## WORLDWATCH CARTOGRAM

## e travellers

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an's exploration of outer space has, for most of human history, been confined to observations from Earth's surface. It was only in the second half of the 20th century that technological capabilities were advanced enough to breach the boundaries of our

planet. The first rockets to reach space around the middle of the century were quickly followed by the first humans, although only after fruit flies (in 1947) and the famous dog Laika (in 1957).

Ever since Russian cosmonaut Yuri Gagarin became the first human to enter space in 1961, more than 500 astronauts have travelled there. In almost 60 years of human space exploration, people from almost 40

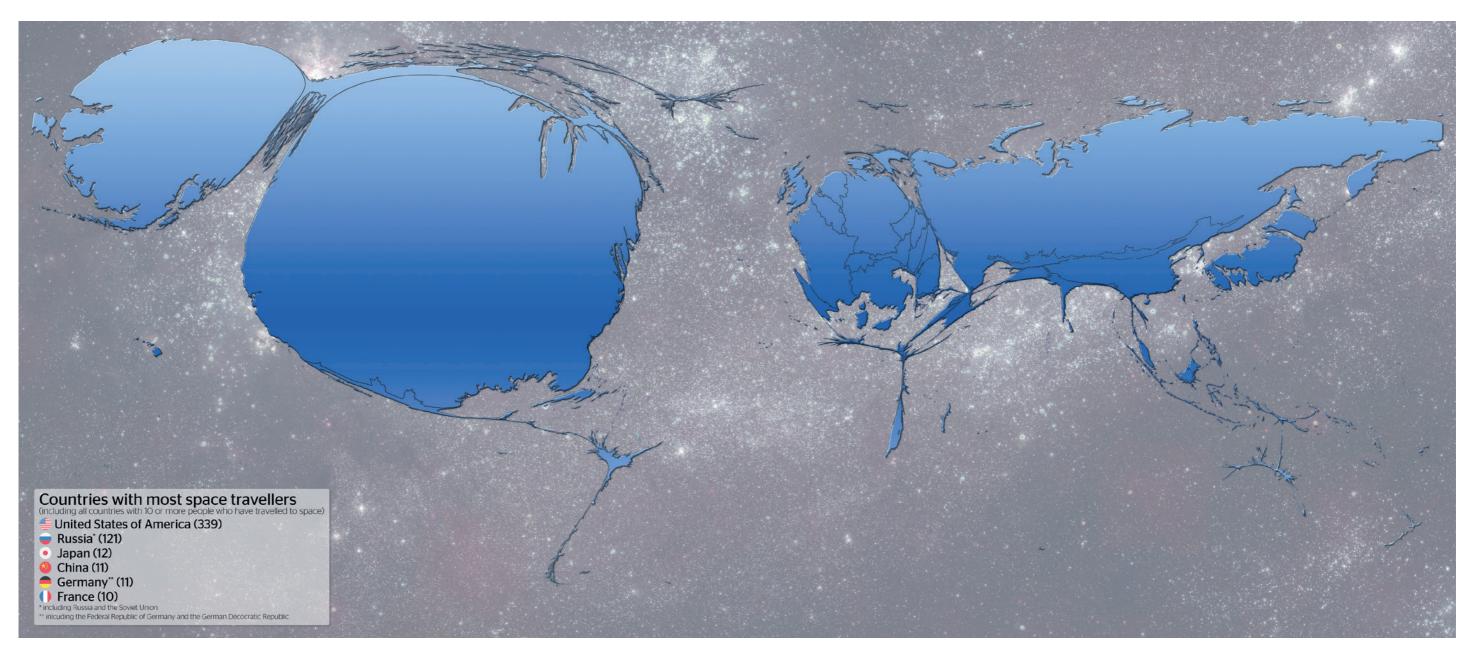
countries have made a journey into outer space, as documented in the CSIS Aerospace Security International Astronaut Database.

Although the term 'astronaut' is commonly applied to all space travellers, different countries use different monikers. Russian astronauts are also called cosmonauts. In China, the only country apart from the USA and Russia to launch its own crewed

spacecraft, the term taikonaut has become more widely used. With commercial space travel slowly becoming established, these terms will undoubtedly further evolve, as the distinction between tourism and professional space travel increases.

During its early years, human space exploration was a highly political endeavour. The race to space was a Cold War competition between the Soviet Union and the USA rooted in a demonstration of military power and superiority. That race laid the foundation for the two countries' dominance of human space exploration ever since. New players have emerged, primarily through the establishment of the European Space Agency and China's recent advances, but Russia and the USA continue to dominate.

This cartogram shows each country of the world proportional to the number of astronauts who have travelled to space in the history of human spaceflight. It thereby provides an overview of the country of origin of all people who have been to space so far. Apart from Russia and the USA, only Japan, China, Germany (including the former German Democratic Republic) and France have had ten or more people in space - and all are still far behind the two main players. The picture is similar on the International Space Station (ISS), launched in 1998 and owned and governed by intergovernmental treaties and agreements: of the 240 individuals from 19 countries who have been to the ISS, 151 have hailed from the USA and



48 from Russia. All other nations have sent fewer than ten crew members to the ISS over its 19 years of occupation.

Even if outer space knows no borders, the political lines drawn on Earth have been manifested in space. This cartogram reveals that human occupancy of space appears as a mirror image of the Cold War and that more recent geopolitical changes are starting to shine beyond the limits of our planet. So, too, does it mirror inequalities between the Global North and the Global South, prompting new debates. Privatisation and commodification are making their way into outer space. Some sociologists now point to new forms of colonialism as wealthy elites get access to this commodity, leaving marginalised communities behind.