

The 5G Future Explained

5G isn't just a faster network for your mobile phone; it's the backbone of everything we expect the future to be — smart, automated, and connected.

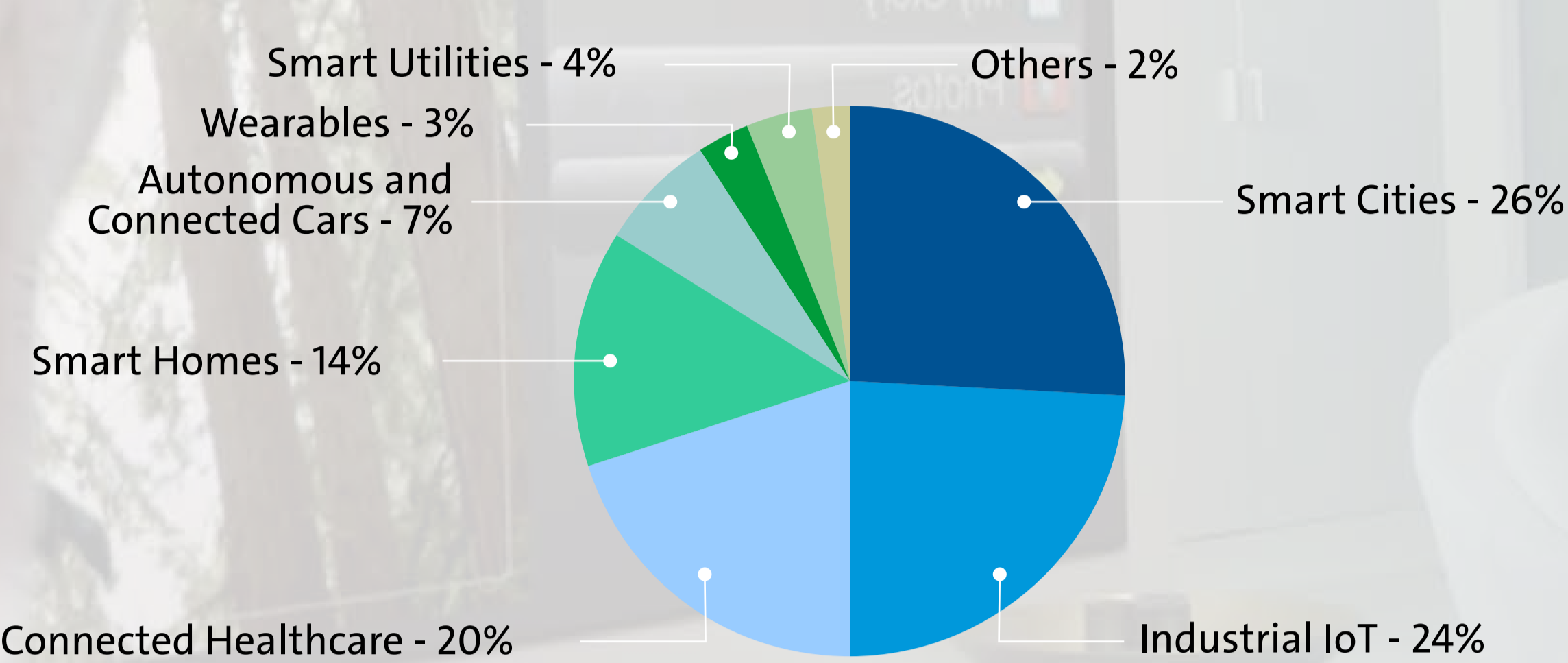
Just some of 5G's key technological milestones will:

- Reduce download times by up to 1000x through increased bandwidth
- Enable 100x more devices to be connected
- Reduce the network's energy consumption by 90 percent
- Decrease latency to less than 10 milliseconds
- Help to enable 100 percent coverage
- Facilitate 10-year battery life on low-power devices

SOURCE: GSMA Intelligence - Understanding 5G <https://www.gsmainelligence.com/research/Title=141208-5g.pdf&download>

