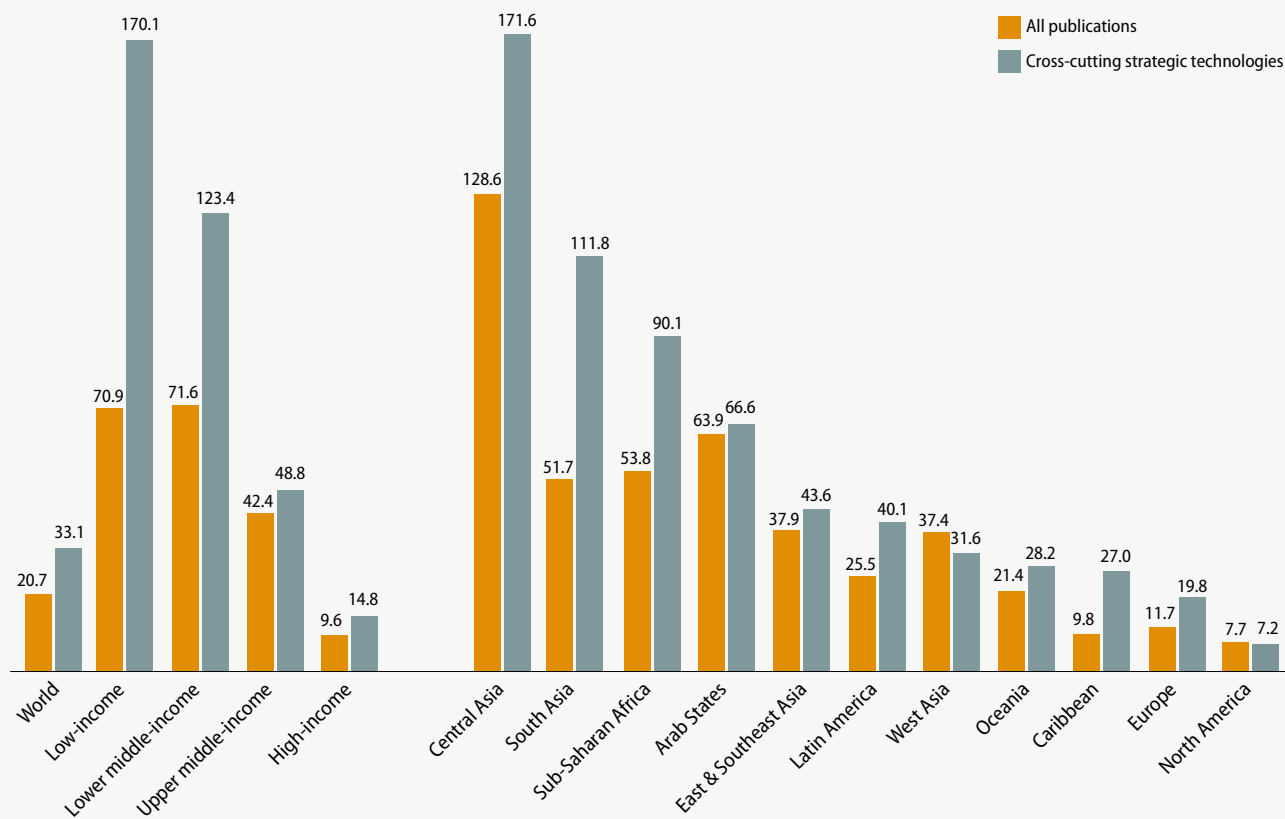




Figure 1.12: **Global trends in scientific publishing**

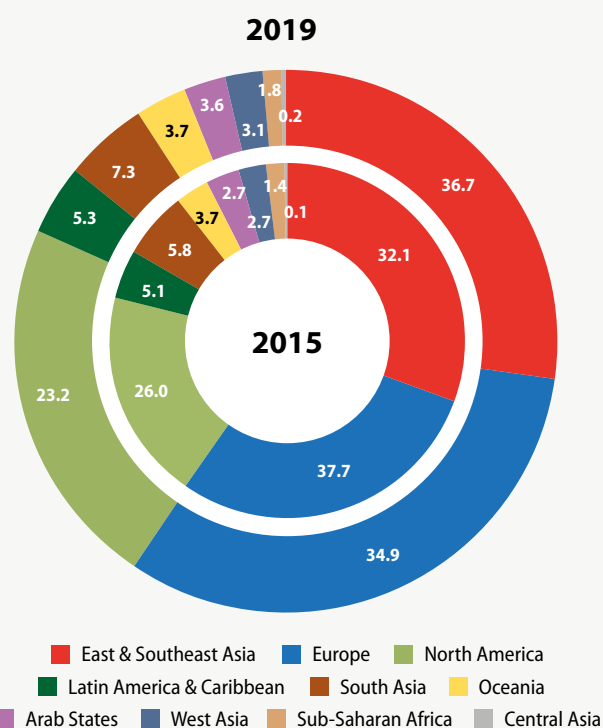
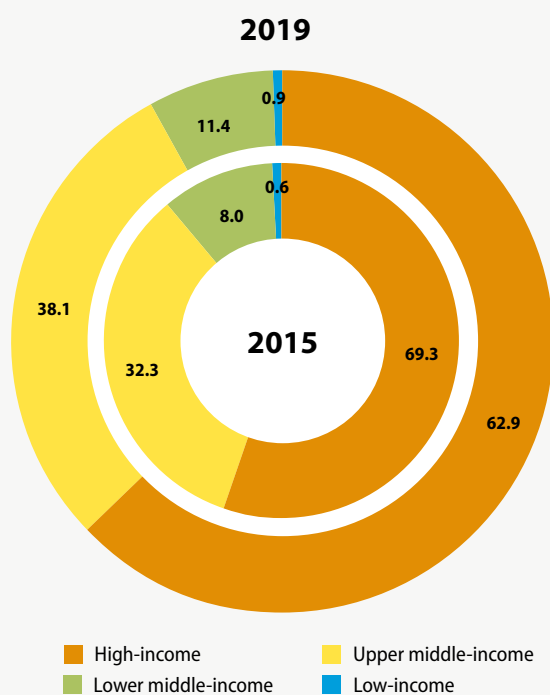
