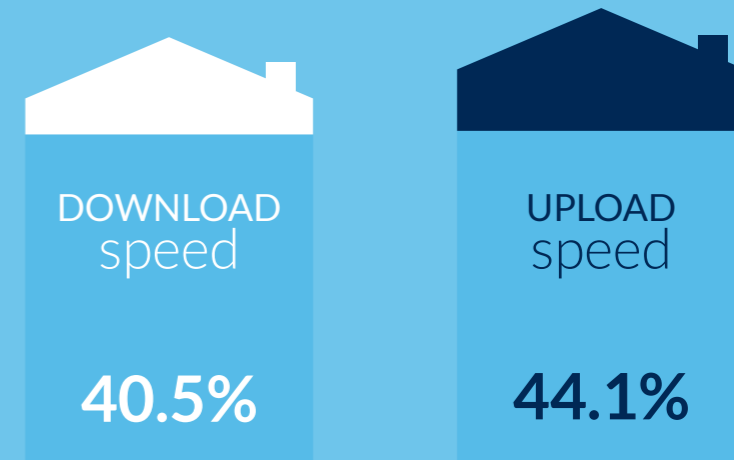


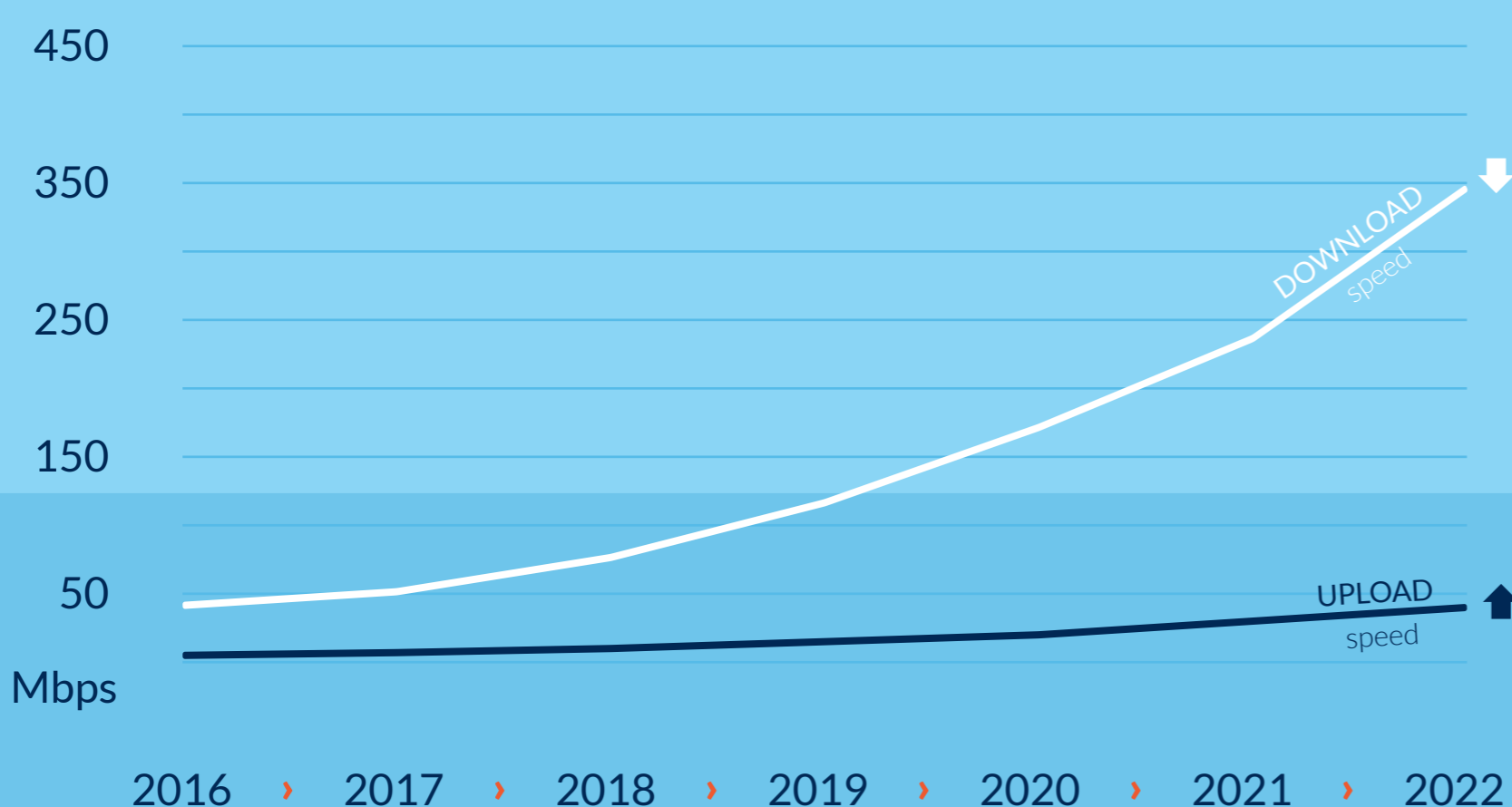
How the speed of residential internet access will develop between now and 2022

