Escalating R&D

China's State Council wants research and development expenditure as a proportion of GDP to double by 2020.

China's research and development (R&D) expenditure currently stands at 1.4 percent of GDP, compared with 3.2 percent for Japan (2004), 2.7 percent for the United States and 1.4 percent for India. The State Council's aim is to raise R&D spending to US$113 billion per year within 15 years, up from approximately US$25 billion now.

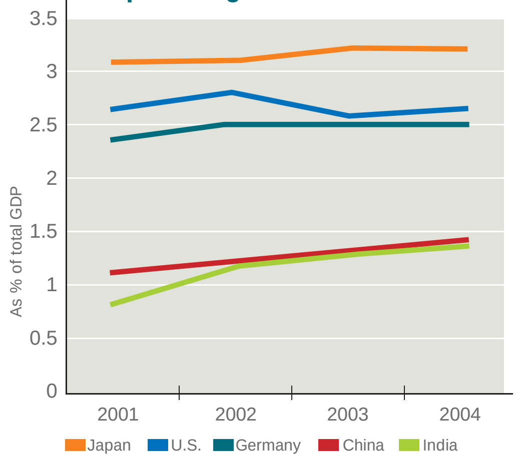
Most of the recent increases in China's R&D spending have come from larger firms, which are starting to compete with national brands on the international stage. Take telecommunications company Huawei. It spends ten percent of sales revenue on R&D and, like many other China firms, has opened domestic R&D facilities.

The amount of China's R&D expenditure coming from the private sector is growing. As of 2003, China's R&D spending was 60 percent financed by business, compared to 64 percent for the U.S. and 74 percent for Japan.

While the dollar figure on China's R&D spending is dwarfed by that of Japan and the U.S., the real value of its expenditure is higher, thanks to lower costs – putting China third globally, on the basis of purchasing power parity. However, the figures mask the extent to which China's R&D effort faces a shortfall in expertise and facilities around certain industries.

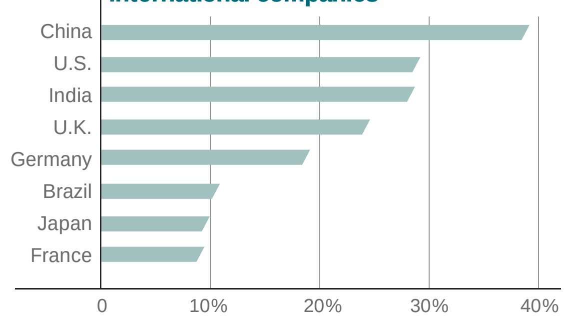
India's R&D investment levels are catching up with China's, as multinational companies start to take an interest in the subcontinent. With the right government support, India may emerge as an R&D giant alongside China. In 2003, the Indian government announced its intention to see its R&D intensity – expenditure as a percentage of GDP – to rise to two percent by 2007.

R&D expenditure as a percentage of GDP



Source: *R&D Magazine*, 2005

Proposed destinations for R&D expenditure among international companies



Source: The Economist Intelligence Unit