The 5th generation mobile network enables ultra-fast, very low-latency connectivity to billions of devices, the Internet of Things (IoT) and a fully connected world.

What 5G is and how it works

5G networks are designed to minimise power, resulting in optimised electromagnetic field (EMF) levels. They also have equipment that manages to transmit the same information with much less power, using increased equipment capabilities to monitor and control the levels of the electromagnetic fields. These functionalities are included in the safety guidelines of the ICNIRP.

In addition, massive MIMO antennas allow power to be directed only in the required direction, minimising the power transmitted to other directions, which will lead to lower exposure levels than current technologies (2G, 3G and 4G).

5G uses the 700 MHz and 3.5 GHz frequencies. Progressively, the current mobile bands (2G, 3G and 4G) will be migrated to 5G and the deployments will be completed with the “millimetre” band, this is 26 and 28 GHz bands.

Frequencies:

5G Equipment (or devices): with more modern and efficient equipment, these transmit the same information with a much lower power.

In addition, automatic control functionalities help minimise interference, extend battery life, and limit user exposure to electromagnetic fields.

Decades of research have shown that there is no scientific evidence linking exposure below the ICNIRP limits to risks to humans, animals, or plants. Strict compliance: Telefónica complies with the ICNIRP international guidelines in all countries.

Safe devices: the devices are and will be assessed to ensure that they comply with exposure limits of all regulations.