

Jelena Ćosić | RIPE NCC Days Sofia | 27 June 2023

It Runs in the Family

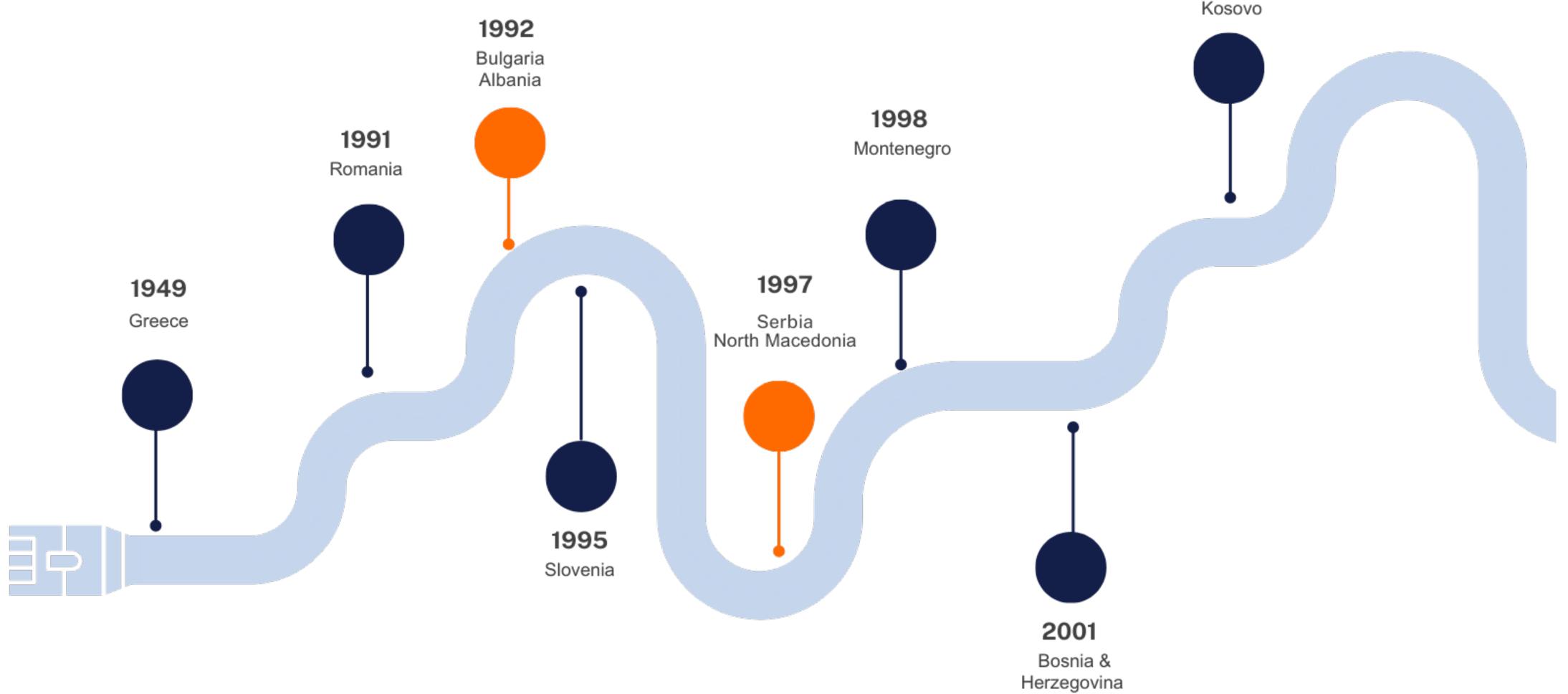
SEE Telco Market Evolution and Trends





A Regional View

Founding of National Telecoms



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2000s: Liberalisation and Privatisation

- EU accession process played a key role
- New players entering the market
- Increased foreign investment
- Strengthening of independent regulatory authorities

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2010s: Market Characteristics and Trends

