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The Swedish Foundation for International
Cooperation in Research and Higher Education

Research Collaboration Sweden - China

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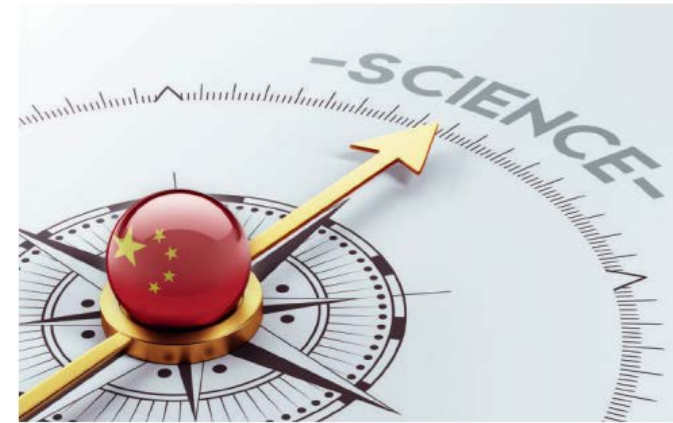
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Outline of the report

Summary

1. Preface
2. Introduction
3. Data and methodology
4. Overall development of research collaboration
5. Comparison with other countries
6. Which scientific disciplines are involved in collaborations?
7. Collaborating institutions
8. Collaborating researchers
9. Student mobility
10. The STINT–NSFC mobility programme
11. What does this study tell us?
12. Conclusions and recommendations



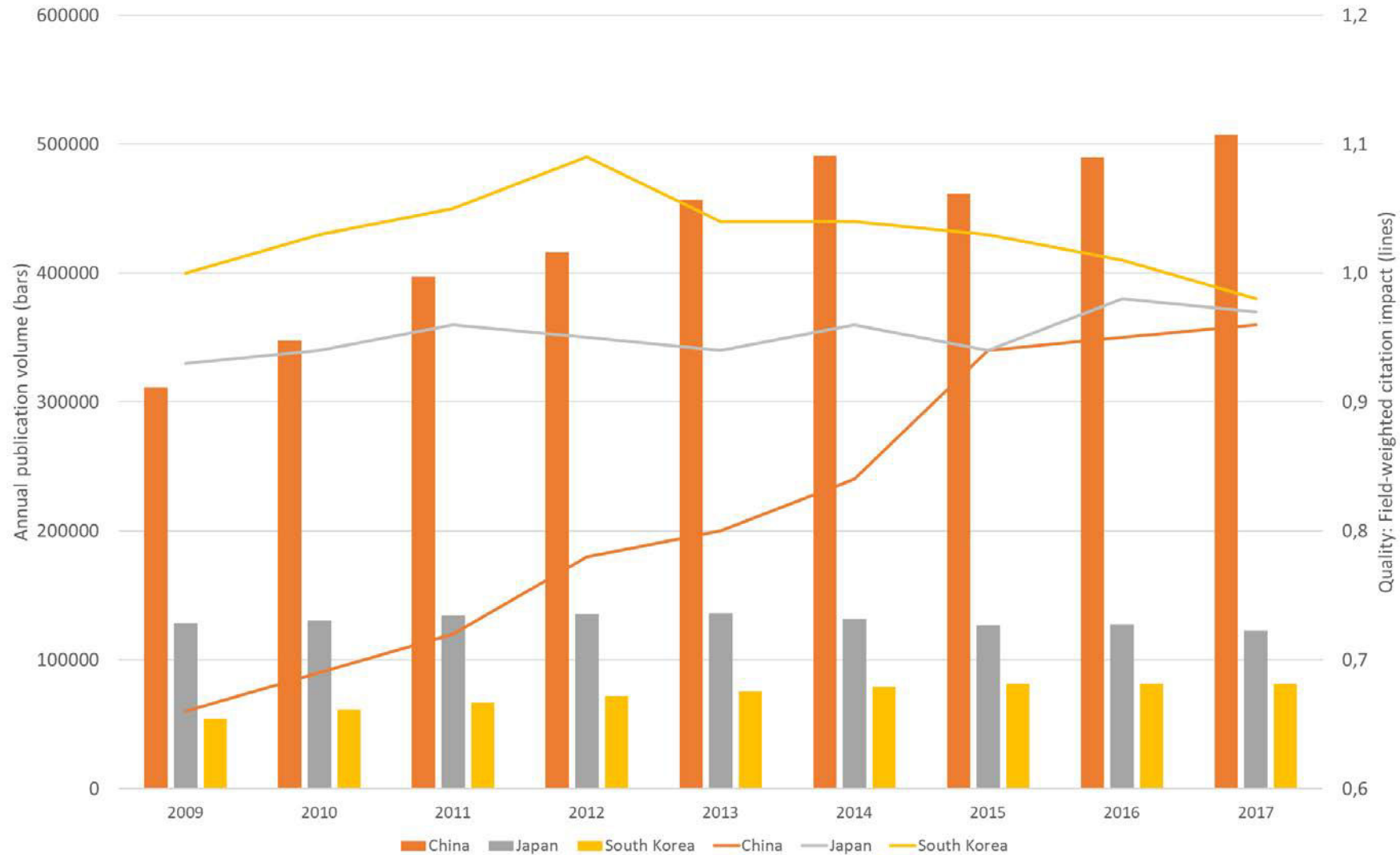
**Academic collaboration:
Sweden–China**



