



Frankfurt am Main, Germany

Frankfurt am Main is the fifth-ranked cluster, out of 9 German clusters, that falls within the top 100 S&T clusters in 2023. It filed **1,419 PCT applications** and published **4,875 scientific articles**, both per 1 million inhabitants over the last five years, making it the:

45th largest science and technology cluster in 2023 (down two spots from 2022)

42nd S&T cluster by intensity (relative to population density) in 2023 (up three spots from 2022)

Top PCT applicants

		Patents	Share
1	Merck Patent	510	9%
2	Sanofi-Aventis	225	4%
3	Continental Automotive GmbH	223	4%

Top publishing organizations

		Articles	Share
1	Johannes Gutenberg University of Mainz	4,179	23%
2	Goethe University Frankfurt	3,344	18%
3	Darmstadt University of Technology	1,852	10%

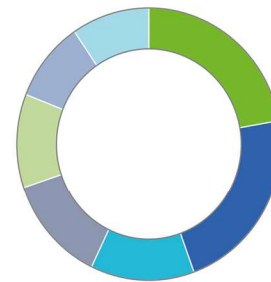
Top technology fields in Frankfurt am Main

Patents



Medical tech. (11%)	Basic materials chemistry (7%)
Digital coms. (7%)	Transport (6%)
Organic fine chem. (7%)	Electrical machinery (4%)
Pharma (7%)	

Publications



Chemistry (14%)	Earth sciences (7%)
Physics & math (14%)	Clinical medicine (6%)
Technology (8%)	Surgery (6%)
Biochem. & biotech. (8%)	

39% of Frankfurt am Main's PCT patent applications are filed in collaboration with other inventors, with **Heidelberg-Mannheim**, **Cologne** and **Chicago** emerging as the top collaborative locations.

73% of Frankfurt am Main's scientific articles are published in collaboration with other organizations, with the top three collaborating locations being **Cologne**, **Heidelberg-Mannheim** and **Berlin**.