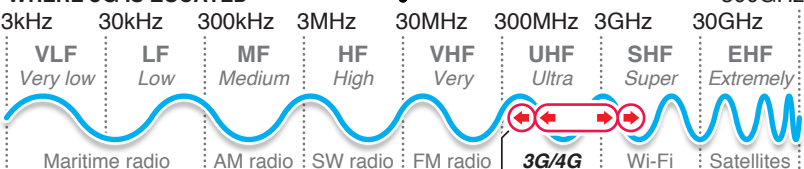


The faster 5G network coming soon

With the first 5G-ready smartphones expected to be released in 2019, mobile phone operators are gearing up to test the new super-fast network

COMPARISON	4G		5G
Latency	10		1 millisecond(s)
Data traffic	7.2		50 exabytes/month*
Available spectrum	3		30 GHz
Connection density	0.1		1 million connections/km ²

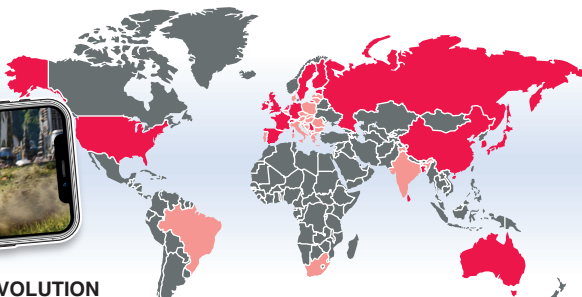
WHERE 5G IS LOCATED



Electromagnetic spectrum: 5G will occupy clutter-free areas around 3G/4G (European allocations shown – Sub 1GHz, 1GHz-6GHz, above 6GHz)

COUNTRIES FIELD TESTING OR RESEARCHING 5G

- Field testing
- Researching



MOBILE NETWORK EVOLUTION

Year	Generation	Maximum data speed†	Data transfer per second†	Time to download full HD movie‡
1979	1G	none (voice only)	n/a	n/a
1991	2G	14.4 Kbps	1.8K	Over a month
2000	2.5G	53.6 Kbps	6.7K	Over a week
2001	3G	384 Kbps	48K	Over a day
2010	4G	100 Mbps	12.5MB	7 minutes
2020	5G	1 Gbps	125MB	40 seconds

*1 exabyte = 1 billion gigabytes †Theoretically possible

‡5GB file size

Sources: Wired, 5G, Qorvo, European Commission

Picture: Marvel

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