Cologne, Germany

Cologne is the second-ranked cluster, out of 9 German clusters, that falls within the top 100 S&T clusters in 2023. It filed 775 PCT applications and published 3,558 scientific articles, both per 1 million inhabitants over the last five years, making it the:

25th largest science and technology cluster in 2023 (down two spots from 2022)

79th S&T cluster by intensity (relative to population density) in 2023 (unchanged from 2022)
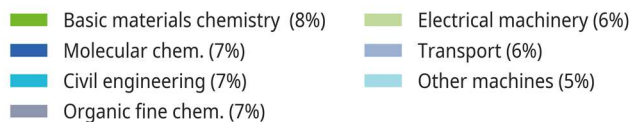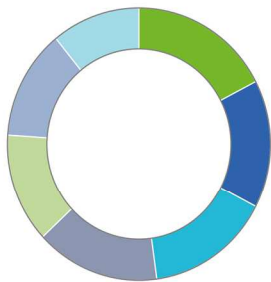
Top PCT applicants

		Patents	Share
1	Henkel	585	8%
2	Covestro Deutschland	453	6%
3	Bayer	381	5%

Top publishing organizations

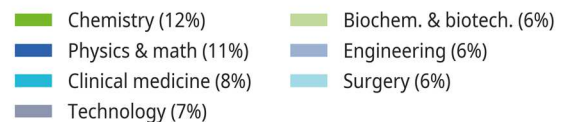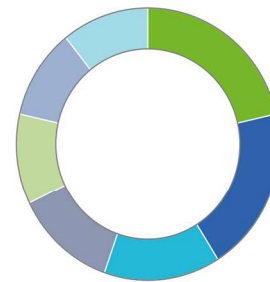|		Articles	Share
1	University of Bonn	5,220	15%
2	University of Cologne	4,611	13%
3	Ruhr University Bochum	4,337	13%

Top technology fields in Cologne

Patents

- Basic materials chemistry (8%)
- Molecular chem. (7%)
- Civil engineering (7%)
- Organic fine chem. (7%)
- Electrical machinery (6%)
- Transport (6%)
- Other machines (5%)

Publications

- Chemistry (12%)
- Physics & math (11%)
- Clinical medicine (8%)
- Technology (7%)
- Biochem. & biotech. (6%)
- Engineering (6%)
- Surgery (6%)

29% of Cologne's PCT patent applications are filed in collaboration with other inventors, with Aachen, Frankfurt am Main and Berlin emerging as the top collaborative locations.

69% of Cologne's scientific articles are published in collaboration with other organizations, with the top three collaborating locations being Berlin, Munich and Frankfurt am Main.