



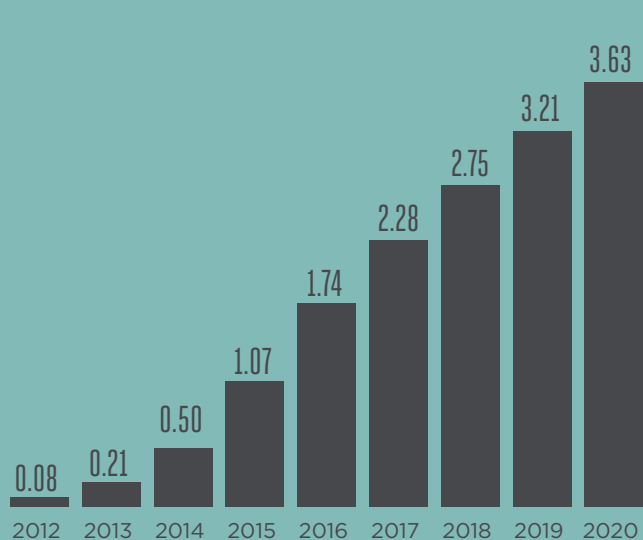
# GLOBAL 4G-LTE FORECASTS: 2012-2020



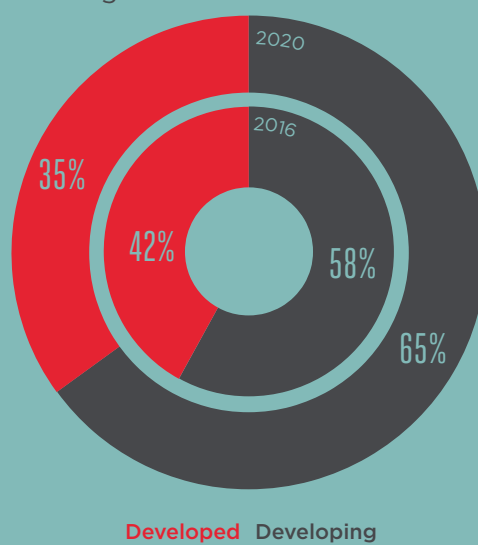
580 operators have commercially launched 4G-LTE networks across 188 countries worldwide as of the end of December 2016. We expect the number of 4G operators to increase by a third by 2020.

## More than 3.6 billion 4G-LTE connections (excluding M2M) expected worldwide by 2020

Global 4G-LTE connections, in billions (excluding M2M)



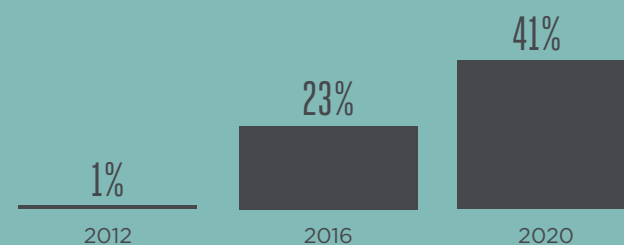
Developing and developed markets: share of global LTE connections



% of global total connections (excluding M2M)

>40%

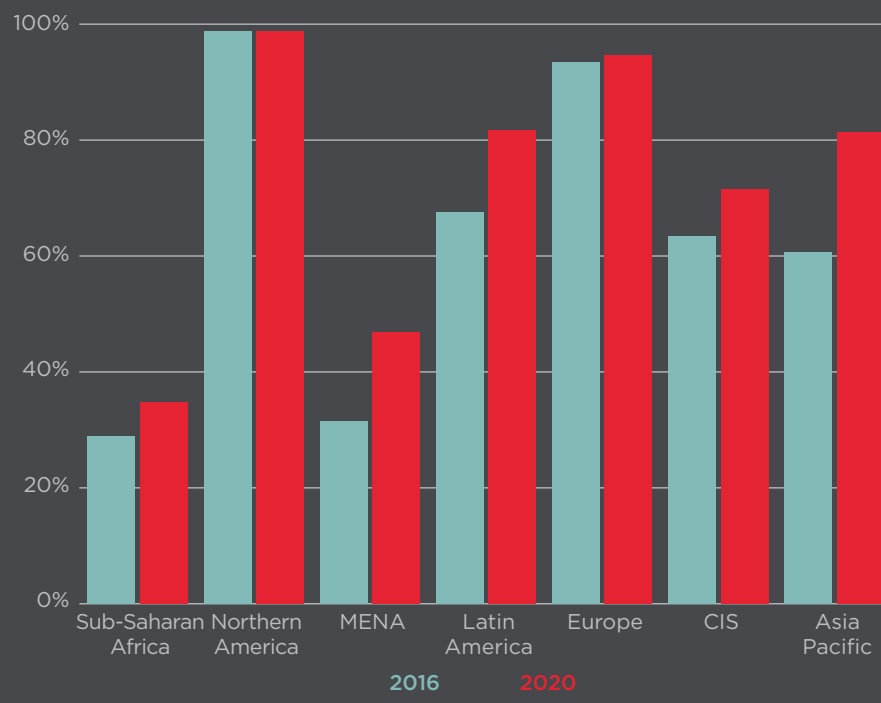
of global connections will run on 4G-LTE networks by 2020, from 23% in Q4 2016



## LTE network population coverage

75%

of the world's population will be covered by 4G-LTE networks by 2020



174

operators now offer LTE Advanced in 91 countries

17

operators offer LTE Advanced Pro in 14 countries