- Increased competition (MVNOs and OTTs)
- Change in consumer behaviours and preferences (mobile data) as a key driver of growth)
- Growing demand for high-speed Internet
- Changes in regulatory environment (customer focused)

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Market Response

- Restructuring of telecom companies (divestitures like spin-offs) and carved-outs, outsourcing, mergers and acquisitions)
- Convergence and vertical integration
- Expansion of 5G and fibre optic network
- Market consolidation

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Telecom Serbia

HQ: Belgrade, Serbia

Size: 12,000+ employees

Market share across SEE region:

Bosnia and Herzegovina - 26.5% North Macedonia - 0.05% Montenegro - 44% Serbia - 48%

United Group

HQ: Amsterdam, The Netherlands

Size: 14,000+ employees

Market share across SEE region:

Bosnia and Herzegovina - 20% Bulgaria - 33.5% Croatia - 16% Greece - 32% Montenegro - 10.5% Serbia - 21.5% Slovenia - 30.5%

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A1

HQ: Vienna, Austria

Size: 17,000+ employees

Market share across SEE region:

Bulgaria - 22.5% Croatia - 32.5% North Macedonia - 36% Serbia - 9% Slovenia - 20%

Deutsche Telecom

HQ: Bonn, Germany

Size: 207,000+ employees

Market share across SEE region:

Bosnia and Herzegovina - 11% Croatia - 47% Greece - 51.5% Montenegro - 36% North Macedonia - 43% Romania - 4%