**Change in volume of output, 2015–2019 (%)**

By income group and region



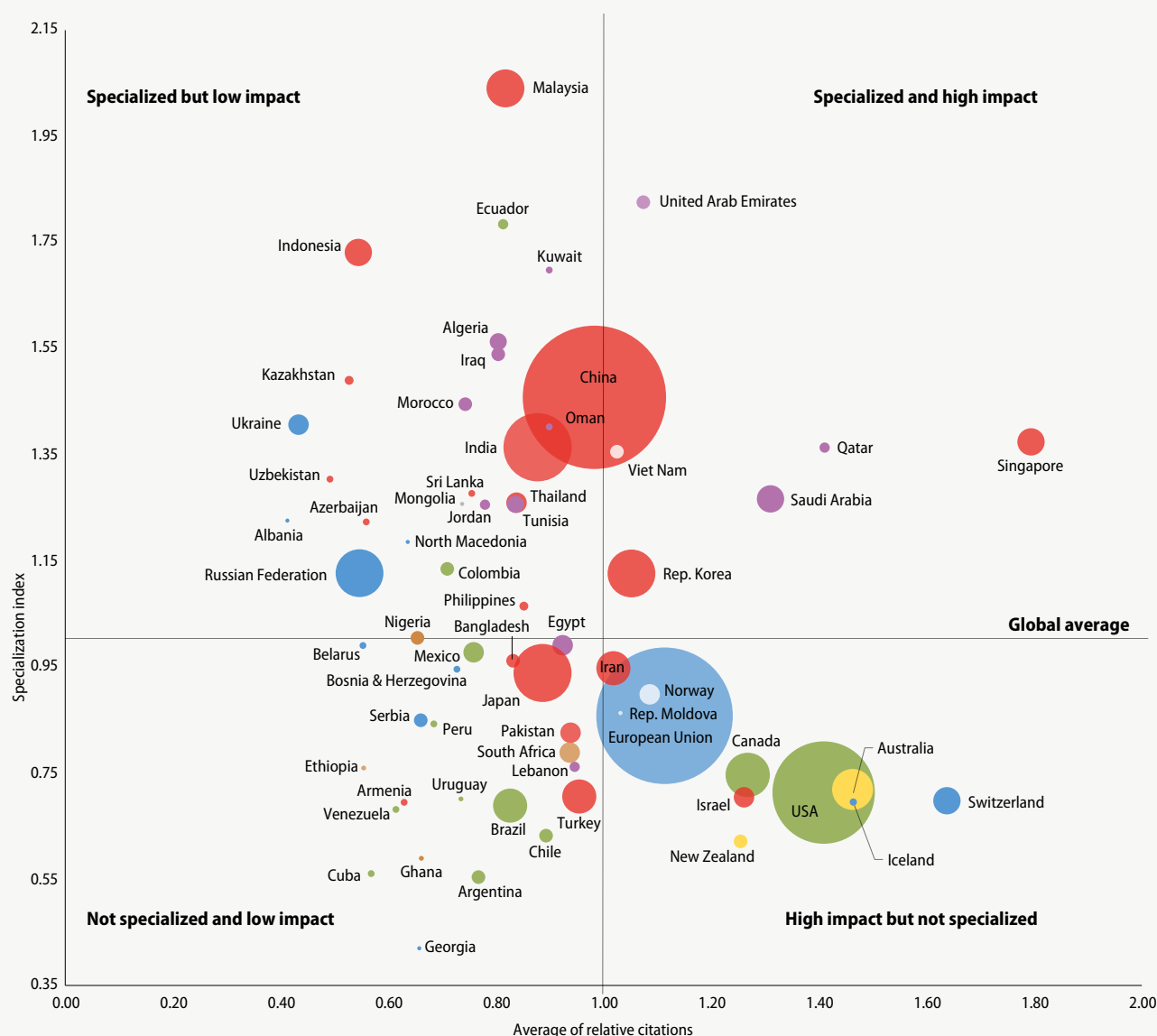
**Global shares of scientific publications, 2015 and 2019 (%)**

