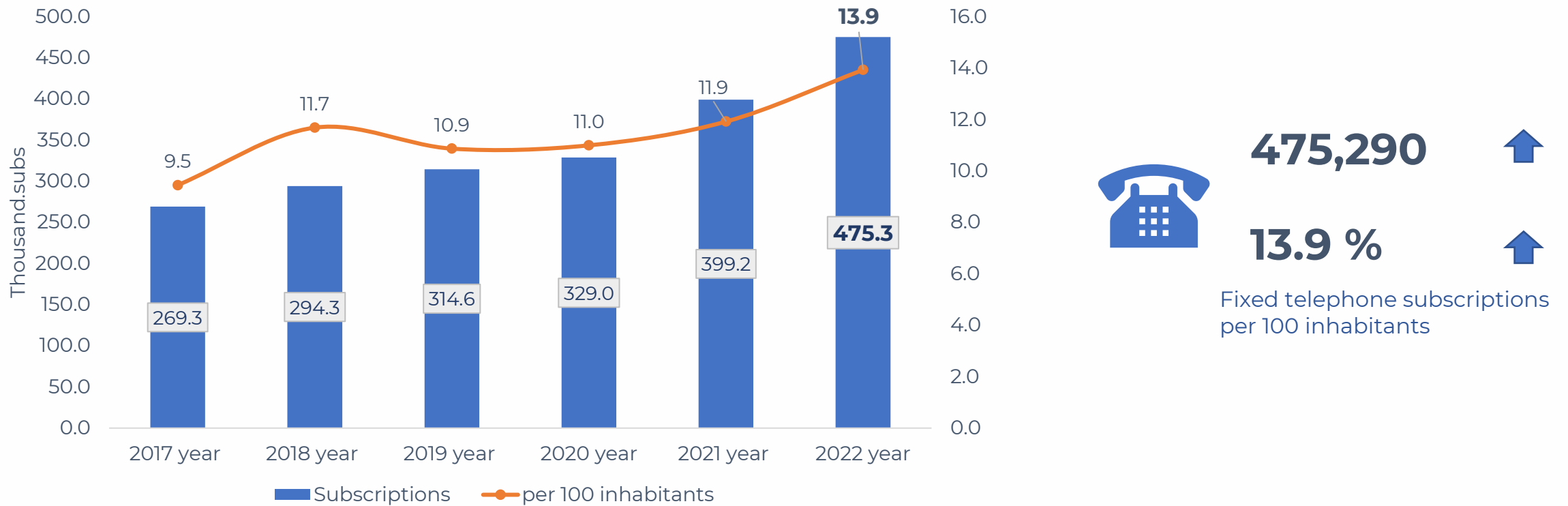
2.7 Number of smart device users



	Android	IOS (Apple)	Others	Total
2021 year	2,843,720 (73.7%)	766,748 (19.9%)	246,475 (6.4%)	3,856,943
2022 year	2,853,681 (71.6%)	1,066,465 (26.5%)	96,008 (2.3%)	4,016,154



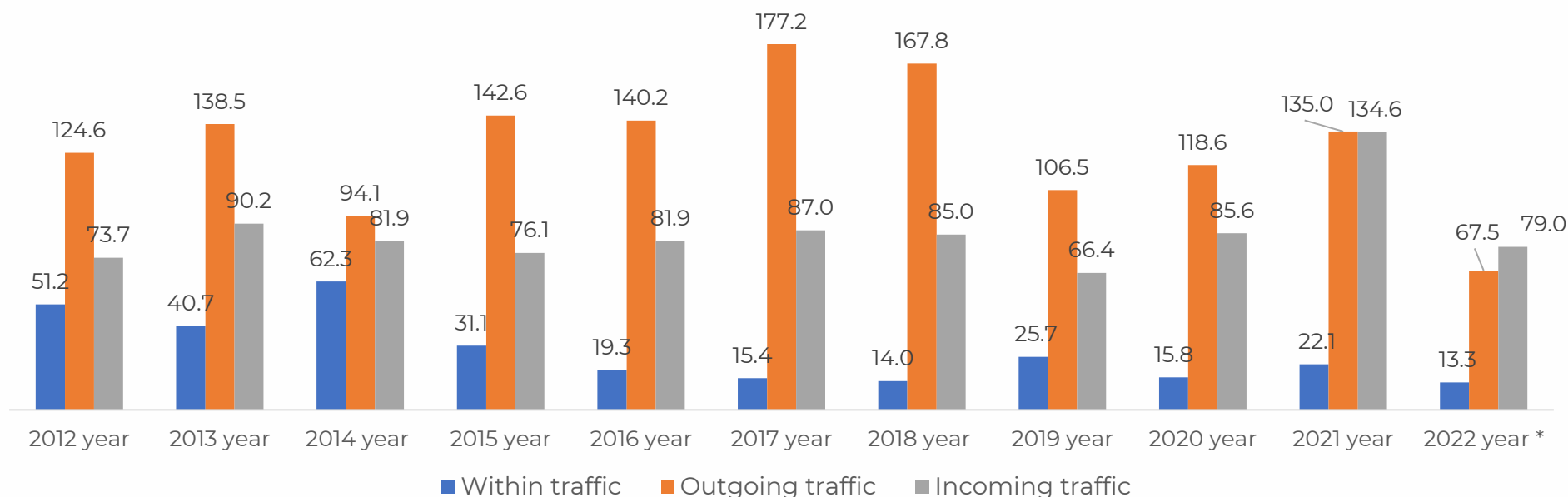
3.1 Number of fixed -telephone subscriptions active subs





3.2 Total traffic of fixed-telephone network

VOICE TRAFFIC, million. minute



On average, **2.7** minutes voice traffic was generated per fixed-telephone user per day.



4.1 COMMUNICATIONS NETWORK

TRANSMISSION NETWORK /KM/

Licensee name	2019 year	2020 year	2021 year	2022 year	National	Local
Gemnet LLC	2,265	2,265	2,265	2,265	2,265	
Skynetworks LLC	10,880	11,960	12,195	12,624	10,200	2,424
Mobicom networks LLC	11,685	12,572	12,895	13,064	10,701*	2,363
Netcom LLC	18,869	19,239	19,548	19,676	19,549	127
MT networks LLC	241	241	241	723	723	
Iron tower LLC	-	65	134	134	65	69
STBS LLC				120		120
Ondo networks LLC				40		40
Total	43,940	46,342	47,278	48,644	41,237	7,407