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Volume and citation impact development

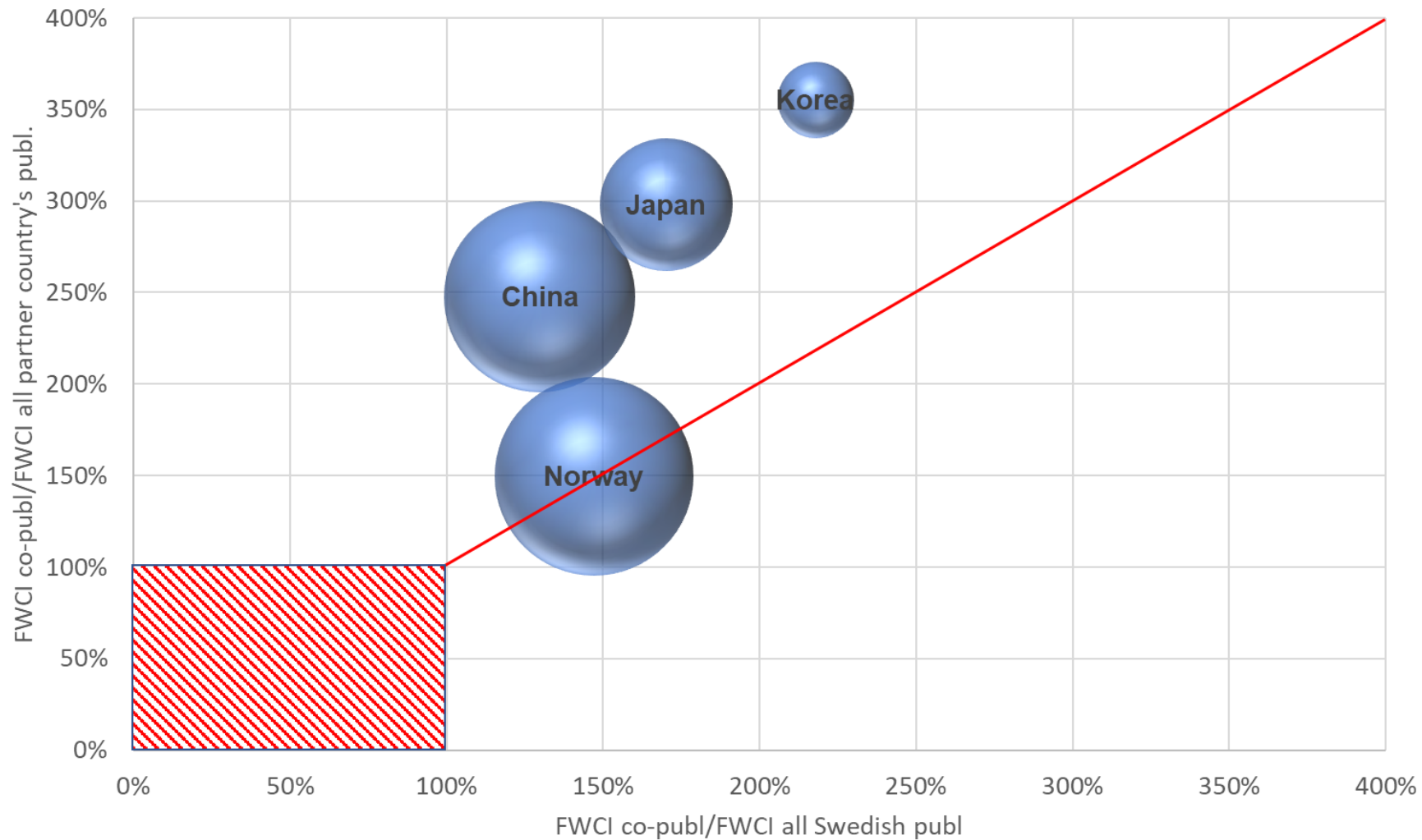




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Bubble size: Co-publications with Sweden (<100 authors)