By income group and region

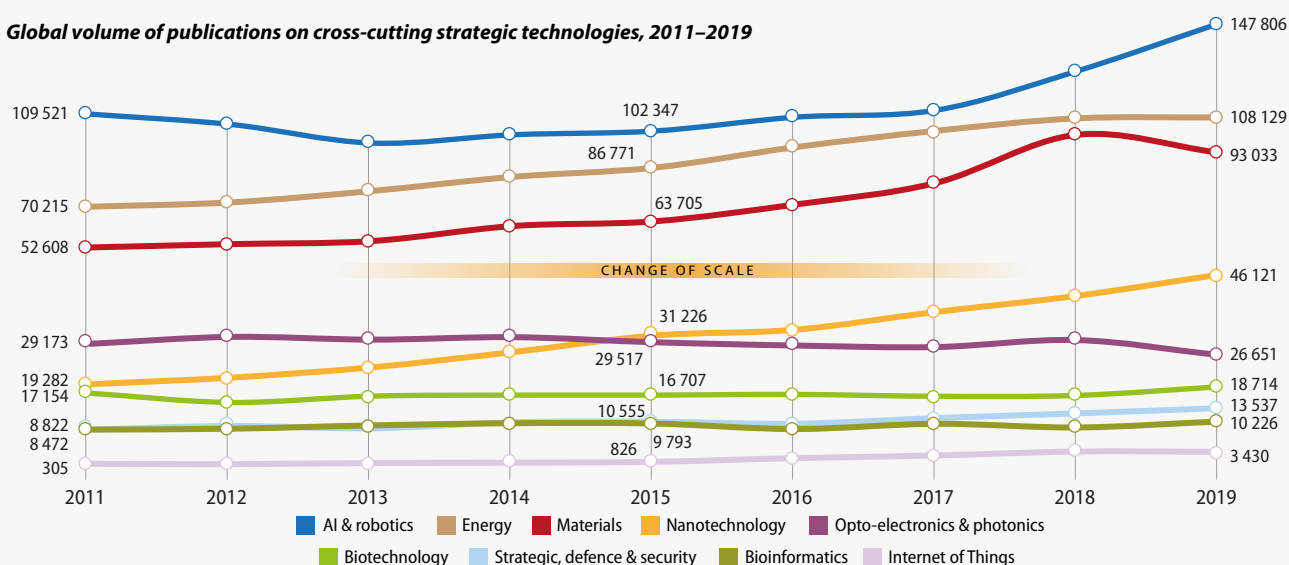


Source: Scopus (Elsevier), excluding Arts, Humanities and Social Sciences; data treatment by Science-Metrix

Among countries with at least 1 000 publications in this broad field over 2011–2019. The size of the circle is proportionate to the volume of publications



### Global volume of publications on cross-cutting strategic technologies, 2011–2019



Note: The sum of the numbers for the various regions exceeds the total number because papers with multiple authors from different regions are counted for each of these regions. Cross-cutting strategic technologies encompass AI and robotics, bioinformatics, biotechnology, blockchain technology, energy, Internet of Things, materials, nanoscience and nanotechnology, opto-electronics and photonics and strategic, defence and security studies. No Scopus-indexed journal specialized in blockchain technology published papers prior to 2018. AI stands for artificial intelligence.

Source: Scopus (Elsevier), excluding Arts, Humanities and Social sciences; data treatment by Science-Metrix