



BB Development in Lithuania: Trends, Challenges, Lessons

Regional Conference „Regulation of Electronic Communications Markets

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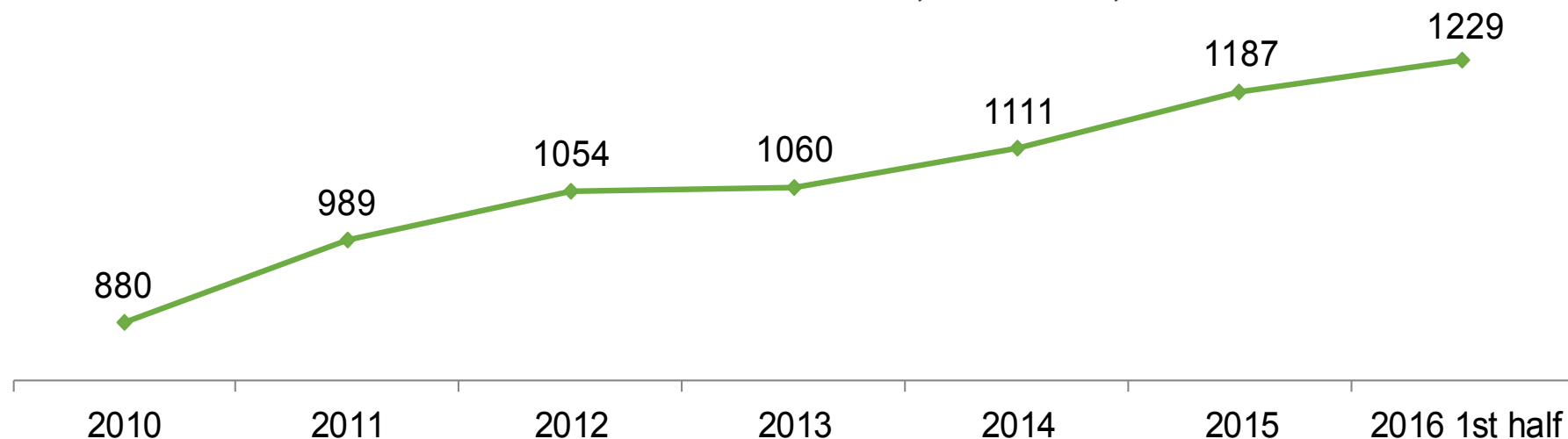
Intro: Market in Lithuania

- Less than 3 million of inhabitants
- No. of e-communications providers 135
- Penetration of mobile telephony 144,8 %
- BB penetration 41,1 %
- 30-100 Mbps – 61 %, above 100 Mbps – 19 %
- Annual growth 3,1 %