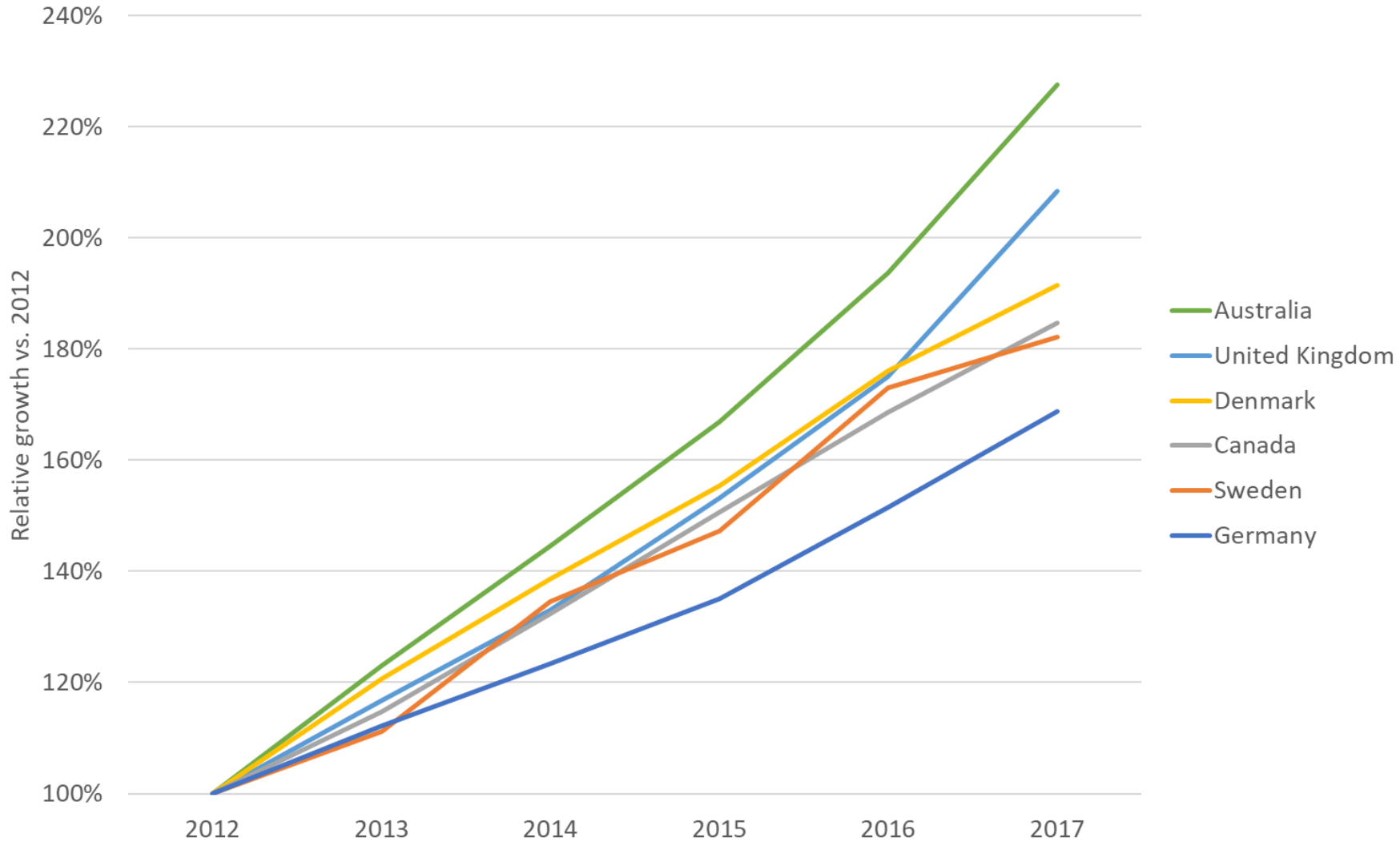




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Relative growth in co-publications with China