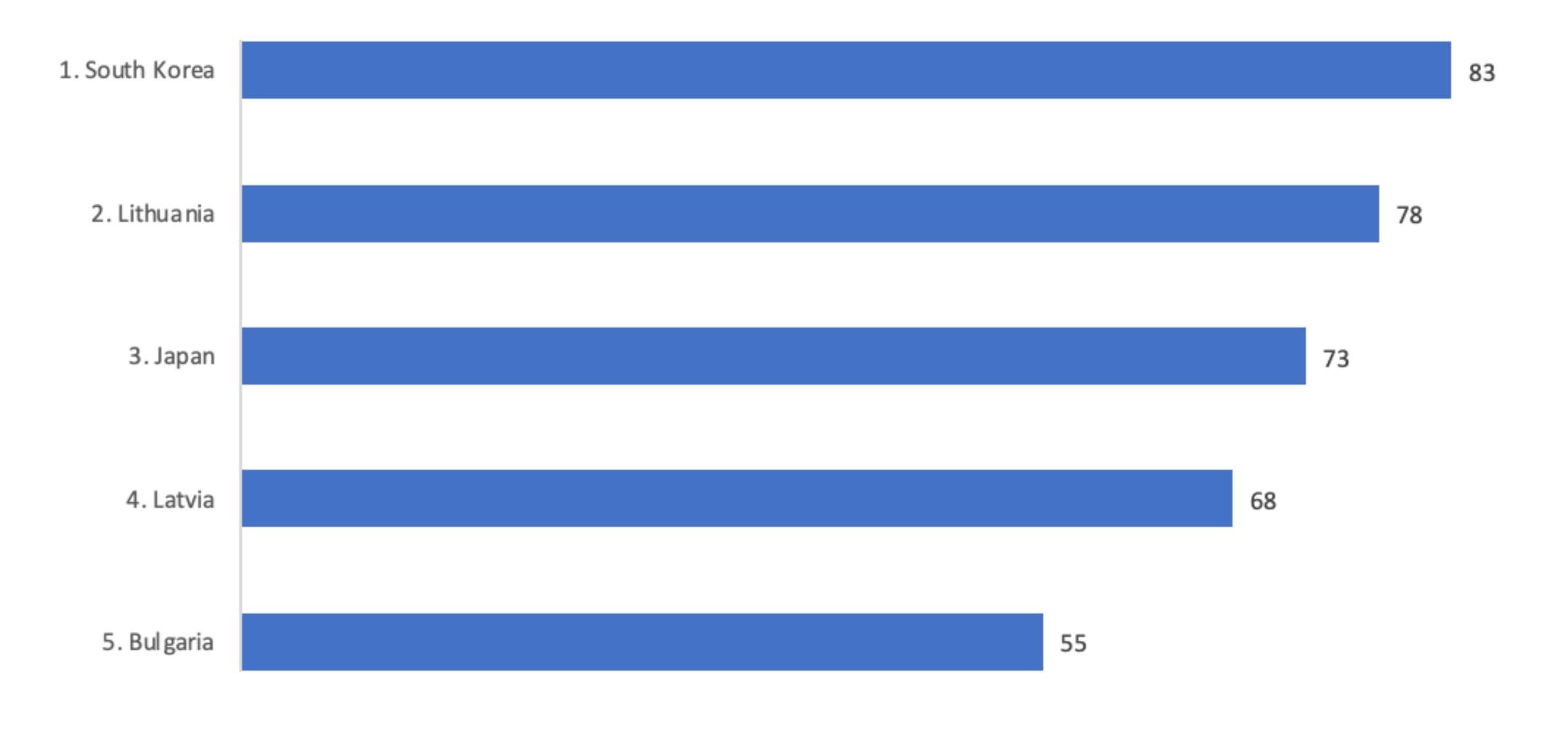


From WiFi to 5G

Examining Telecom Market Dynamics in Bulgaria







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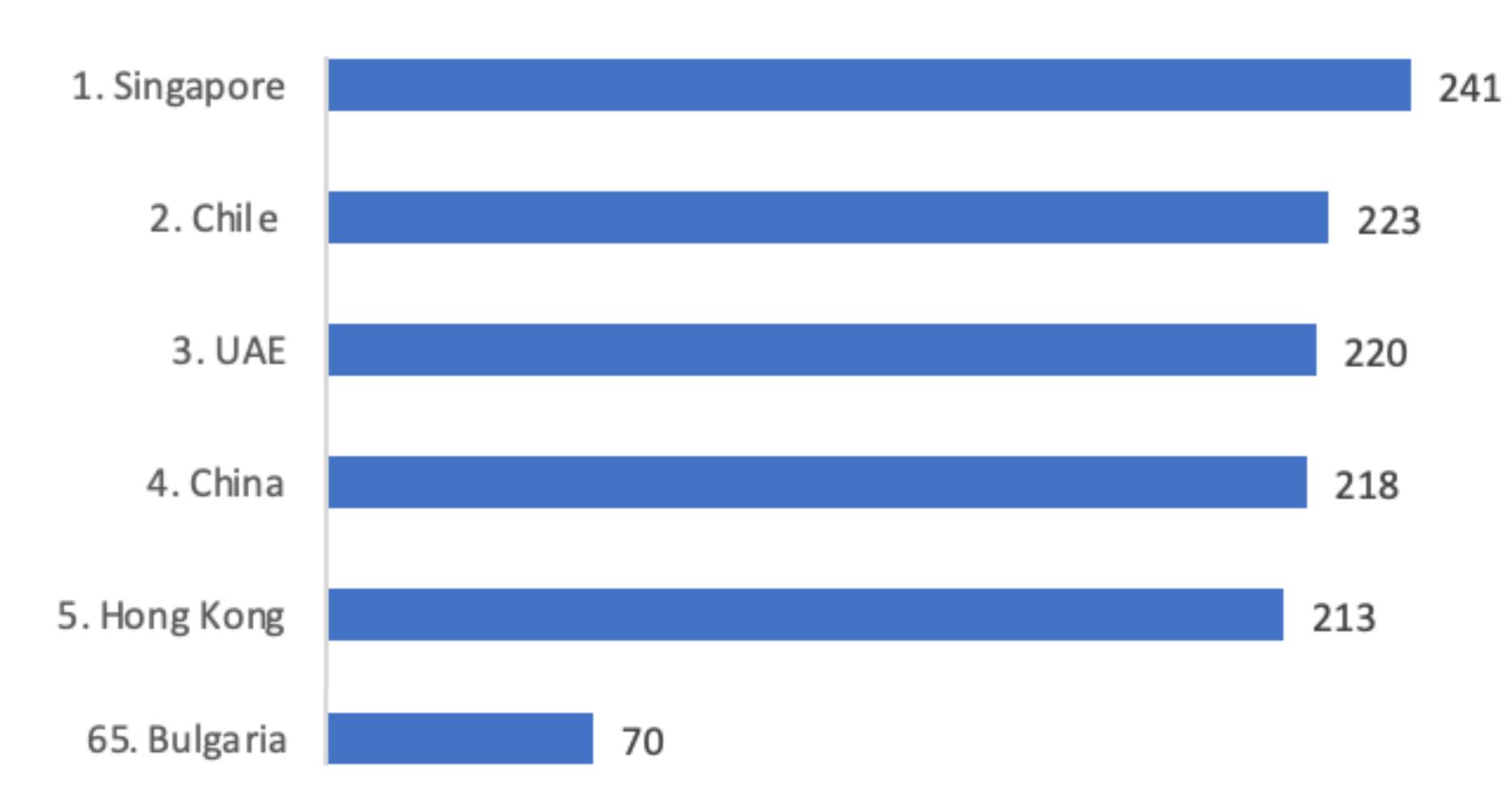