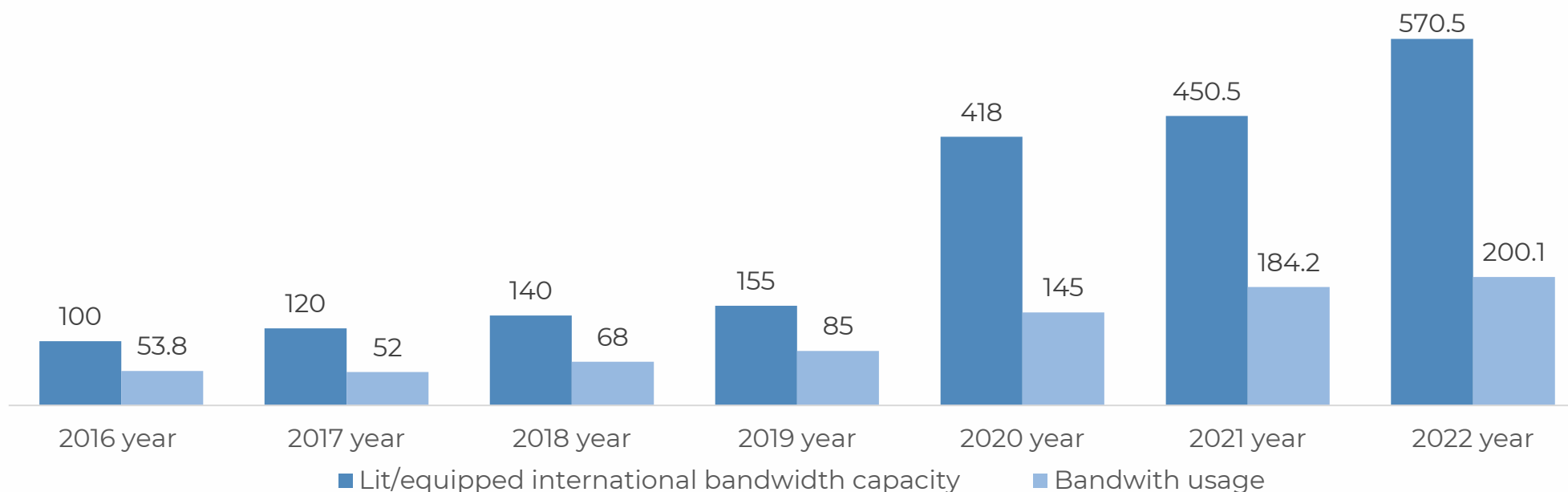
* Radio relay included





4.2 COMMUNICATION NETWORK international bandwidth

Lit/equipped international bandwidth capacity ,Gbps



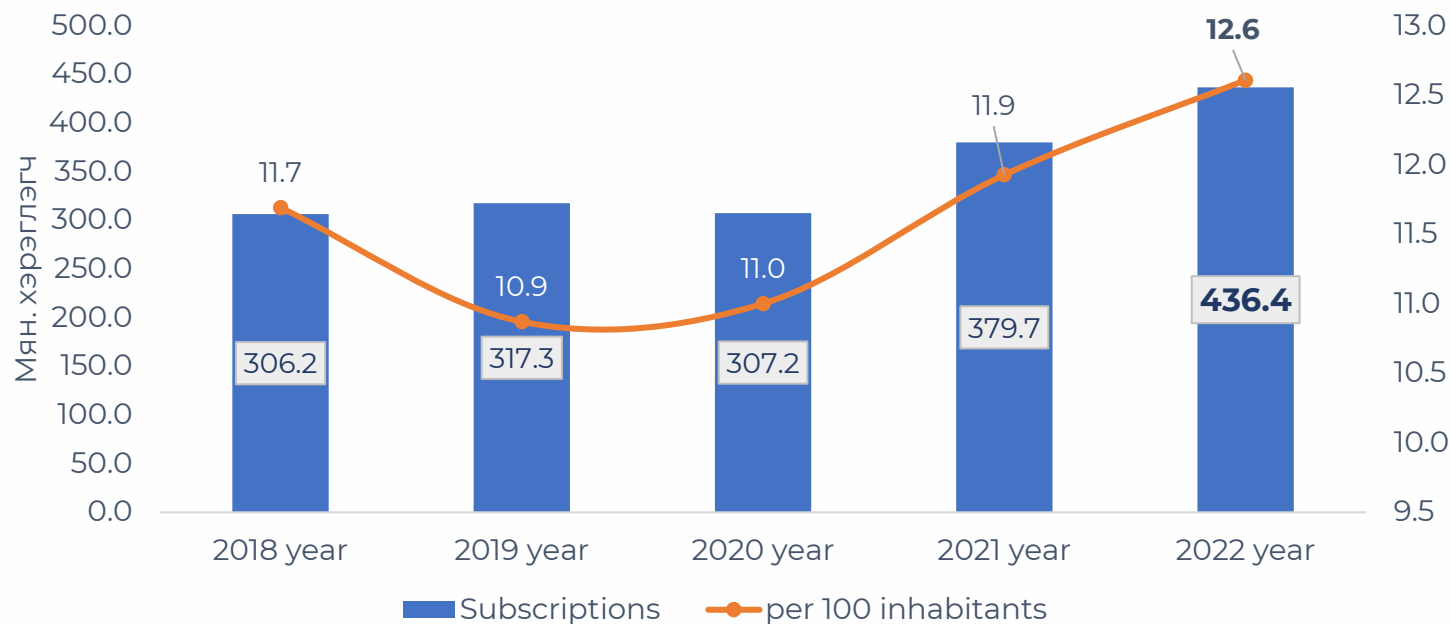
	2021.06.30	2021	2022.06.30	2022
Total international transit bandwidth (Gbps)	1070	1370	1410	1700

2022 year, 51 ISP's are using a total of 200.1 Gbps traffic



5.1 NUMBER OF FIXED INTERNET/BRAODBAND SUBSCRIPTIONS

ACTIVE SUBSCRIPTIONS



436,447*



12.6 %



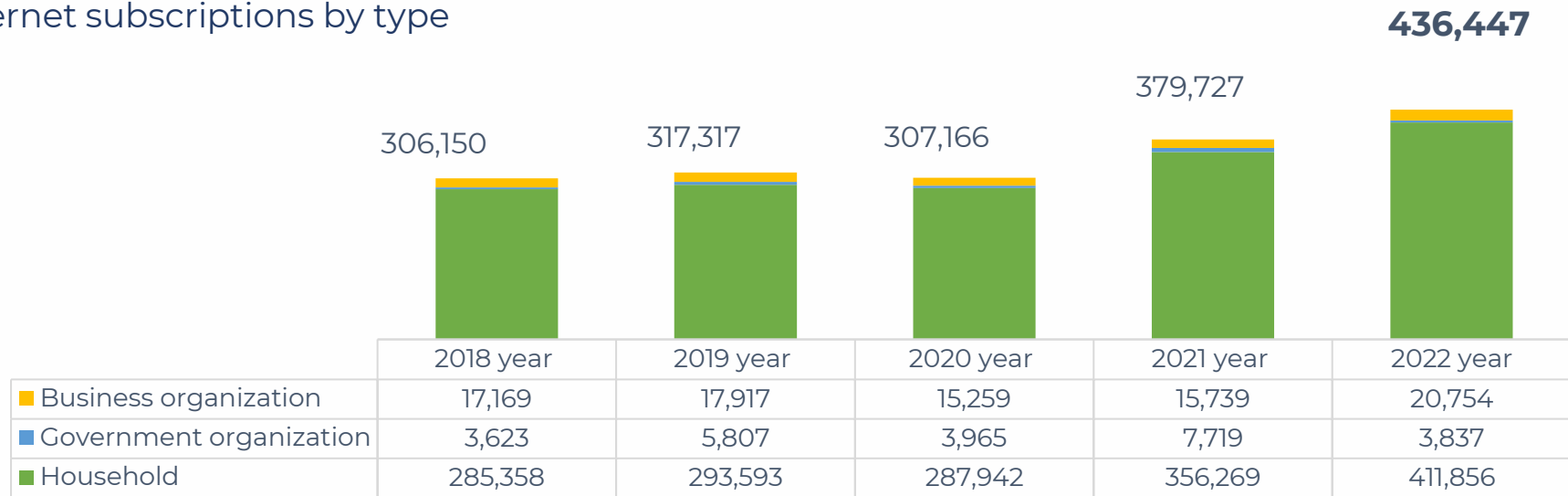
Fixed internet subscriptions
per 100 inhabitants

*Estimate



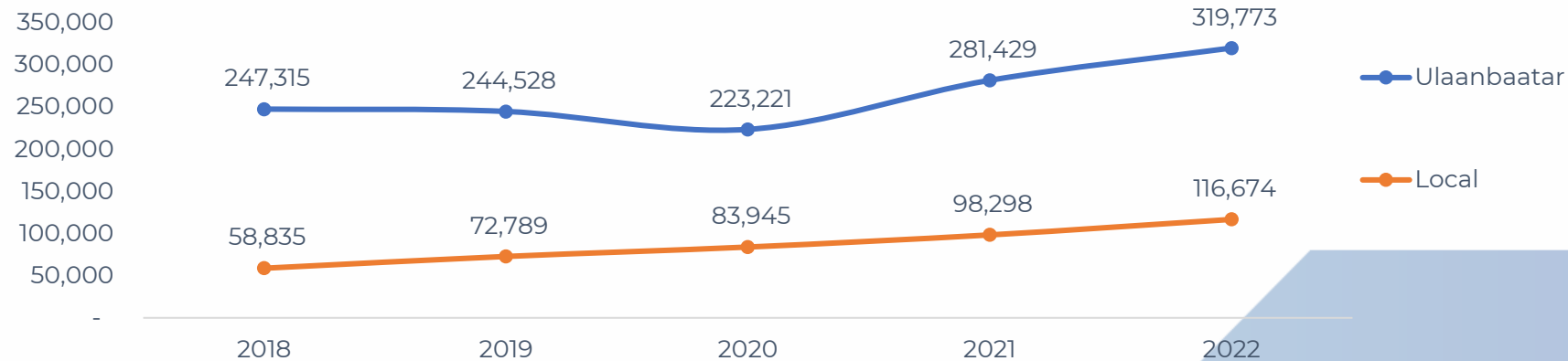
5.2 FIXED INTERNET SUBSCRIPTIONS

Internet subscriptions by type



45.0 % of total households connected to fixed internet.