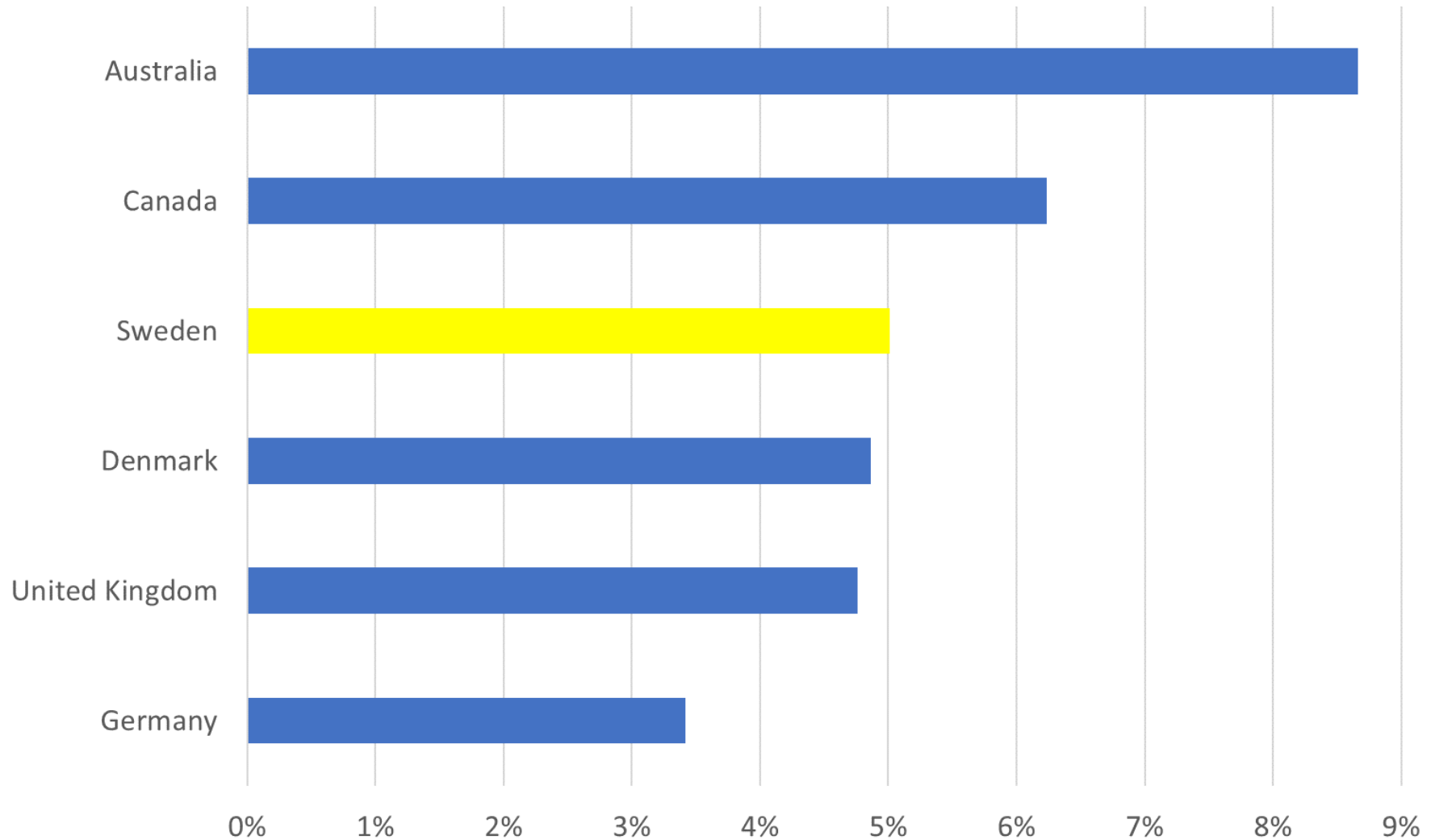




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Co-publications with China - share of total publication volume