Annual internet traffic growth

Between 2016 and 2022 annual growth will amount to **40.5%** for downstream and **44.1%** for upstream traffic volume. The growth of existing services alone is responsible for a CAGR of **36.6%** (upstream) and **31.6%** (downstream) respectively.



Future demand



SPEED FORECAST

by 2022

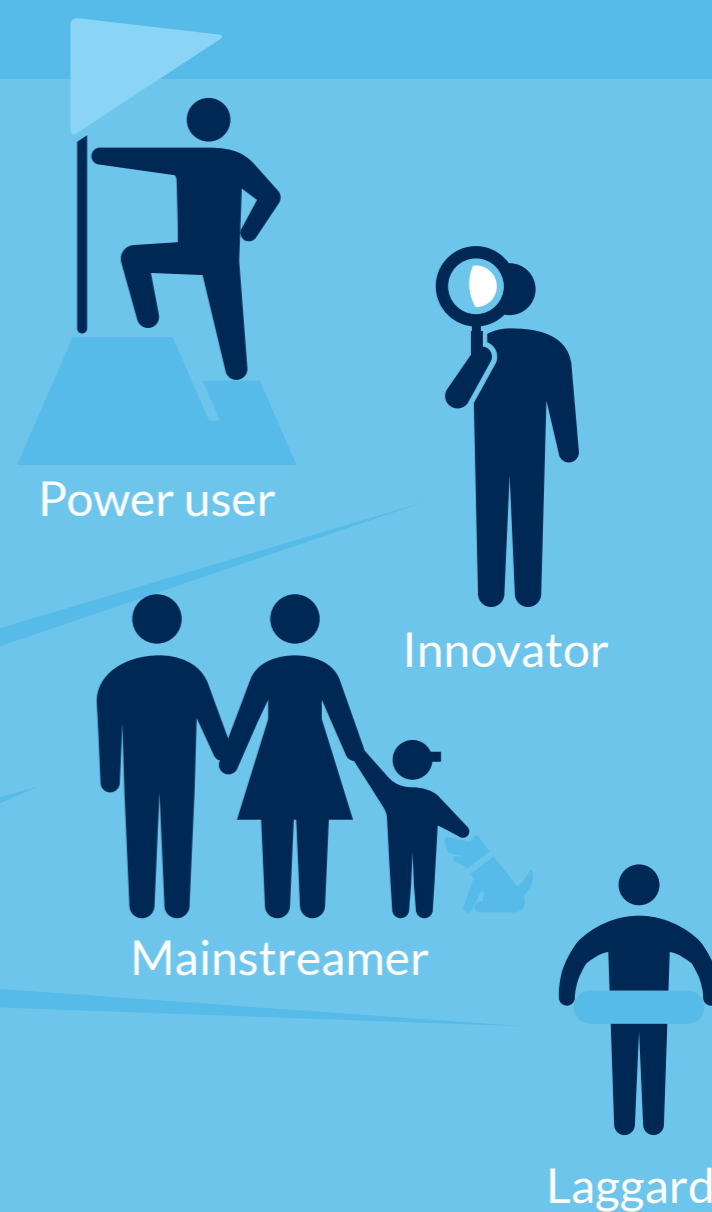
Customers will demand **downstream speed of about 355 Mbps** and an **upstream speed of 37 Mbps** on average.

Cable operators will be able to provide these future broadband needs by rolling out multi gigabit **DOCSIS 3.1**.