Trends: Internet services

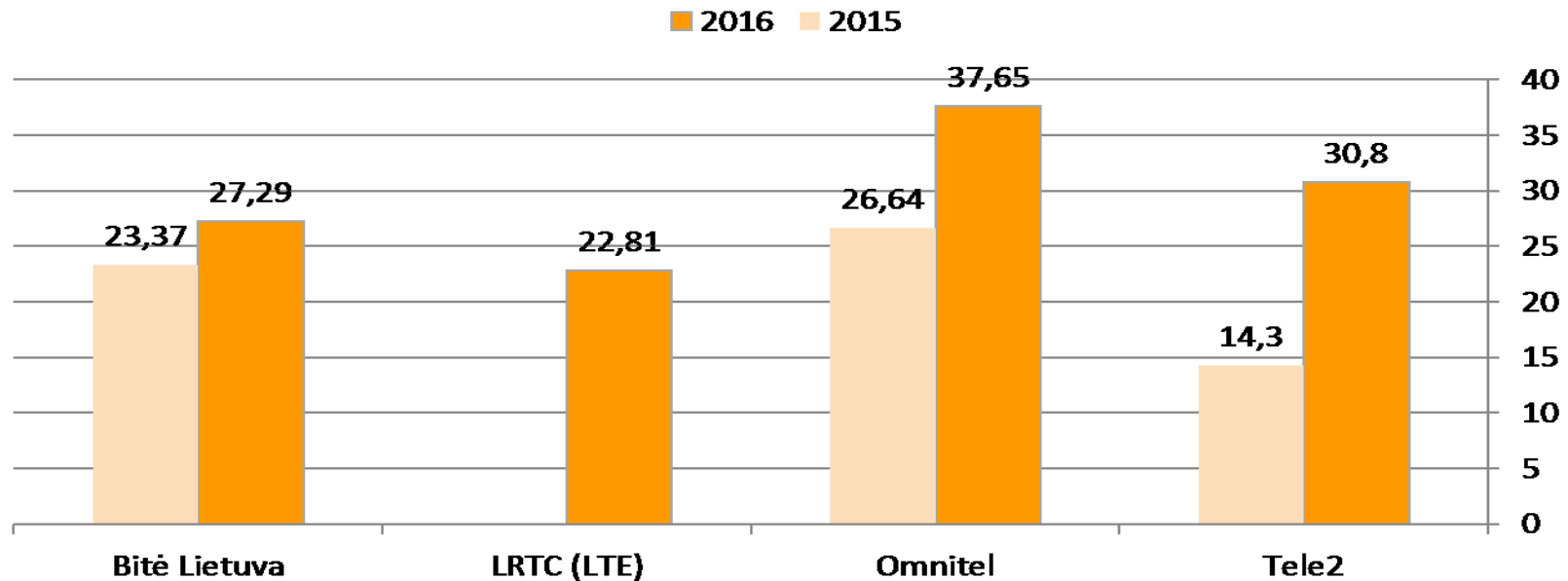
Number of Internet services subscribers, thousands, 2010-2016



- ✓ Number of **broadband internet subscribers increased by +6,9%** in 2015 (to 1.187.000).
- ✓ At the **end of June 2016 ~ 1.230.000 BB subscribers**.
- ✓ **43% of Internet access subscribers** are provided with optical **fibre communication lines**.
- ✓ Number of Internet subscribers using mobile Internet increased by +15% in 2015.
- ✓ **30-100Mbps connection – 6.7 Eur per month (DESI)** (highest price in ES - ~50 Eur)

Trends: wireless Internet access speeds

Average wireless Internet access speeds on 4G/LTE networks Mbps 2015-2016

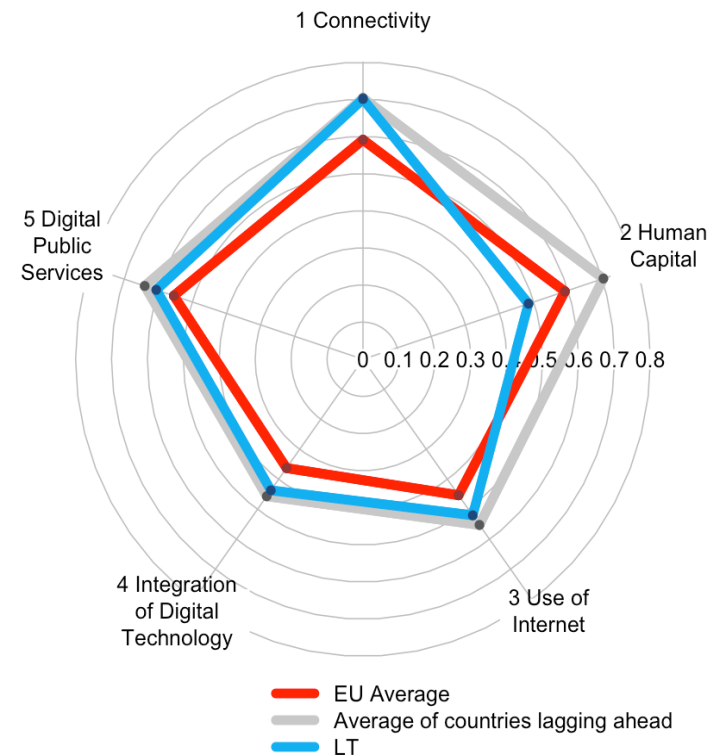


✓ Average speeds 2015 – 21.4 Mbps; Average speeds 2016 – 30.8 Mbps; **Annual increase +44%.**