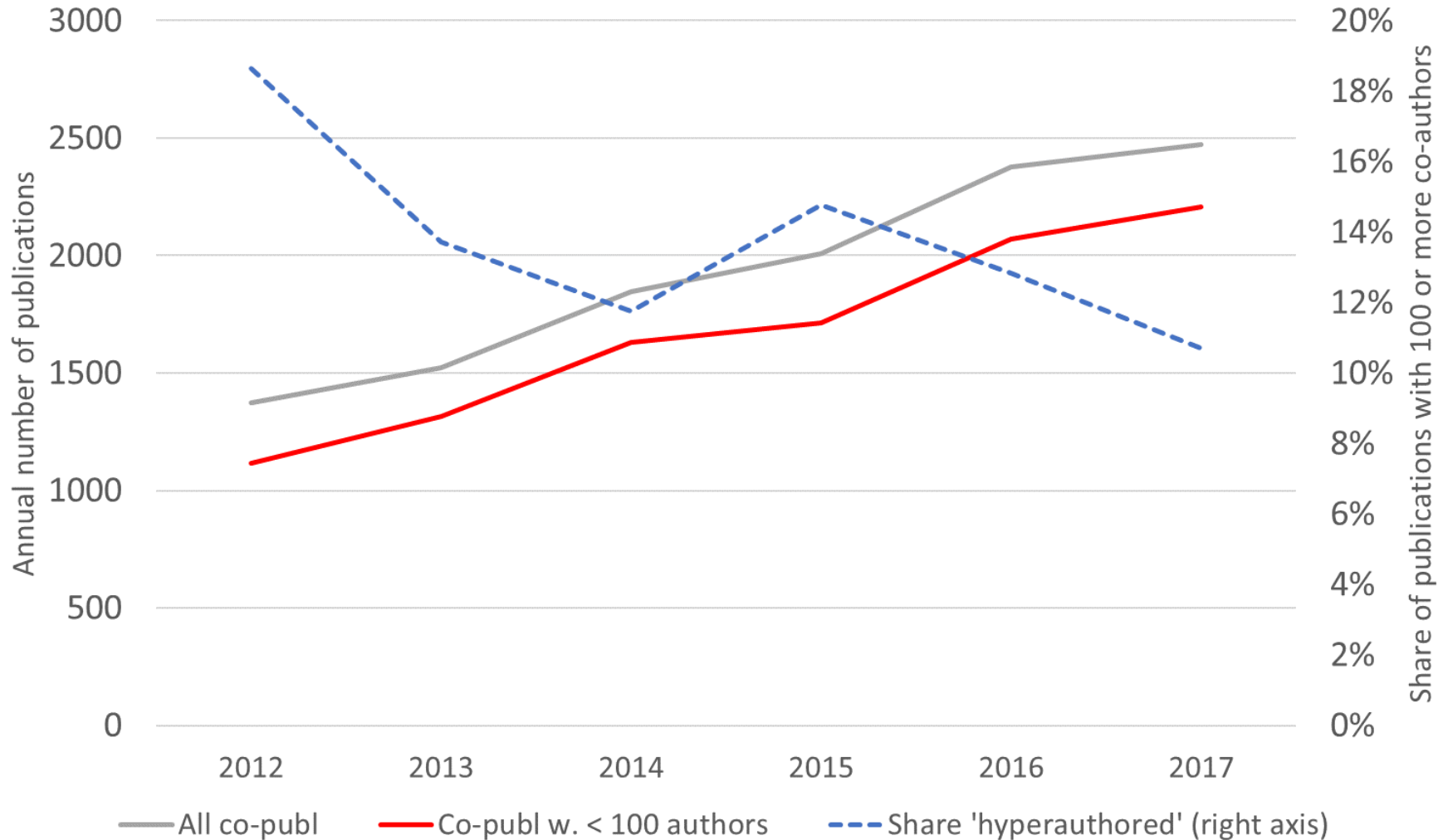




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Co-publications Sweden - China