Gigabit speeds for power users

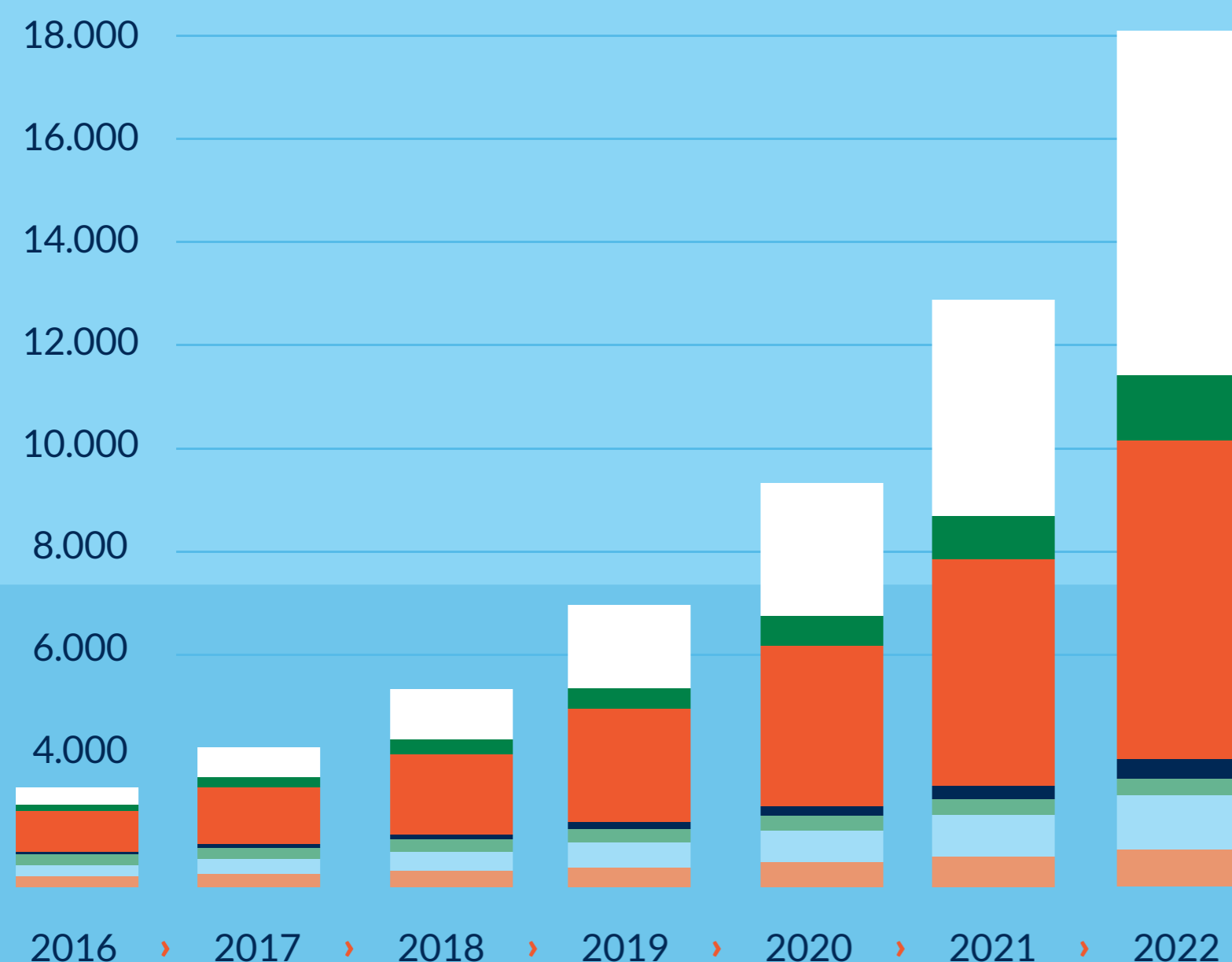
2016 > 2017 > 2018 > 2019 > 2020 > 2021 > 2022

	2016	2017	2018	2019	2020	2021	2022
↓	360	486	656	886	1199	1623	2265
↑	68	96	135	191	269	379	548
↓	111	149	201	271	366	495	693
↑	9	12	17	25	35	49	71
↓	17	22	31	42	57	77	109
↑	1	1	2	2	3	4	6
↓	2	3	4	4	7	9	17
↑	0	0	0	1	1	1	2



Usergroup breakdown, Mbps

Video and new services will drive data consumption



MByte per day

by 2022

- Future services
- Overhead
- Video and music
- social media
- Remote workplace
- Webbrowsing
- Other services

Daily download data

Study
Commissioned by NLkabel and Cable Europe
Report by TU Eindhoven and Dialogic