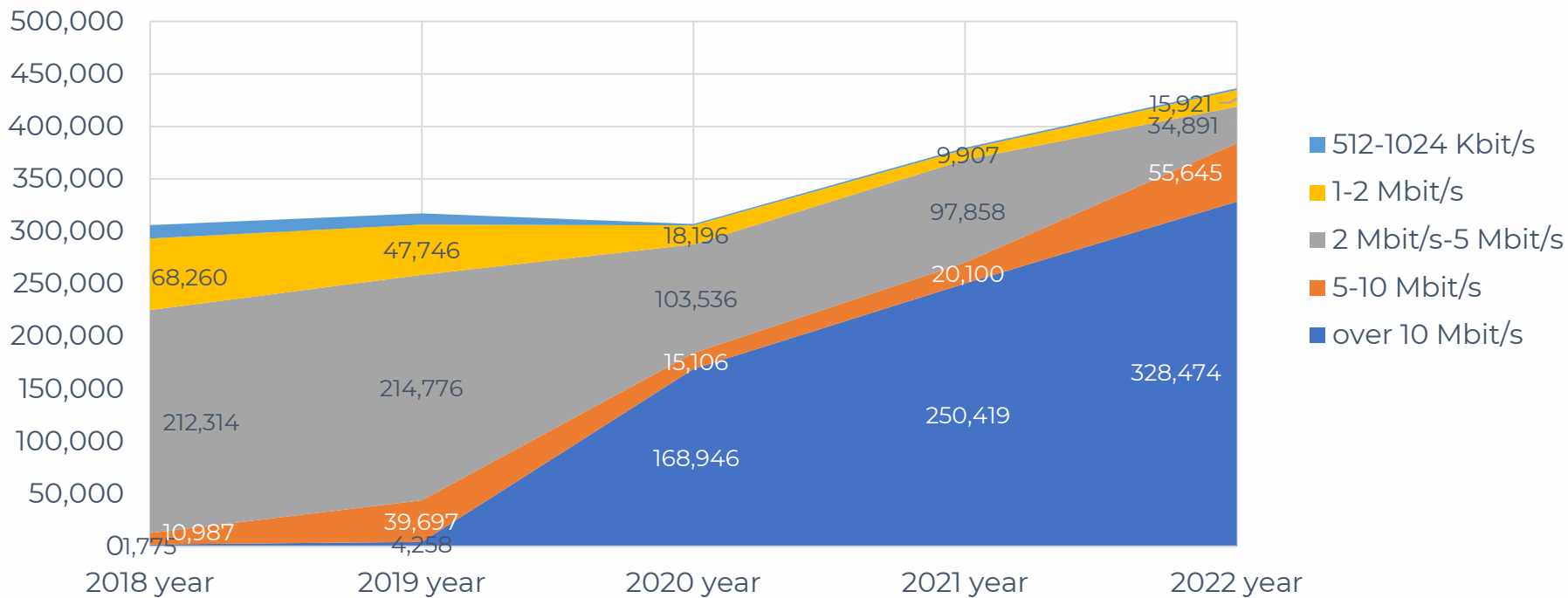
Internet subscriptions by location





5.3 FIXED INTERNET SUBSCRIPTIONS

Internet subscriptions by speed

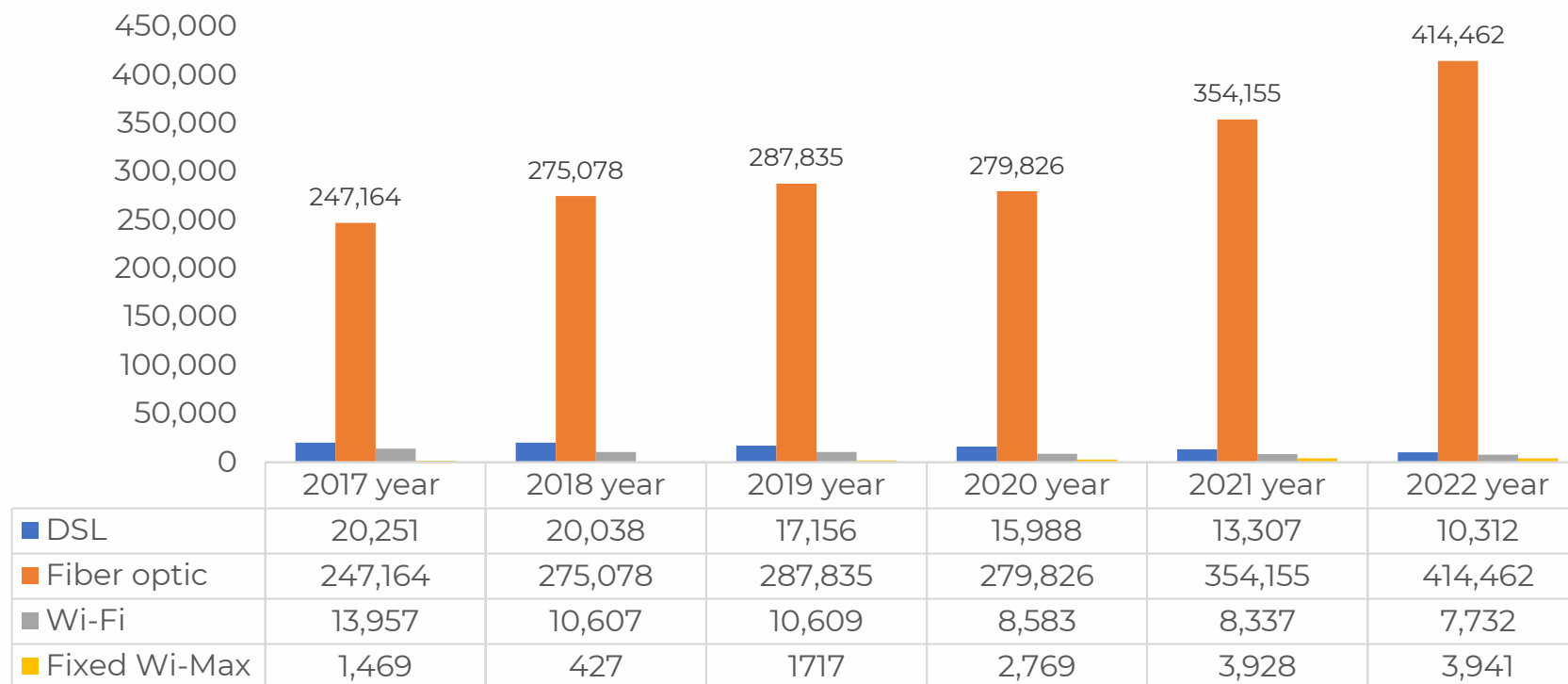


84% of fixed internet users receive internet speeds over 10 Mbit/s



5.4 FIXED INTERNET SUBSCRIPTIONS

Internet subscriptions by technology

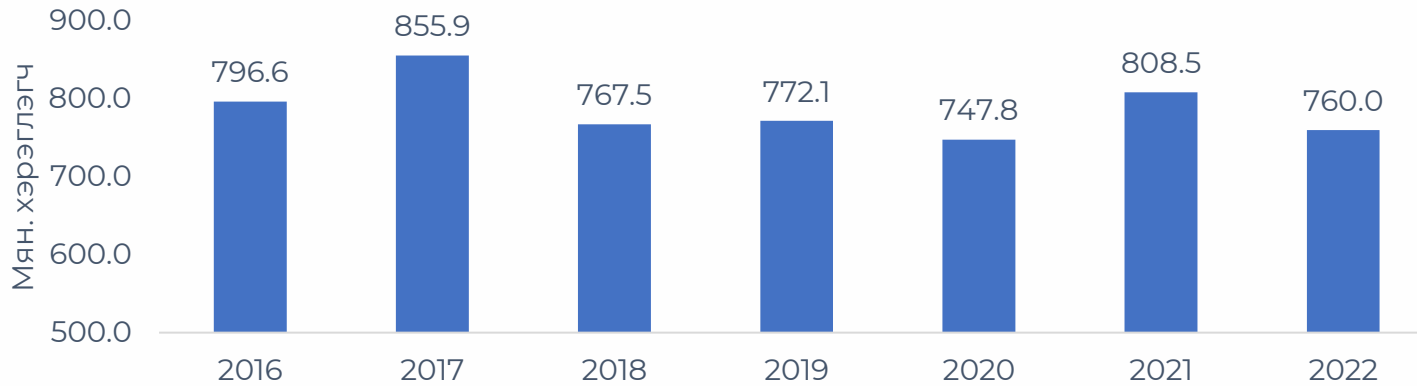


95.0 % of fixed internet users receive their internet through fiber optic.



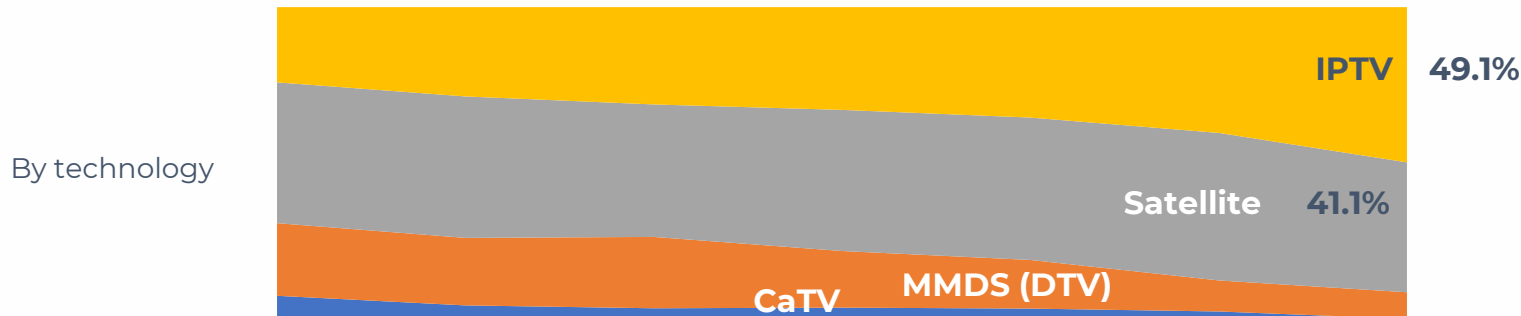
6.1 BROADCASTING

Number of multichannel TV subscriptions



760,028*

~82 % of total households receive multichannel service.