✓ **5G tested**

Success of the results vs further improvements

- Regulation – timely adoption of legal acts, market analysis, obligations, etc.
- Policy – general ICT and radio frequency auctions, etc...
- Fostering condition for competition
- But not public sector alone...
- Competition, choice for consumer and affordability
- Demand is still low in Lithuania



Ideal situation vs. reality

- Abundance of ICTs – maybe in the future
- Reality – competition drives choice and affordability
- Targeted investment – to have and to use
- At the end of the day customers pay for it all



Present and Future: challenges

It's tough to make predictions especially about the future (Yogi Berra)

Present and Future roughly looks the same:

- To cope with growing number of bottlenecks is a constant struggle
- Bottlenecks: regulatory, political, technological, social, competition/competitive edge
- Awareness of users about the possibilities
- Diversity, consistency and adaptability is the key for the future activities





RRT projects:

- <http://e-infrastruktura.lt/>
- www.raskinterneta.lt
- epaslaugos.rrt.lt/apreptis
- matavimai.rrt.lt
- www.matuok.lt
- www.skaiciuok.lt



Regulatory excellence

How can we prepare ourselves for the future: attitude, regulatory excellence, regulatory culture

Alberta Energy Regulator and Penn University collaboration [paper](#):

- **Utmost Integrity.** It is about the regulator's commitment to serving the public interest, to respecting the law, democracy, working with duly elected representatives.
- **Empathic Engagement.** How responsive regulator is? Transparency and public engagement, listening and also treatment of regulated entities and others concerned.
- **Stellar Competence.** Analysis and outcomes that maximize public value. Instruments and capacities built and actions taken to achieve a high level of performance.

Lessons learned or more problems?

- After a good meal it is difficult to understand the hungry
- It is difficult to replicate best practices
- Rule – One Size Fits All – does not work. A lot of know-how and direct involvement with the problem
- Eastern Partnership project/TAIEX (recipient vs. donor)





