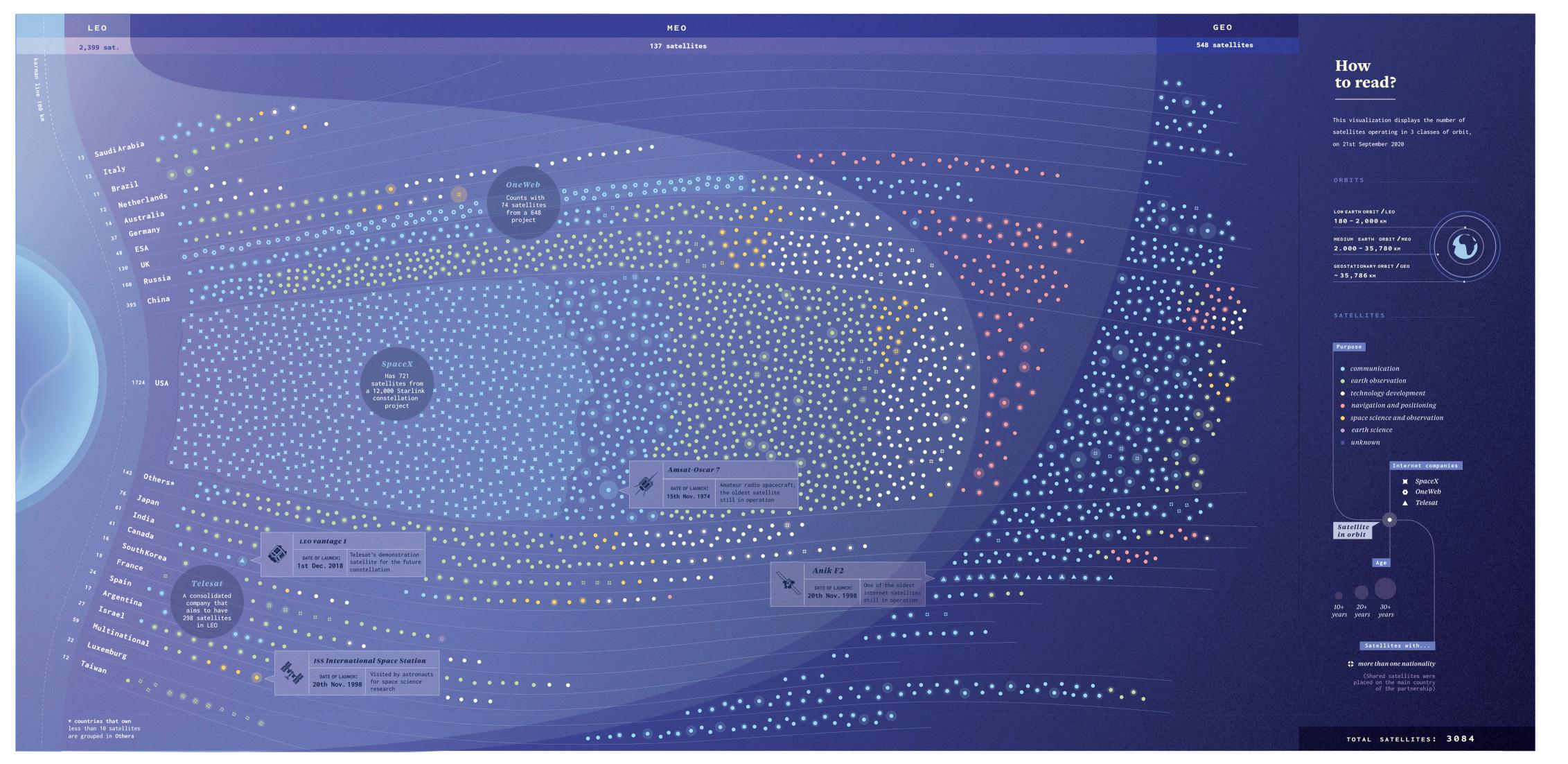
# **HOW ARE SATELLITES ORBITING EARTH AND WHAT'S THEIR PURPOSE?**



# **ABOUT THE VISUALIZATION**

Usually slower and unreliable, internet satellite is mainly used in isolated areas, where cables can't reach, but this scenario is about to change, with companies such as SpaceX, Telesat, and OneWeb building fleets in Low Earth Orbit (LEO), way closer to Earth than traditional satellites (in Geostationary Orbit, or GEO). In the visualization,

these emerging constellations are highlighted among the communications satellites. The three companies promise to offer a faster, more stable, real-time satellite connection and could compete with land-based options, by also getting a constant connection even to airplanes and to the open sea. This representation of three Earth's orbits

was created based on datasets of UCS (Union of Concerned Scientists) and Jonathan's Space Report. However, there is also a fourth orbit, the elliptical. Since the 57 satellites in this class can come as close as 1,000 km to Earth and farther than 35,786 km away, crossing all the other three, they were not represented.

## **PROJECT BY GROUP 8**



ANDRÉ CALDEROLLI / PRISCILA YOSHIHARA / FERNANDA DE ALBA / JOHANNES LONGARDT / YUNRUI ZHU / MARIA PAULA VARGAS / FATEMAH GOODARZI





### FACULTY

MICHELE MAURI / ANGELES BRIONES / GABRIELE COLOMBO / SIMONE VANTINI / SALVATORE ZINGALE

### **TEACHING ASSISTANTS**

ANTONELLA AUTUORI / ANDREA BENEDETTI / MATTEO BETTINI / TOMMASO ELLI / ANDREA FEBRES / BEATRICE GOBBO