	2016 year	2017 year	2018 year	2019 year	2020 year	2021 year	2022 year
■ IPTV	189,281	241,797	236,394	250,856	260,890	321,732	372,809
■ Satellite TV	354,721	382,401	321,357	344,740	336,844	376,539	312,280
■ MMDS/DTV	182,761	182,887	172,717	137,566	115,232	79,302	63,758
■ Cable TV	69,846	48,823	37,011	38,911	34,831	30,890	11,181

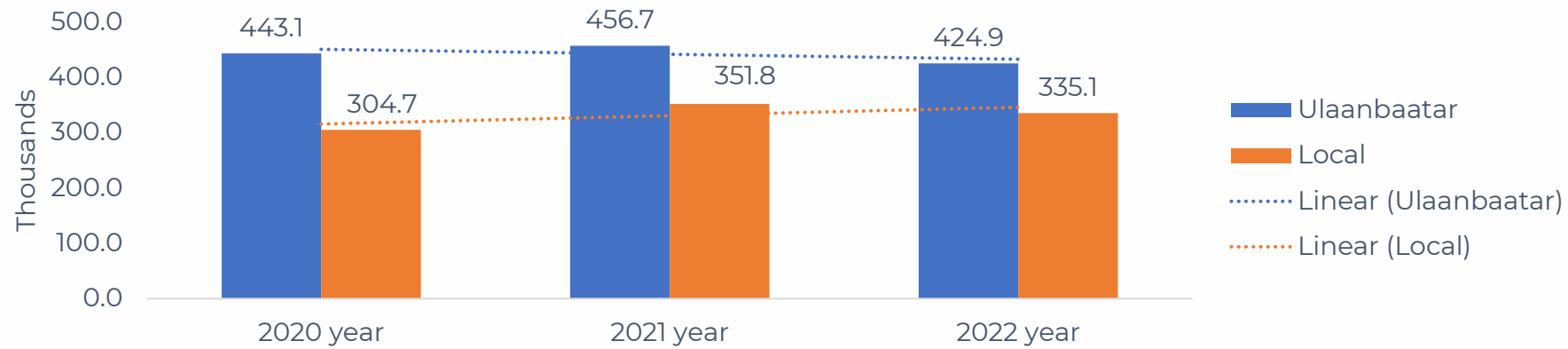
8.4%
1.5%

** Not included terrestrial TV and OTT service.*

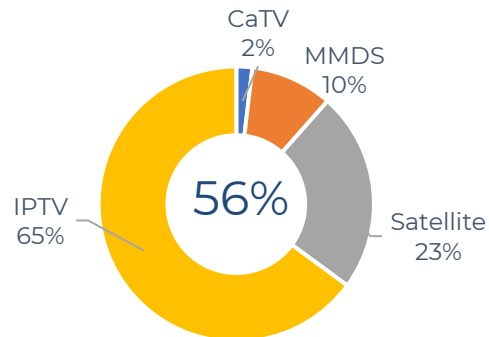


6.2 BROADCASTING

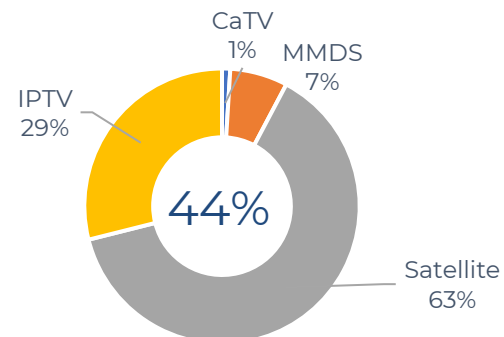
Number of multichannel TV subscriptions
(active subs)