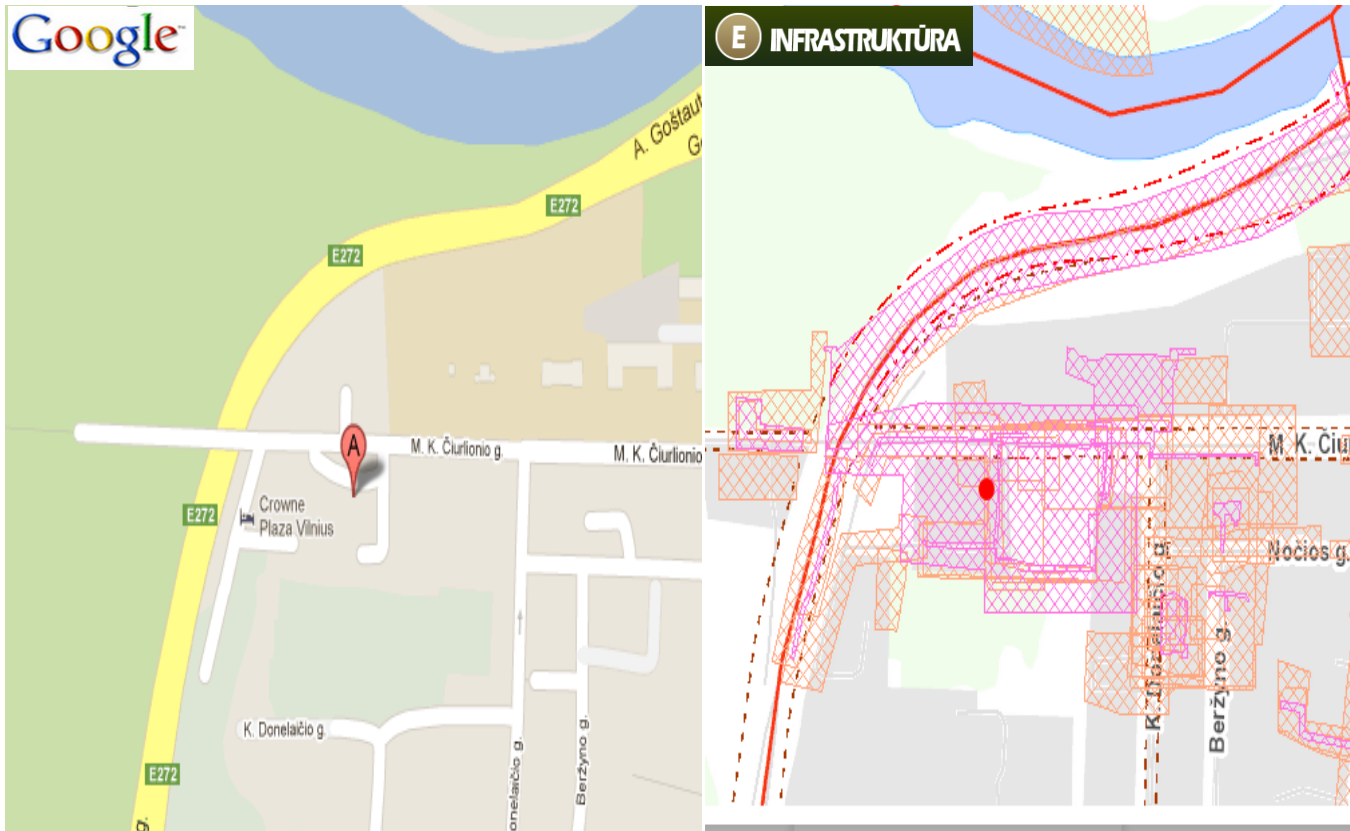
Thank you for your attention!



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<http://e-infrastruktura.lt/> - Infrastructure map – initiative for BB development



Stages:

1. Vilnius
2. Kaunas
3. Klaipeda
4. Panevezys

Project purpose: provide information for operators

- Information about existing electronic communication networks infrastructure in municipality
- Information about prospects of building electronic communication networks

Broadband map – www.raskinterneta.lt



1 S. Žukausko gatvė, Vilnius, Vilniaus apskritis, Lietuvos Respublika

Operatorius	Technologija	Max greitaveika (Mb/ps)
Kavamedia UAB	LAN	1000
UAB „Dokeda“	FTTx	1000
UAB „InIt“	Docsis 3	100