Median Country Speeds in Mbps Source: <u>speedtest.net</u>









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Median Country Speeds in Mbps Source: <u>speedtest.net</u>





Customers

- Shift towards mobile devices
- Changes in Internet usage
- Low demand for ultra high speeds

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Operators

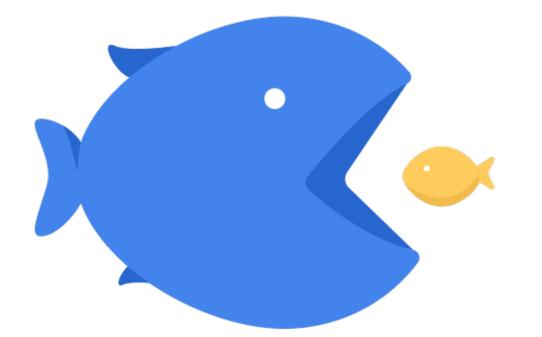


- Diverting to mobile investment:
 - Adapting to customers preferences
 - Revenue opportunities
 - High costs of investment outside of urban areas
- Bundled services
- Market consolidation









Acquisitions boost United Group figures

APRIL 25, 2022 13.02 EUROPE/LONDON BY CHRIS DZIADUL

Bulgarian telco Vivacom acquires local Telnet

09 DECEMBER 2021 SHAILAJA PAL 3156 views

Bulgarian Telecommunications Company completes acquisition of Netl, ComNet Sofia, N3

United Group snaps up two local operators in Bulgaria

16 FEBRUARY 2021 6183 views JAMES BARTON

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SHAILAJA PAI 09 DECEMBER 2021 3156 views