Ulaanbaatar



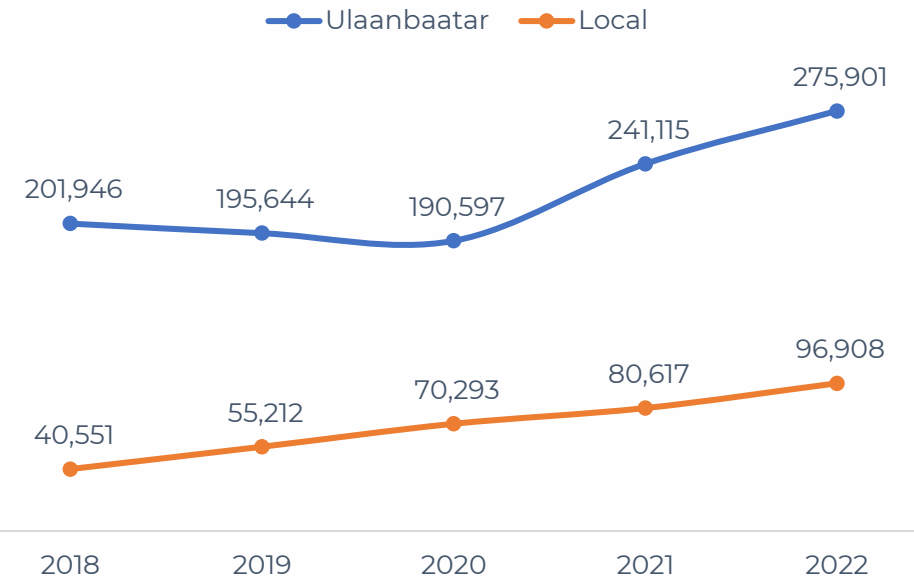
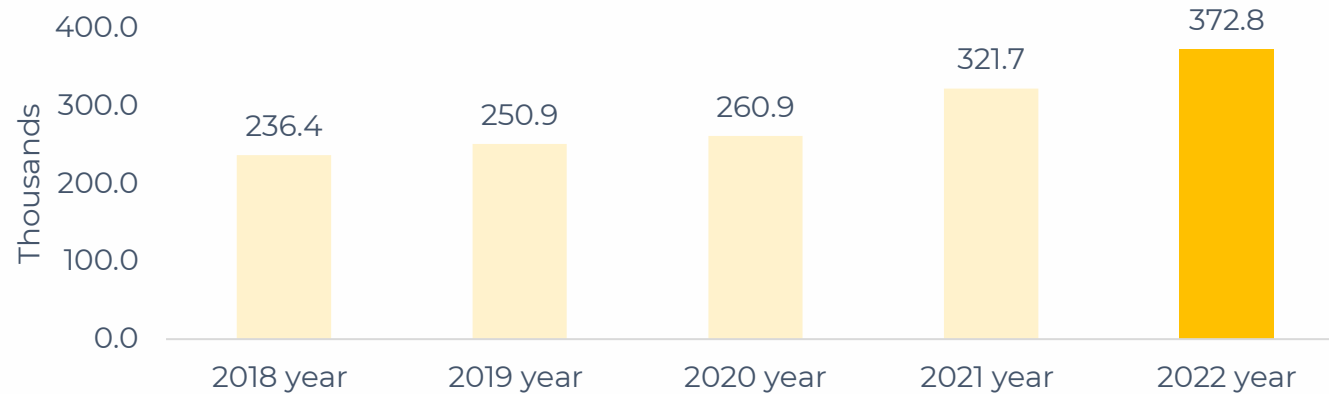
Local





6.3 BROADCASTING

IPTV subscriptions (active subs)



IPTV subscriptions by service type

YEAR	IPTV	IPTV+VOIP	IPTV+VOIP+ INTERNET	IPTV+VOIP+ INTERNET+ WiMax/Mobile	TOTAL
2018 year	14,873	2,666	218,855	0	236,394
2019 year	20,153	2,859	226,595	1,249	250,856
2020 year	7,063	426	252,345	1,056	260,890
2021 year	6,796	2,564	310,683	1,689	321,732
2022 year	8,806	1,420	360,076	2,507	372,809

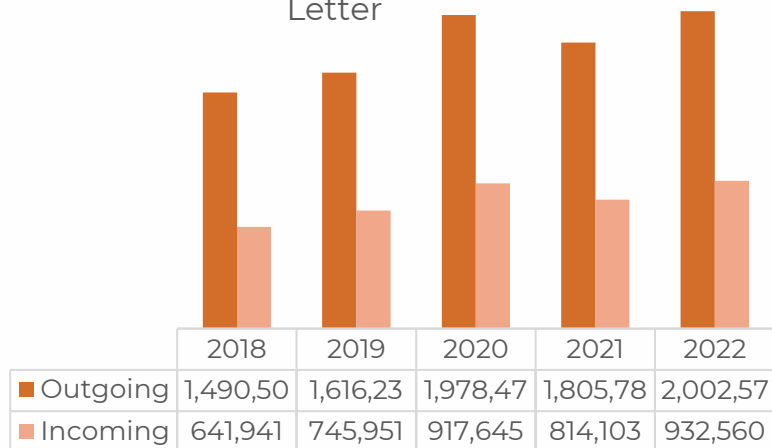


7.1 POSTAL

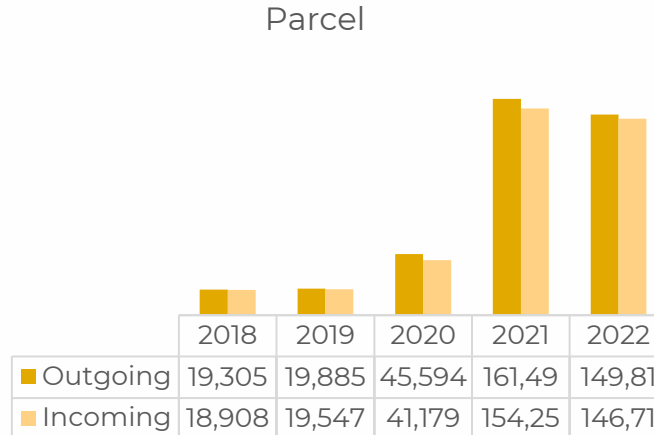
POSTAL SERVICE TRAFFIC

Domestic postal service (unit)

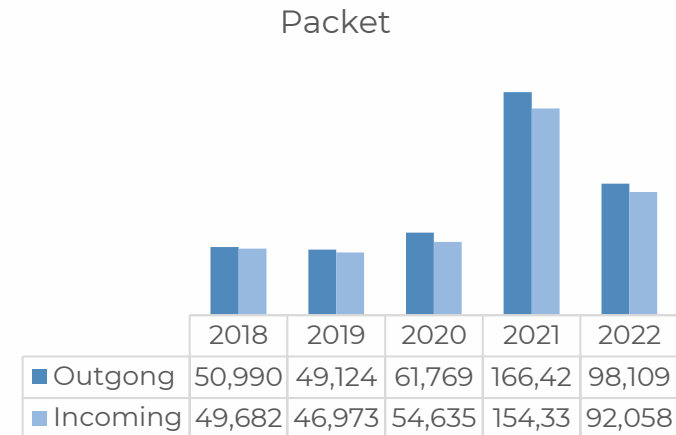
Letter



Parcel

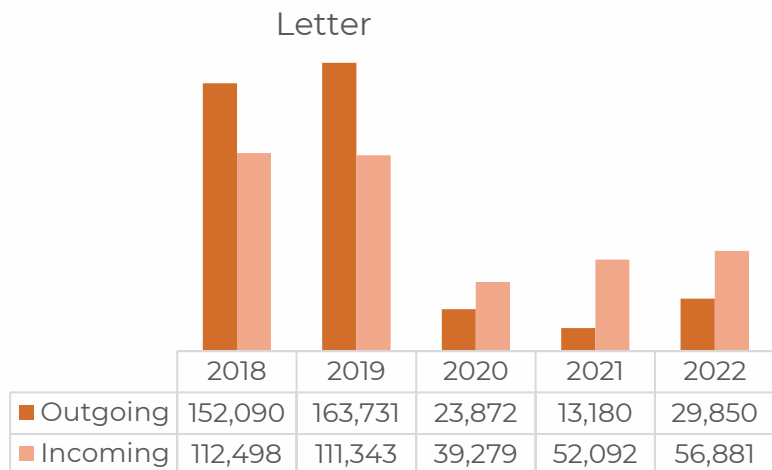


Packet

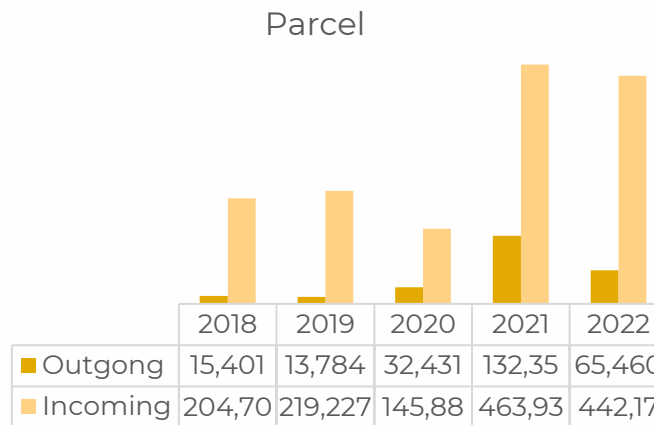


International postal service (unit)