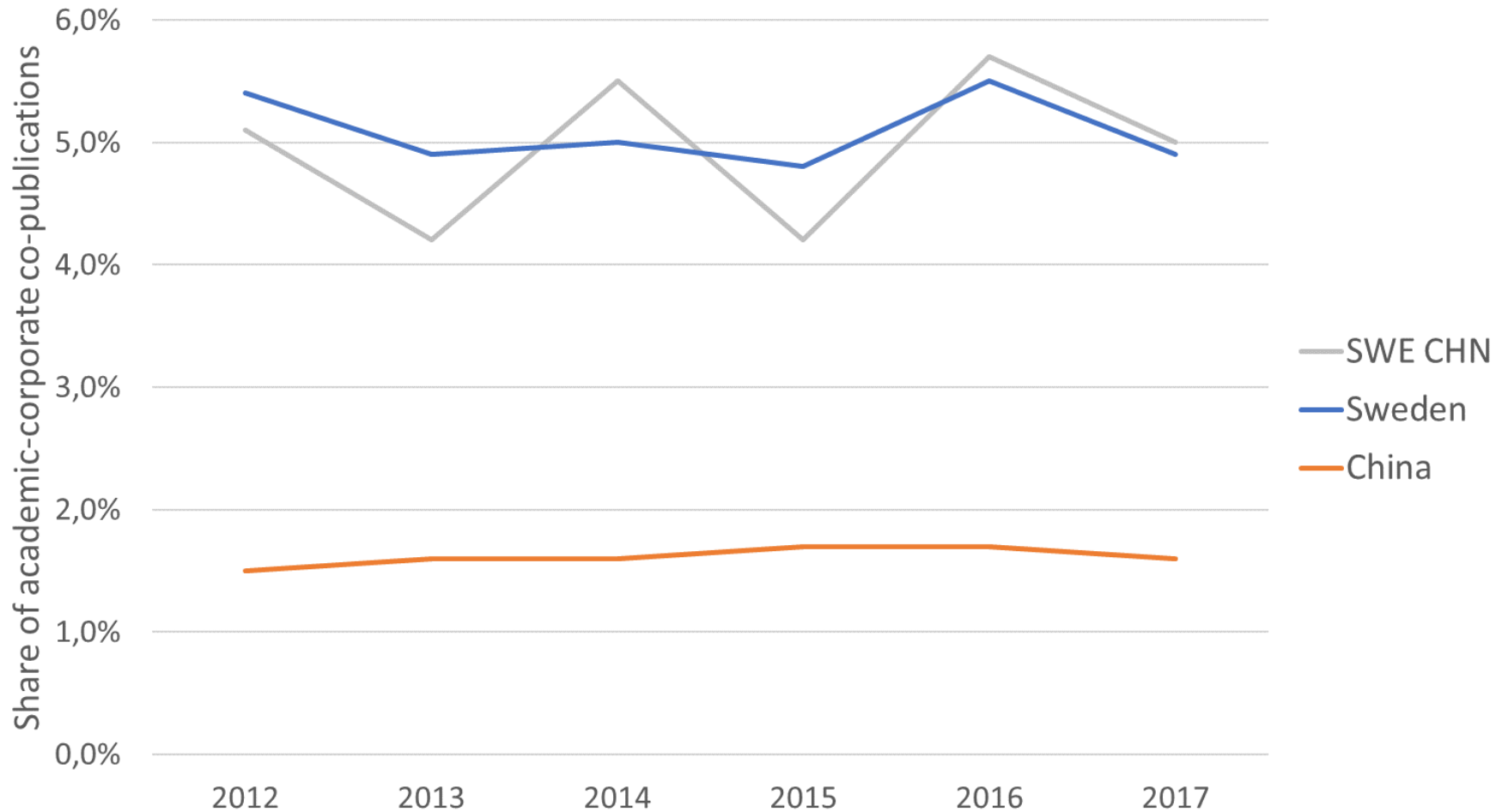




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Academic-corporate co-publications in Sweden- China