Bulgarian Watchdog Probes Vivacom's Plan To Buy Multiple Rivals

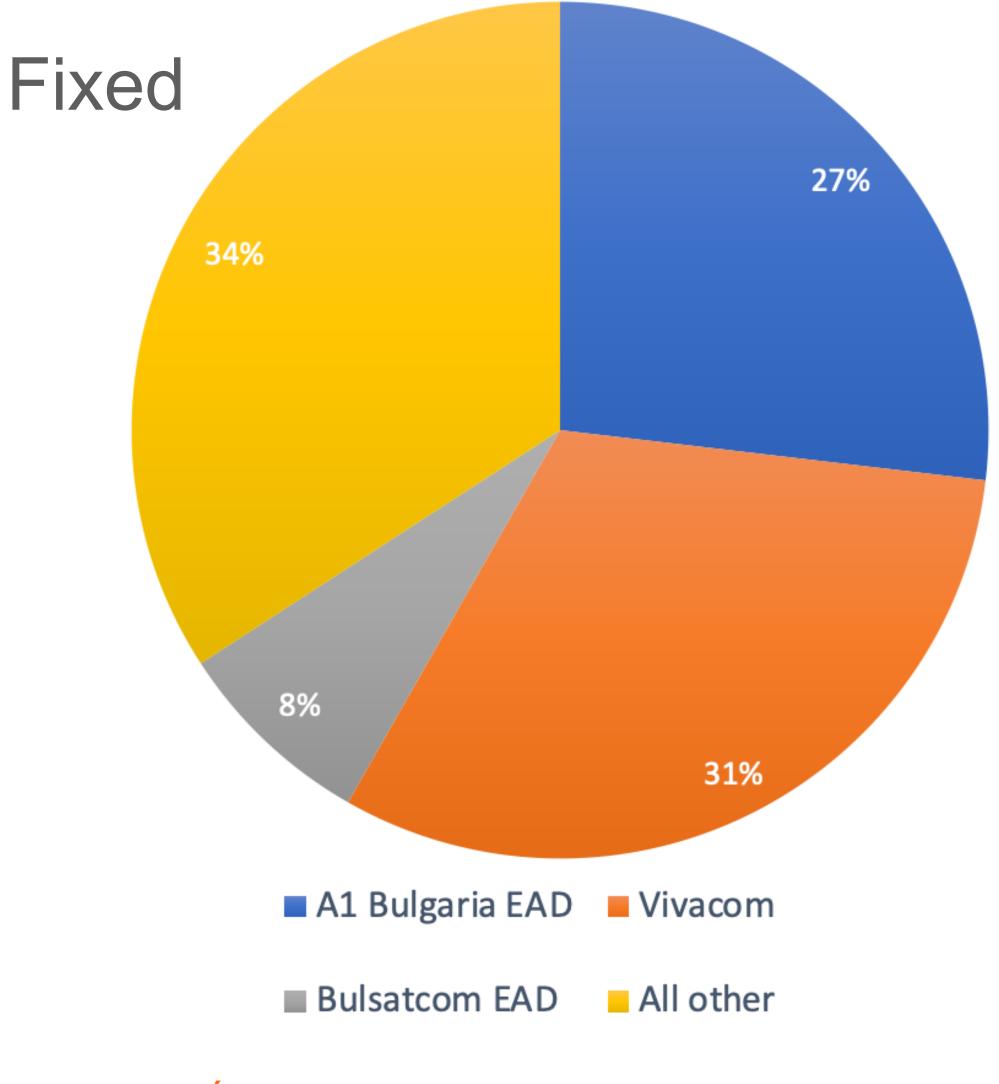
By CPI - February 2, 2023



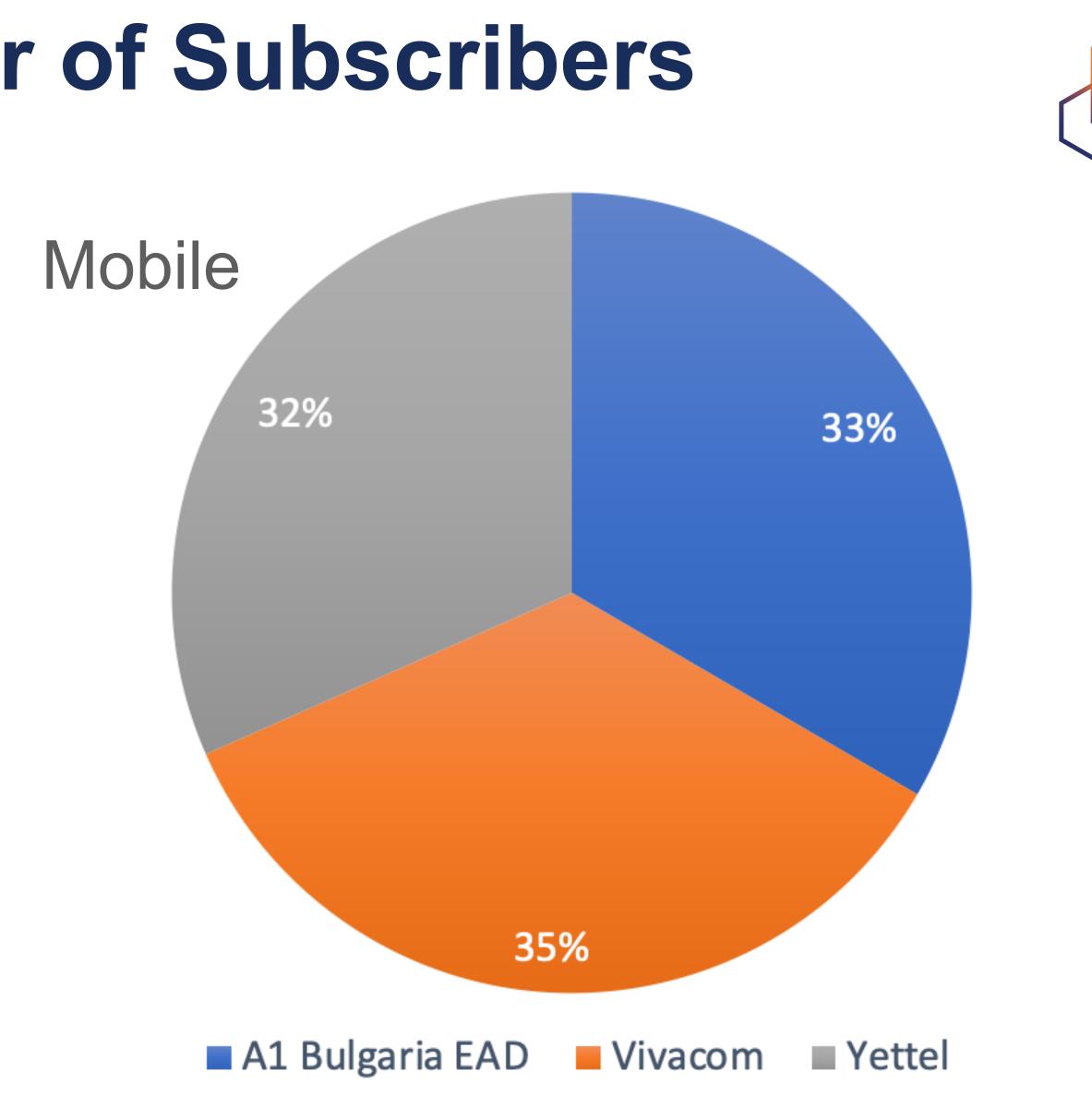




Market Share by Number of Subscribers



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Source: CRC data for 2021 13





5G Frequency Allocation

- Bulgaria secure licences
- Complaint stating unlawfully terminated auction to Bulgarian Supreme Administrative Court (SAC) filed by Mobile Alternative Communications (MAC) in 2023
- MAC seeks to create an alternative mobile operator, proposing opening of current operators networks
- Court rules in MAC's favour, public consultations must be resumed