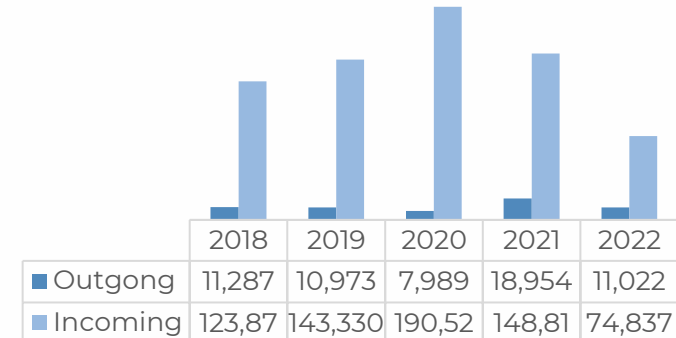
Letter



Parcel



Packet



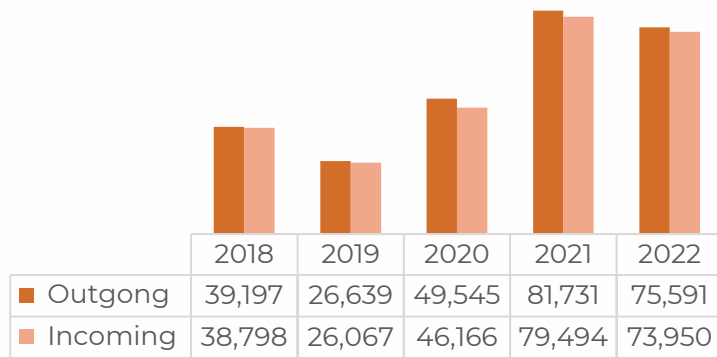


7.2 POSTAL

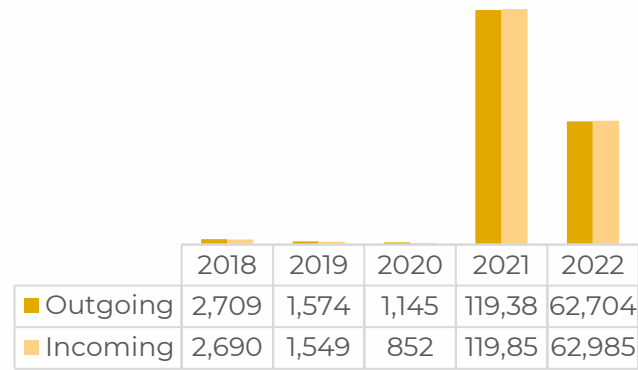
POSTAL SERVICE TRAFFIC

Express postal service/ Domestic (unit)

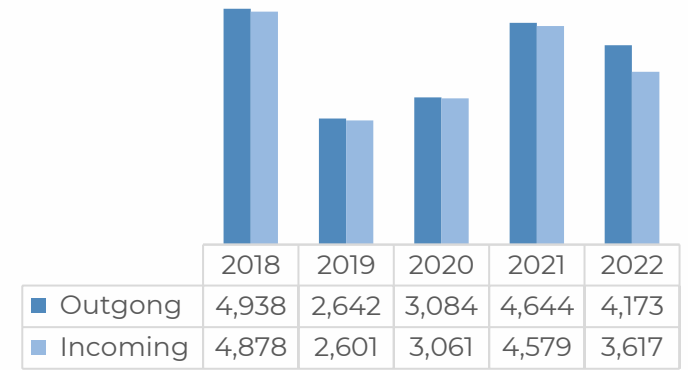
Letter



Parcel

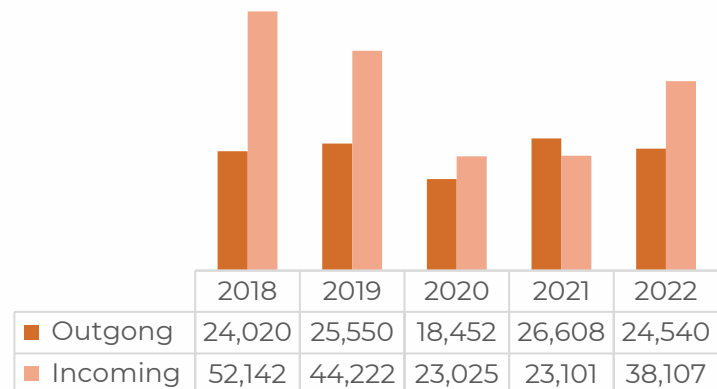


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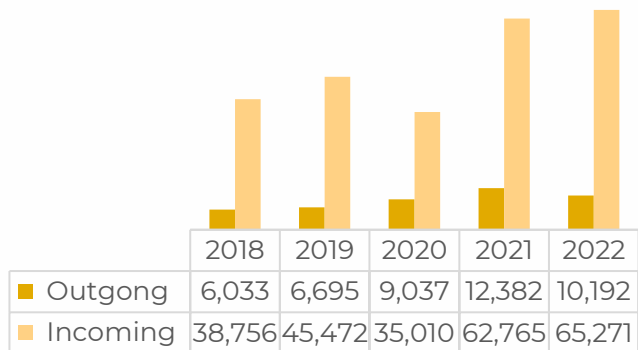


Express postal service/ International (unit)