co-publications (<100 authors)



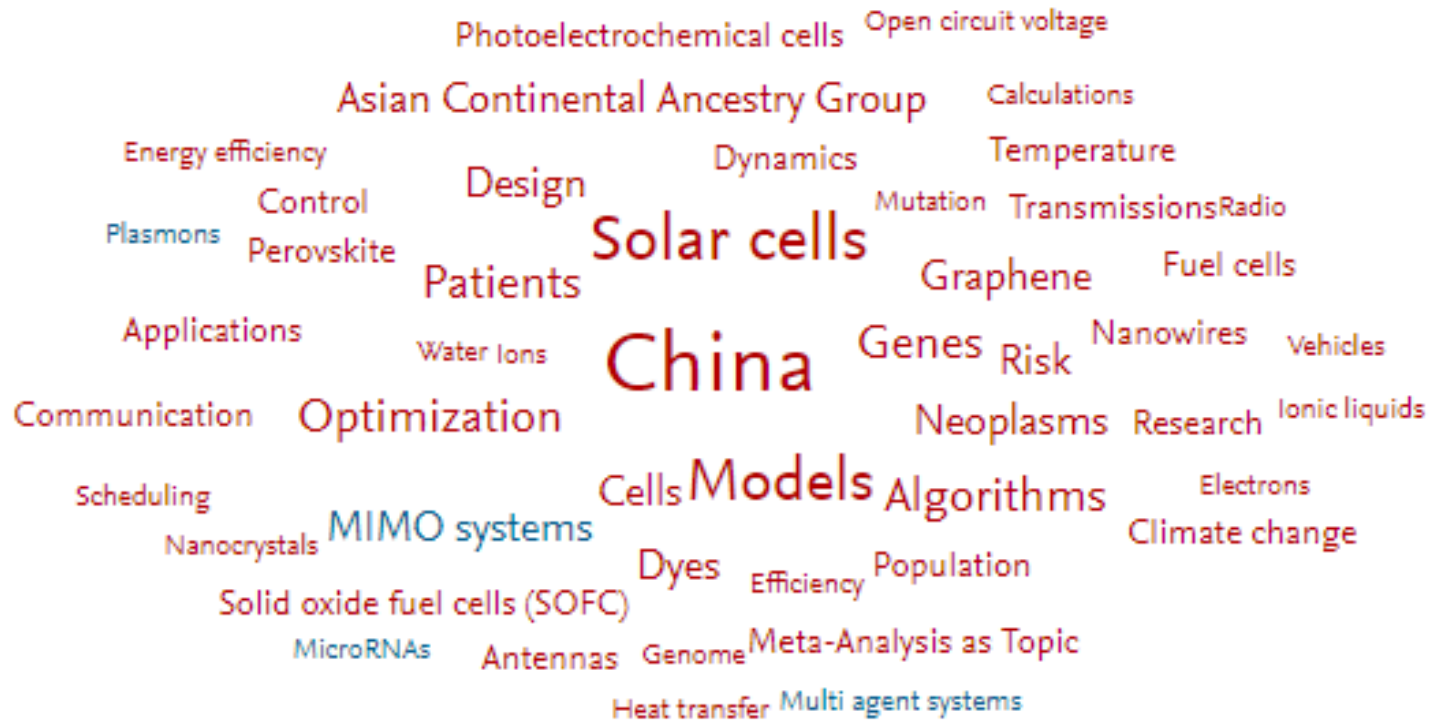


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Co-publications Sweden - China