With 5G's high bandwidth and low latency, we can build the Internet of Things:

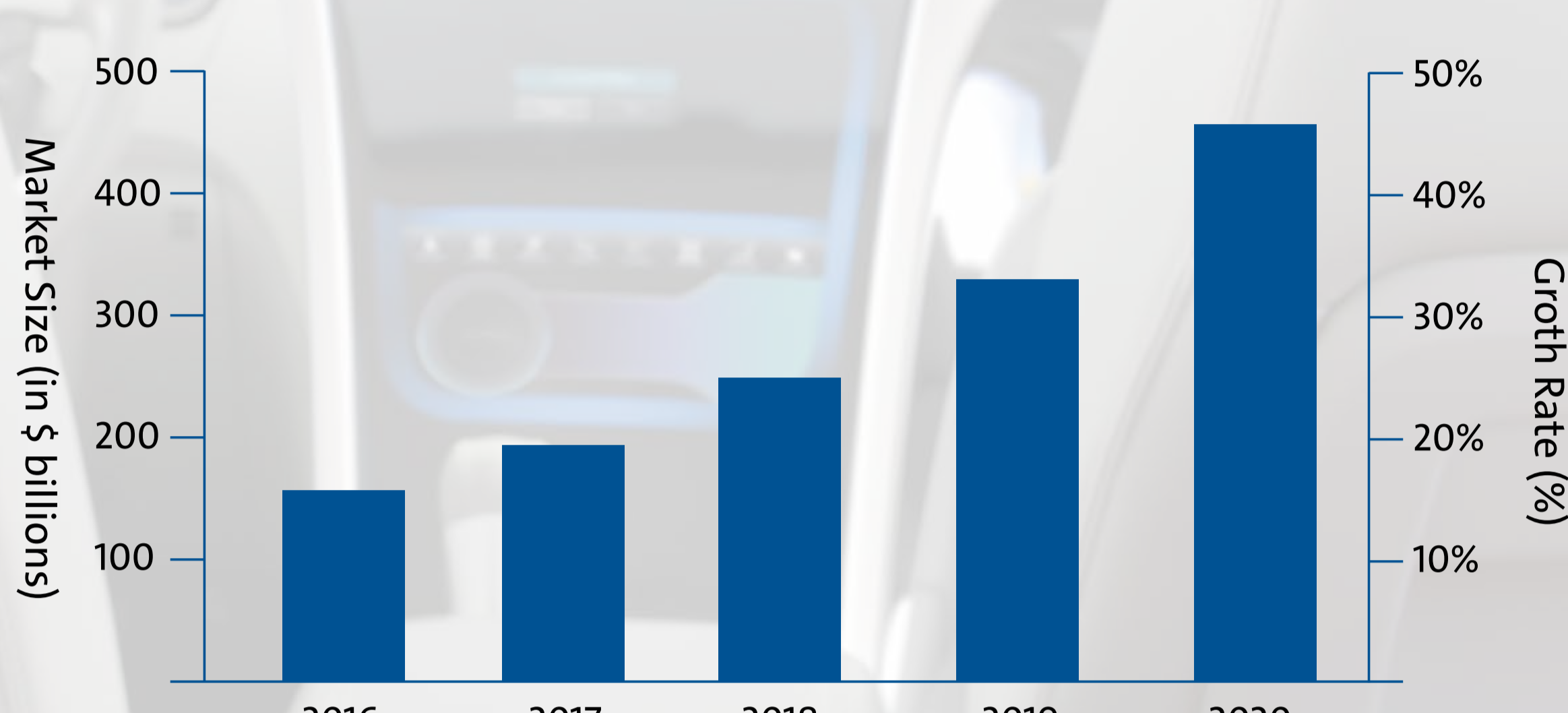
Global Share of IoT Market



SOURCE: GrowthEnabler, Market Pulse Report, Internet of Things (IoT), free PDF, no opt-in, <https://growthenabler.com/flipbook/pdf/IOT%20Report.pdf>