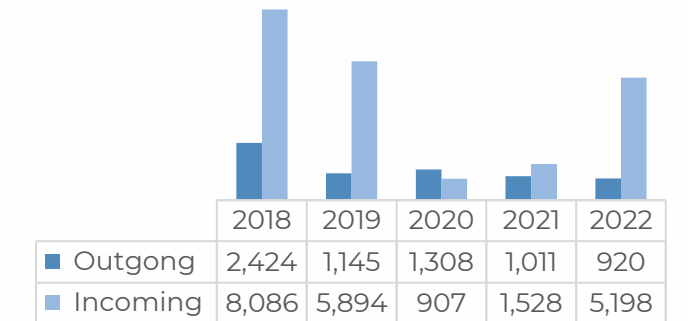
Letter



Parcel

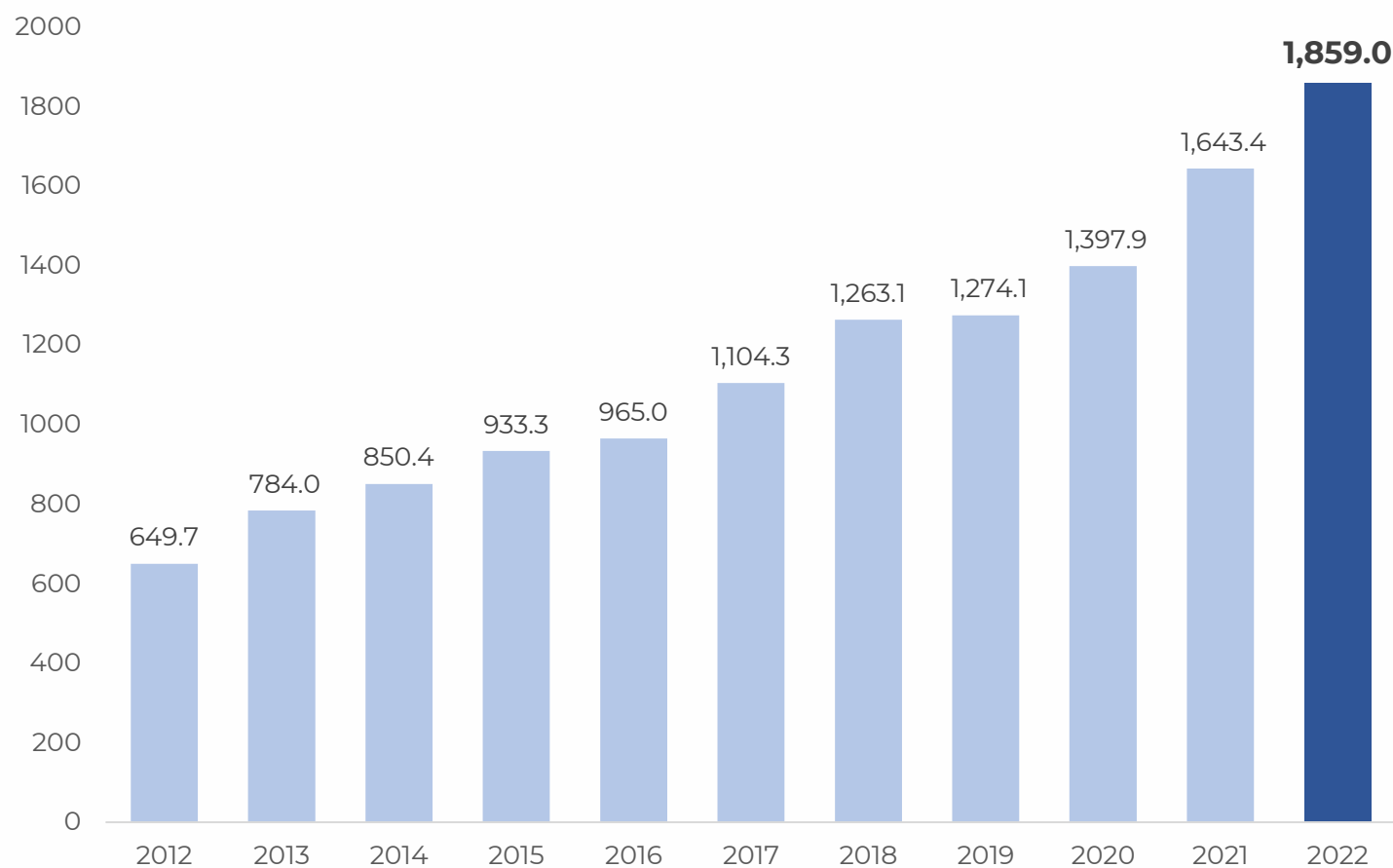


Packet





8. ECONOMIC INDICATORS

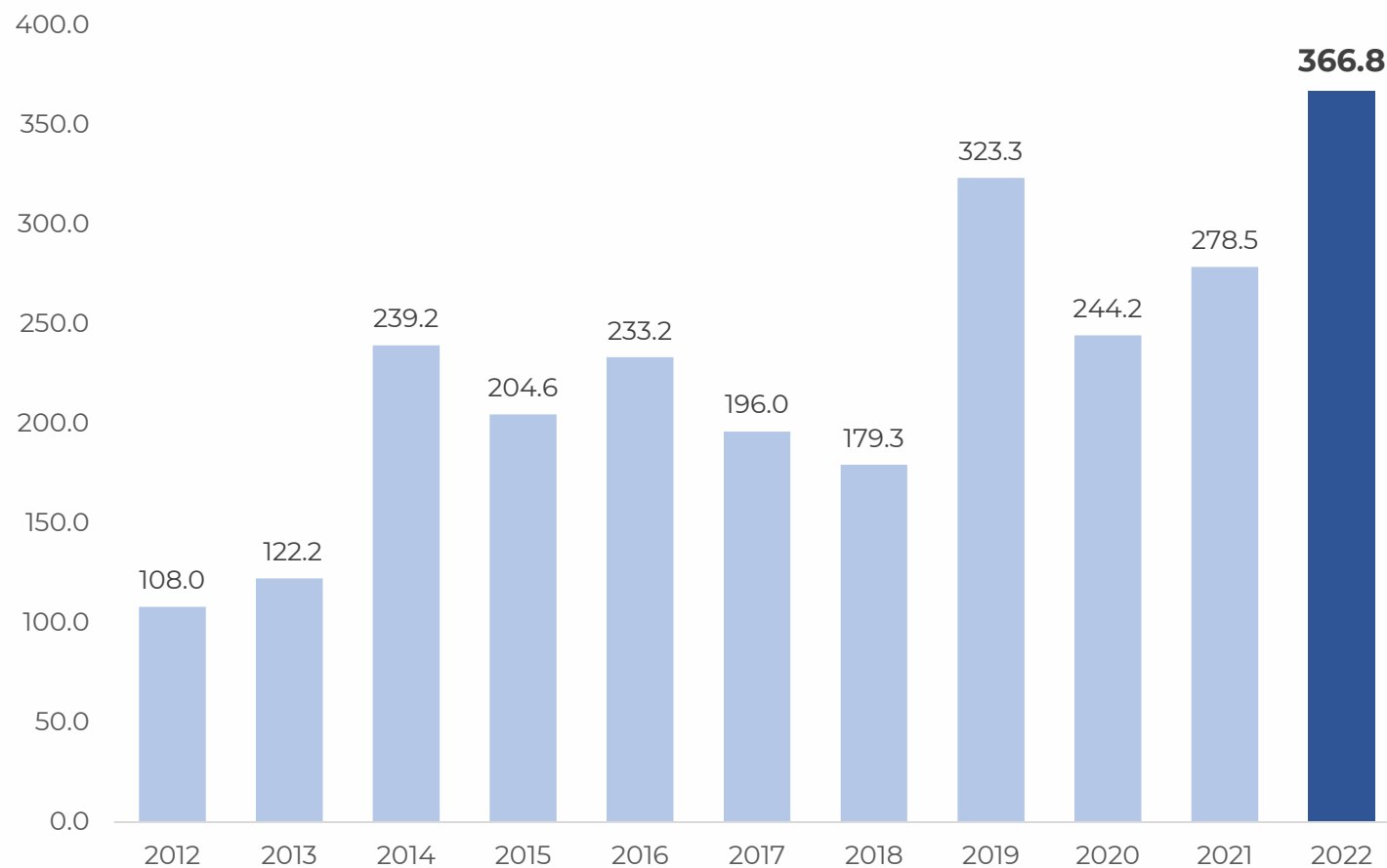


Total revenue (billion tugrik)

Information and communication services 83.29%	Mobile cellular	55.92%
	Fixed Internet	9.27%
	Communications network	6.44%
	Wholesale Internet	4.49%
	Network & Infrastructure Installation	4.45%
	Fixed telephone	1.70%
	Content service	0.44%
	Satellite (VSAT)	0.44%
	International VoIP	0.13%
	Broadcasting service 14.08%	Multichannel TV service
Broadcasting TV		2.97%
Commercial TV		1.18%
Commercial FM		0.18%
Postal 2.63%	Post service	2.63%



