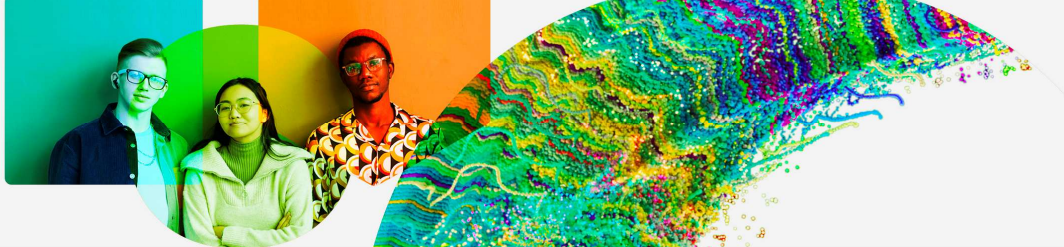# Global Innovation Index 2024

Shenzhen–Hong Kong–Guangzhou

Shenzhen–Hong Kong–Guangzhou is a multi-cluster spanning an area around China and Hong-Kong, China. It filed 2,303 PCT applications and published 3,469 scientific articles, both per 1 million inhabitants over the last five years, making it the:

2nd largest science and technology cluster in 2024

30th S&T cluster by intensity (relative to population density) in 2024
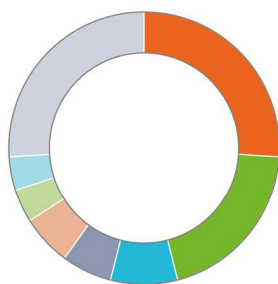
Top PCT applicants

		Patents	Share
1	HUAWEI	26,949	23%
2	OPPO	9,001	8%
3	ZTE	6,606	6%

Top publishing organizations

		Articles	Share
1	SUN YAT SEN UNIVERSITY	22,539	13%
2	SOUTH CHINA UNIVERSITY OF TECHNOLOGY	15,657	9%
3	SHENZHEN UNIVERSITY	9,445	5%

Top technology fields in Shenzhen–Hong Kong–Guangzhou

Patents

- Digital coms. (26%)
- Computer tech. (20%)
- Audio-visual tech. (8%)
- Telecoms (6%)
- Electrical machinery (6%)
- Measurement (4%)
- Optics (4%)
- Other (26%)

Publications
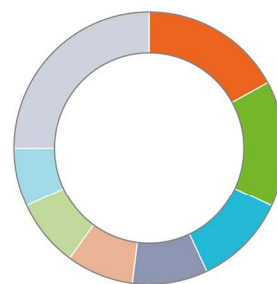
- Chemistry (17%)
- Engineering (15%)
- Technology (11%)
- Biochem. & biotech. (9%)
- Clinical medicine (8%)
- Earth sciences (8%)
- Physics & math (7%)
- Other (25%)

3% of Shenzhen–Hong Kong–Guangzhou's PCT patent applications are filed in collaboration with other inventors, with Beijing, Shanghai–Suzhou and Melbourne emerging as the top collaborative locations.

65% of Shenzhen–Hong Kong–Guangzhou's scientific articles are published in collaboration with other organizations, with the top three collaborating locations being Beijing, Shanghai–Suzhou and Wuhan.