The IoT industry is expected to keep growing and has a brilliant future ahead

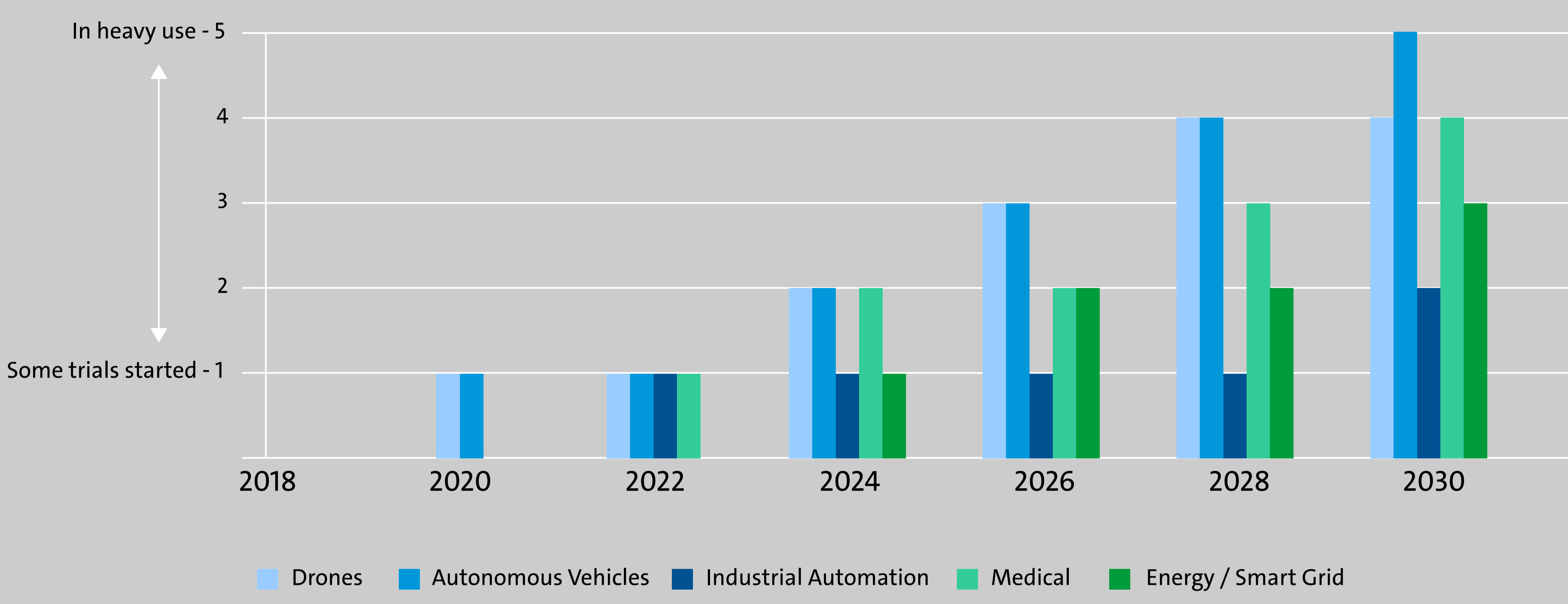
Global IoT Market Size



SOURCE: GrowthEnabler, Market Pulse Report, Internet of Things (IoT), free PDF, no opt-in, <https://growthenabler.com/flipbook/pdf/IOT%20Report.pdf>

5G will be especially important for mission critical services

Important technologies like medical devices or autonomous cars can't face lags or disruptions in connectivity. With low latency and high speeds, these areas will boom:

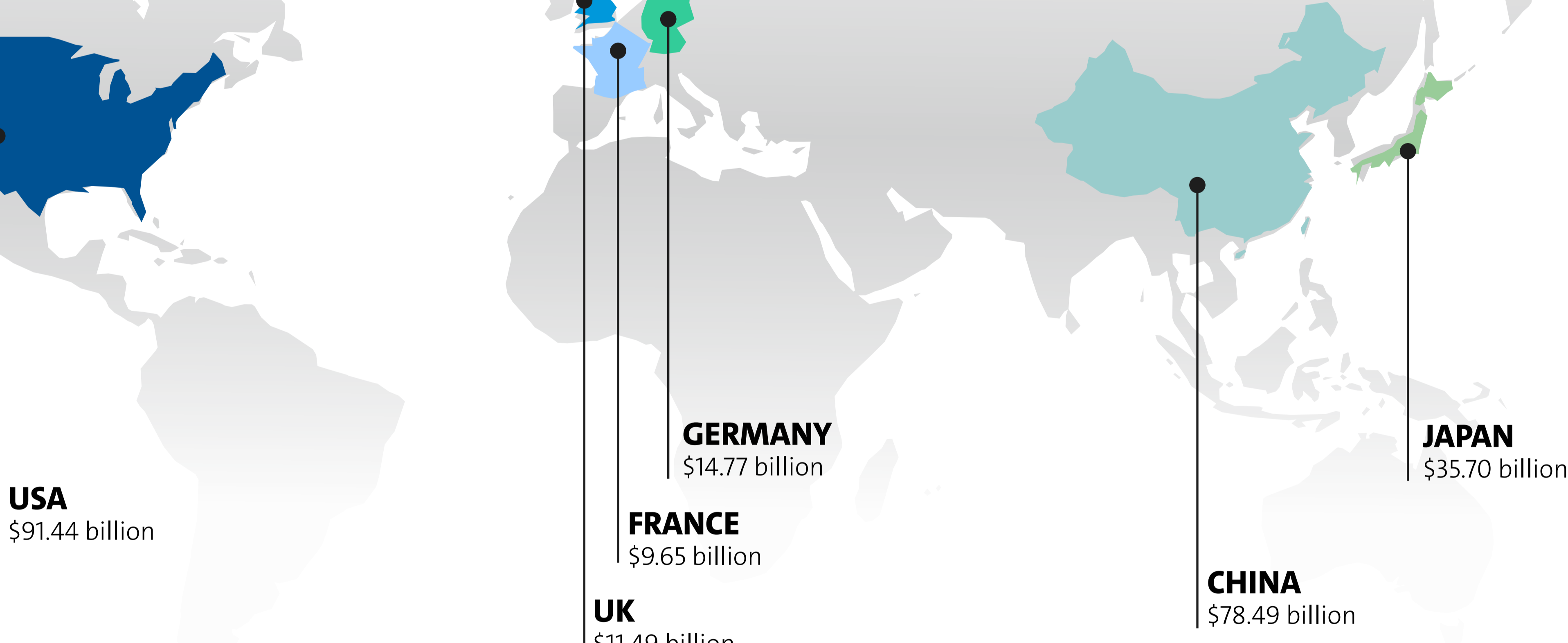


SOURCE: IHS Markit -- 5G Strategies and Opportunities, Oct. 4, 2017, <https://technology.ihs.com/596008/5g-strategies-opportunities-report-2017>

5G investment will peak within five years

Mainstream deployments of 5G are expected by 2023, and the telecoms industry is investing across the globe in the race to offer 5G speeds and reliability. By 2022, investment among the below countries alone is expected to peak at more than \$240 billion.

Expected investment breakdown for selected countries in 2022



SOURCE: IHS Markit -- 5G Strategies and Opportunities, Oct. 4, 2017, <https://technology.ihs.com/596008/5g-strategies-opportunities-report-2017>

Preparing for 5G with optical fiber

5G needs fiber, because it can truly backhaul the amount of data 5G will generate. A single, optical fiber link can transfer 20 Tb per second!

That's why fiber demand continues to rise across the globe and how Corning has already delivered more than **1 BILLION KILOMETERS** of fiber to date.

Will 5G make existing networks obsolete?

Mobile and fixed networks are only wireless at the edge. Fiber will still be the best solution for backhauling the information from both fixed and mobile networks.



5G will not replace the current optical fiber infrastructure; it will evolve over it.



Whether you go fixed or mobile, more than ever, the future is optical fiber.