8. ECONOMIC INDICATORS

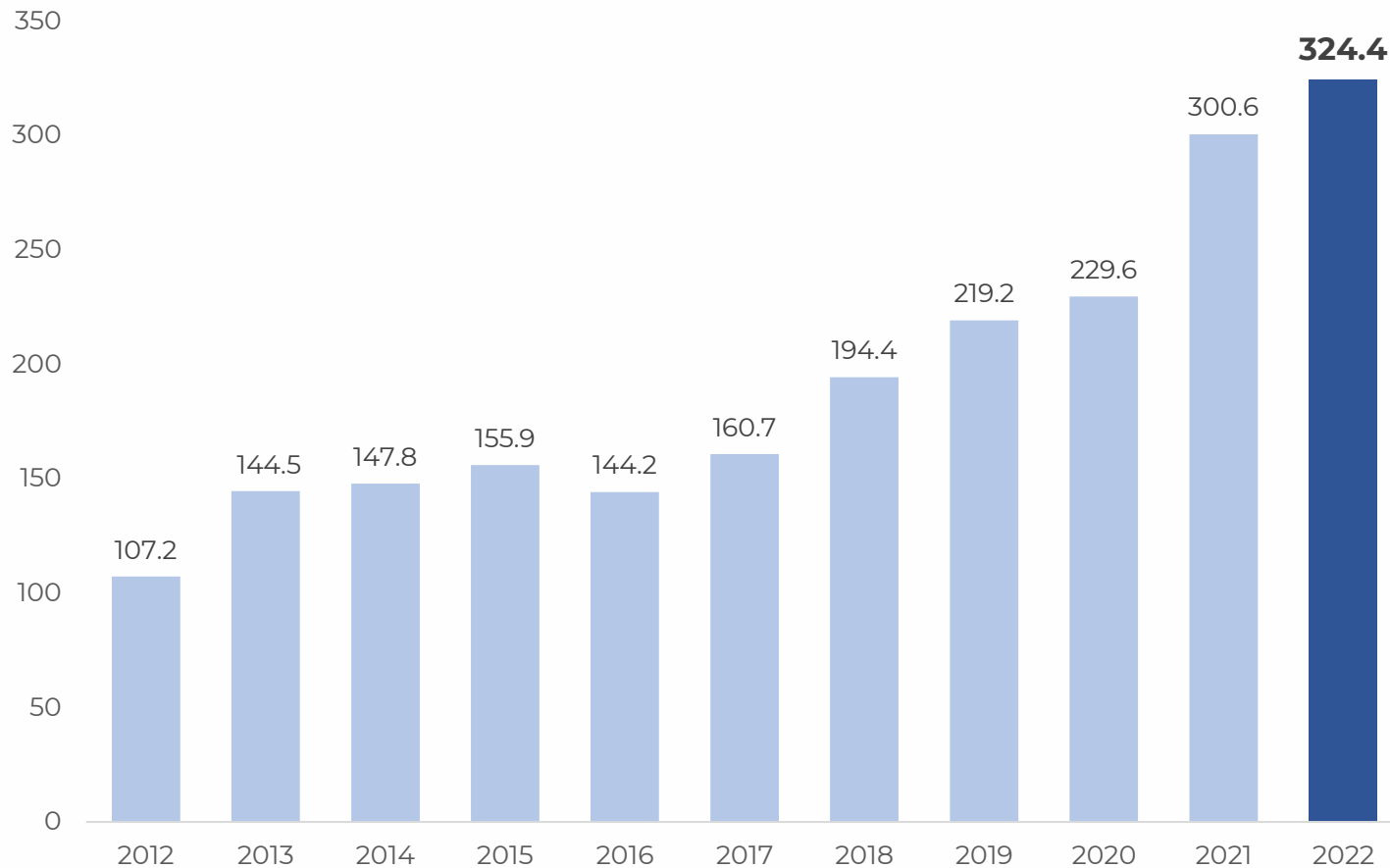


Total investment (billion tugrik)

Information and communication services 84.56%	Mobile cellular	66.41%
	Communications network	11.66%
	Fixed Internet	2.75%
	Network & Infrastructure Installation	1.88%
	Wholesale Internet	1.66%
	Fixed telephone	0.20%
Broadcasting service 12.47%	Multichannel TV service	7.06%
	Broadcasting TV	2.04%
	Commercial TV	3.21%
	Commercial FM	0.16%
Postal 2.97%	Post service	2.97%



8. ECONOMIC INDICATORS



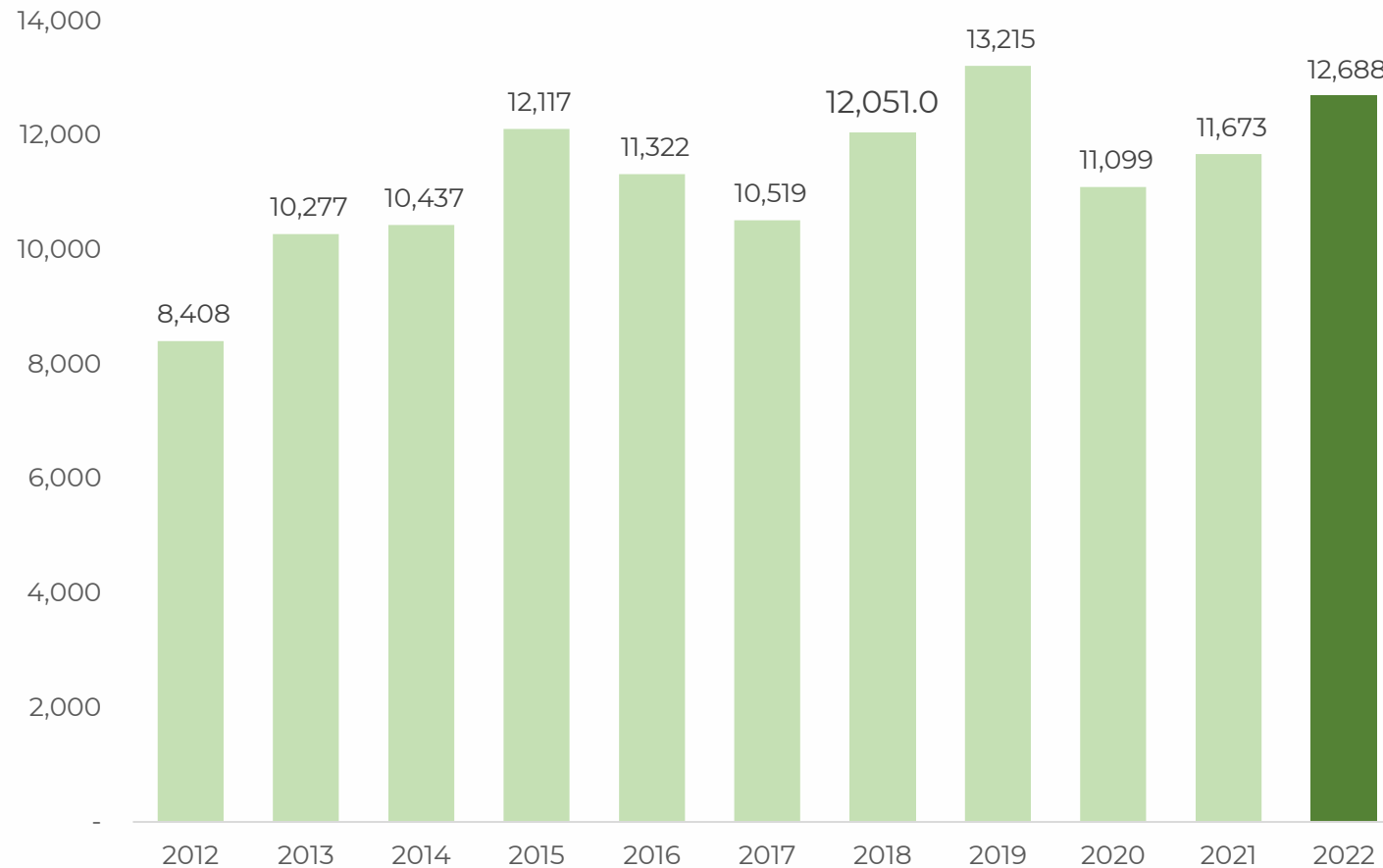
Total found raising to state budget from ICT sector (billion tugrik)

Information and communication services 77.84%	Mobile cellular	58.41%
	Communications network	6.74%
	Fixed Internet	1.43%
	Network & Infrastructure Installation	7.66%
	Wholesale Internet	1.52%
	Content service	1.62%
	Fixed telephone	0.16%
	Satellite service (VSAT)	0.29%
	International VoIP	0.01%
Broadcasting service 17.5%	Multichannel TV service	7.11%
	Broadcasting TV	3.09%
	Commercial TV	1.78%
	Commercial FM	0.18%
Postal 2.06%	Post service	2.06%



9. HUMAN RESOURCE INDICATORS

Persons Employed



Information and communication services 61.95%	Mobile cellular	23.05%
	Communications network	14.54%
	Network & Infrastructure Installation	12.82%
	Fixed telephone	6.36%
	Fixed internet	4.31%
	Wholesale Internet	0.58%
	Satellite service (VSAT)	0.24%
	Content service	0.05%
Broadcasting service 25.39%	Multichannel TV service	10.70%
	Broadcasting TV	8.96%
	Commercial TV	4.64%
	Commercial FM	1.09%
Postal 12.15%	Post service	12.15%



COMMUNICATIONS
REGULATORY COMMISSION
OF MONGOLIA

THANK YOU