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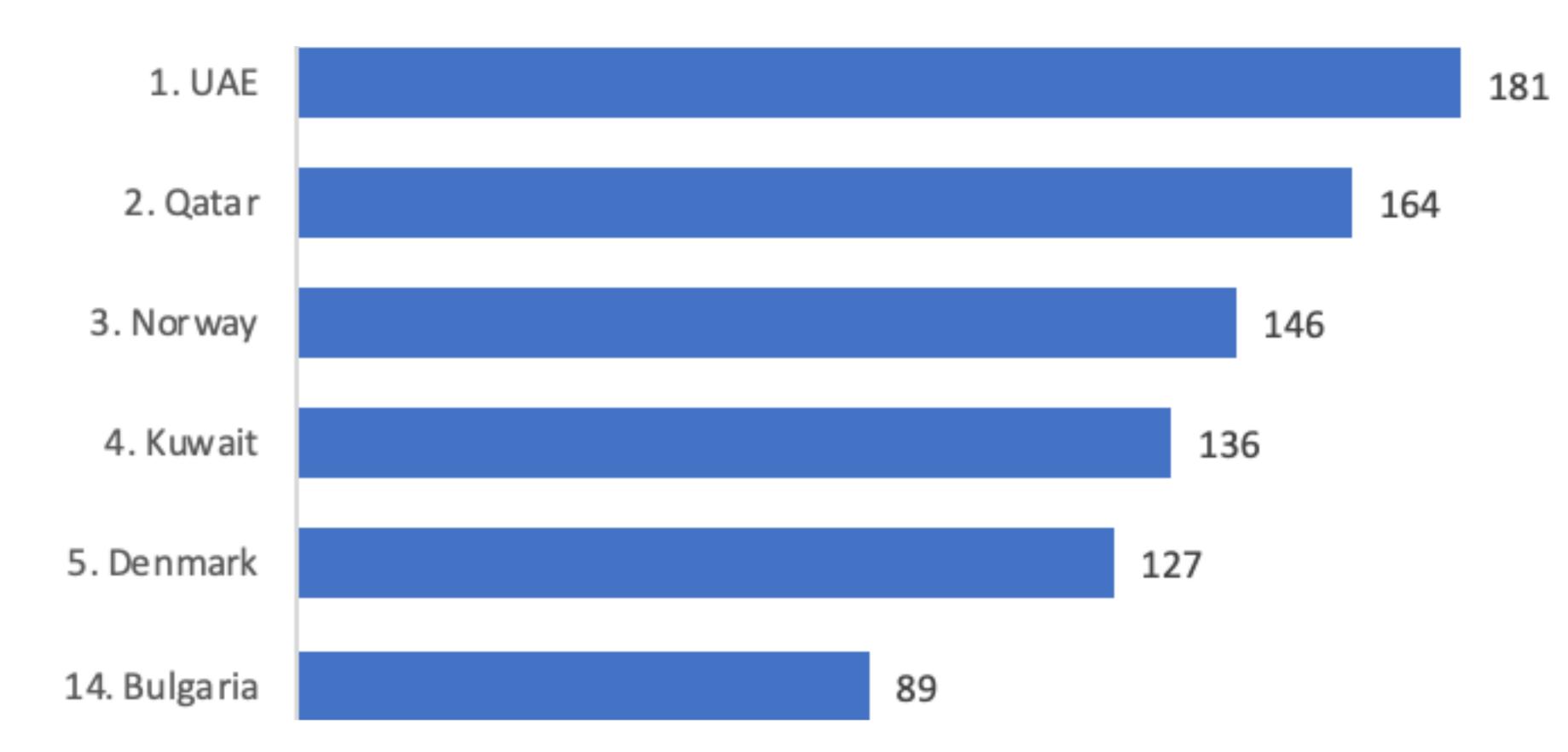




Auction held in 2021: Vivacom, Telenor Bulgaria, and A1



Mobile Access 2023



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Median Country Speeds in Mbps Source: <u>speedtest.net</u>





Telecom Sector - A Natural Monopoly?

Infrastructure Costs

Economies of Scale

Network Effect

• EU "single telecoms market"

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Questions

jcosic@ripe.net





Sources

- APNIC statistics: <u>https://stats.labs.apnic.net/aspop</u>
- United Group: <u>https://united.group/about/</u>
- Telekom Srbija (via wikipedia): <u>https://en.wikipedia.org/wiki/Telekom_Srbija</u>
- https://www.speedtest.net/global-index
- Vivacom (via wikipedia): <u>https://en.wikipedia.org/wiki/Vivacom</u>
- https://crc.bg/en/rubrics/712/annual-report-of-the-communications-regulation-commission-2021
- A1: https://www.a1.group/en/home

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Deutsche Telecom: <u>https://www.telekom.com/en/company/</u> companyprofile/company-profile-625808