GREITAVEIKA
100 Mb/ps
30 Mb/ps
10 Mb/ps
2 Mb/ps

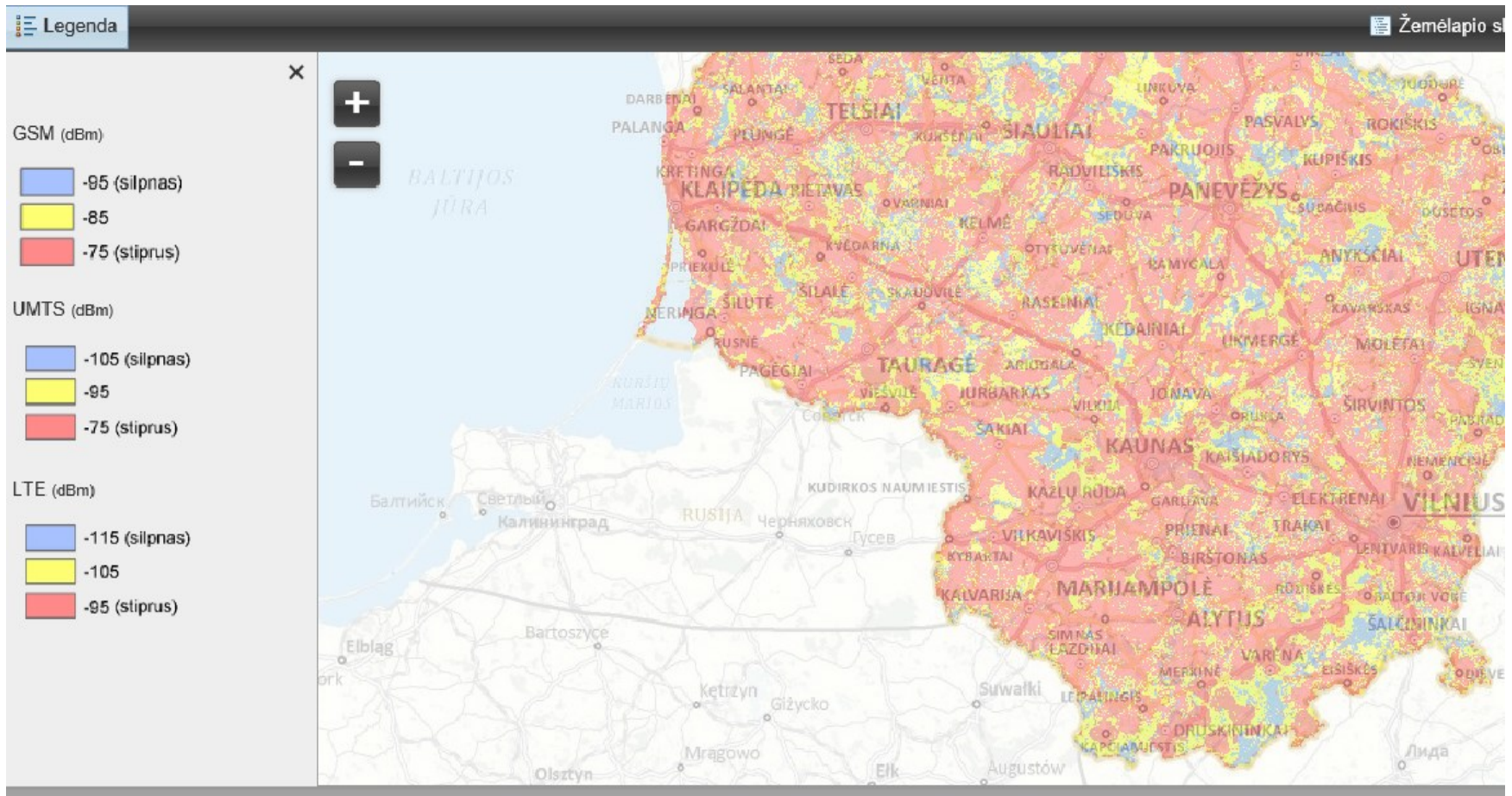
TEKNOLOGIJOS
FIKSUOTOSIOS
JUDRIOSIOS

NAMŲ ŪKIŲ PRIEINAMUMAS : 95% 75%-95% 50%-75% 10%-50% 0%-10%

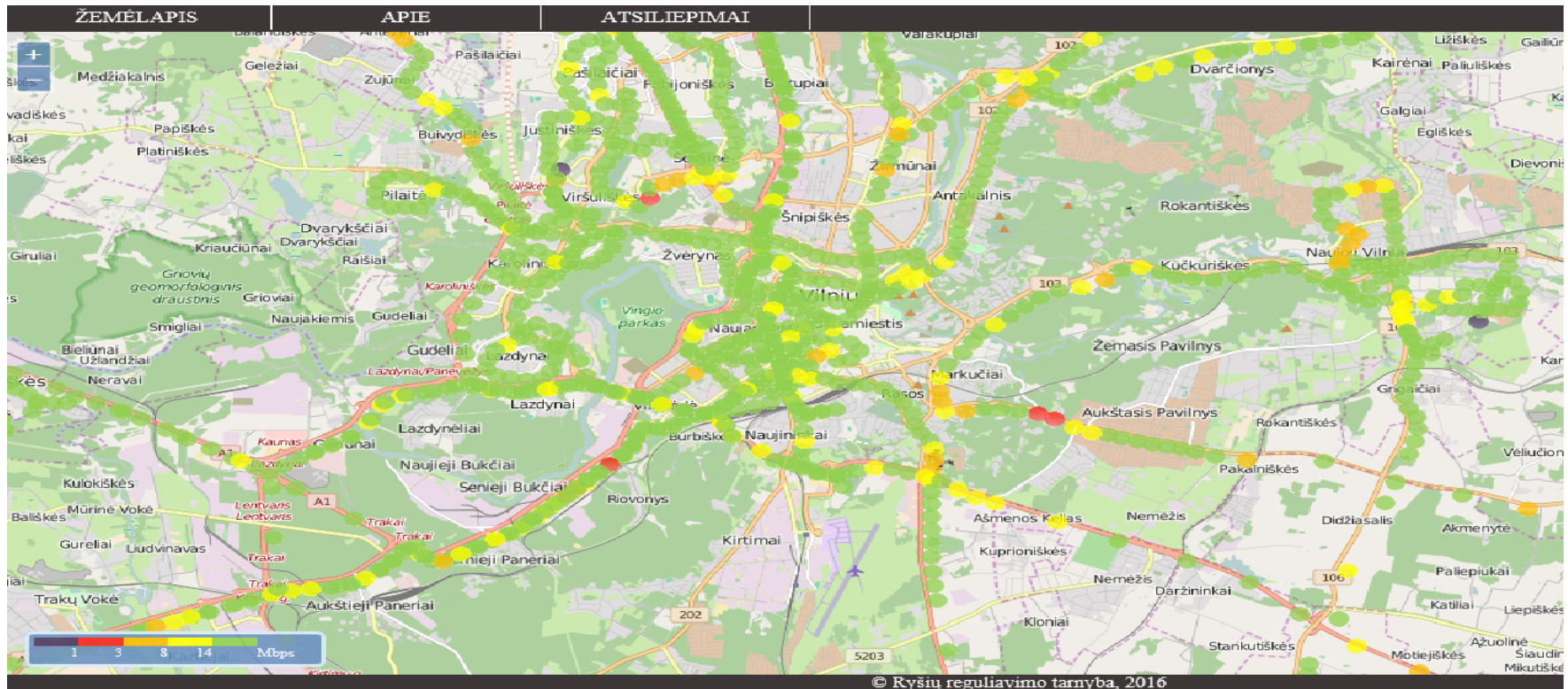


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epaslaugos.rrt.lt/apreptis - coverage map of mobile operators (2G,3G,4G)



matavimai.rrt.lt – measurement system of wireless internet access data transmission



www.matuok.lt – end user's measurement system of provided internet services



MATUOK.LT  [PRADŽIA](#) [ARCHYVAS](#) [APIE SISTEMA](#) [ATSILIEPIMAI](#)



MATUOTI IP: 91.105.75.71
IPT: Orange Home UK [| archyvą](#)

GAVIMAS
 **571** Kbps

SIUNTIMAS
 **0** Kbps

Matuok.lt tinklalapyje galite patikrinti savo interneto prieigos ryšio spartą. Spauskite mygtuką MATUOTI ir gausite Jūsų interneto ryšio duomenų gavimo ir duomenų siuntimo vertes.

Pastaba IE naršyklės naudotojams: jeigu nematote matavimo lango, įjunkite suderinamumo nustatymus (*Tools>Compatibility View*).

MATAVIMŲ REZULTATAI

Interneto paslaugų teikėjas	Gavimas	Siuntimas	Vykdyimo laikas
Vidutinės matavimų vertės			
Orange Home UK	0.35 Mbps	0.1 Mbps	
State Enterprise Infostruktura	213 Mbps	60.22 Mbps	