Fingerprint of co-publ. <100 authors



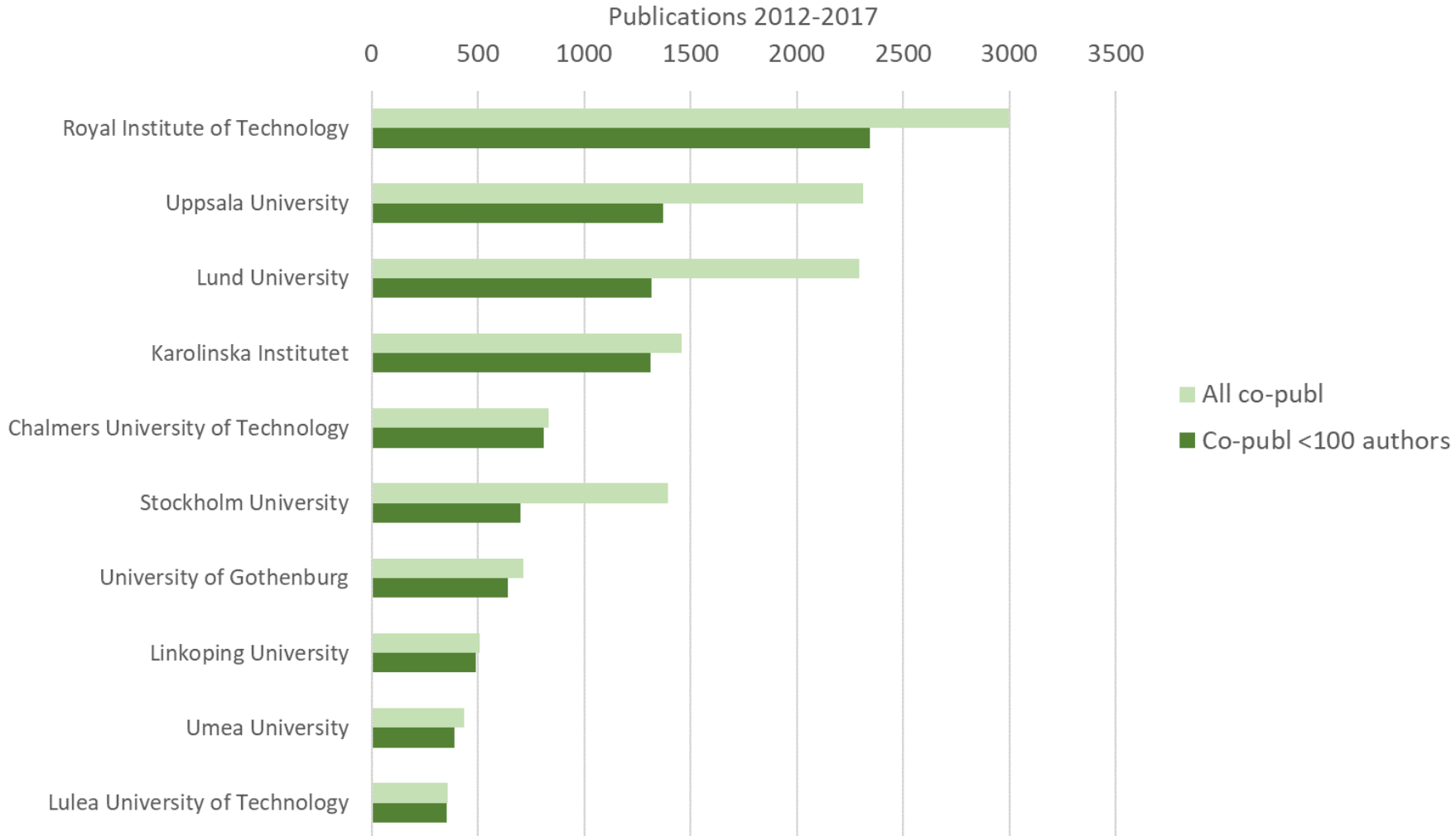
AAA relevance of keyphrase | declining growing (2012-2016)



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Co-publications with China - Top 10 HEIs in Sweden

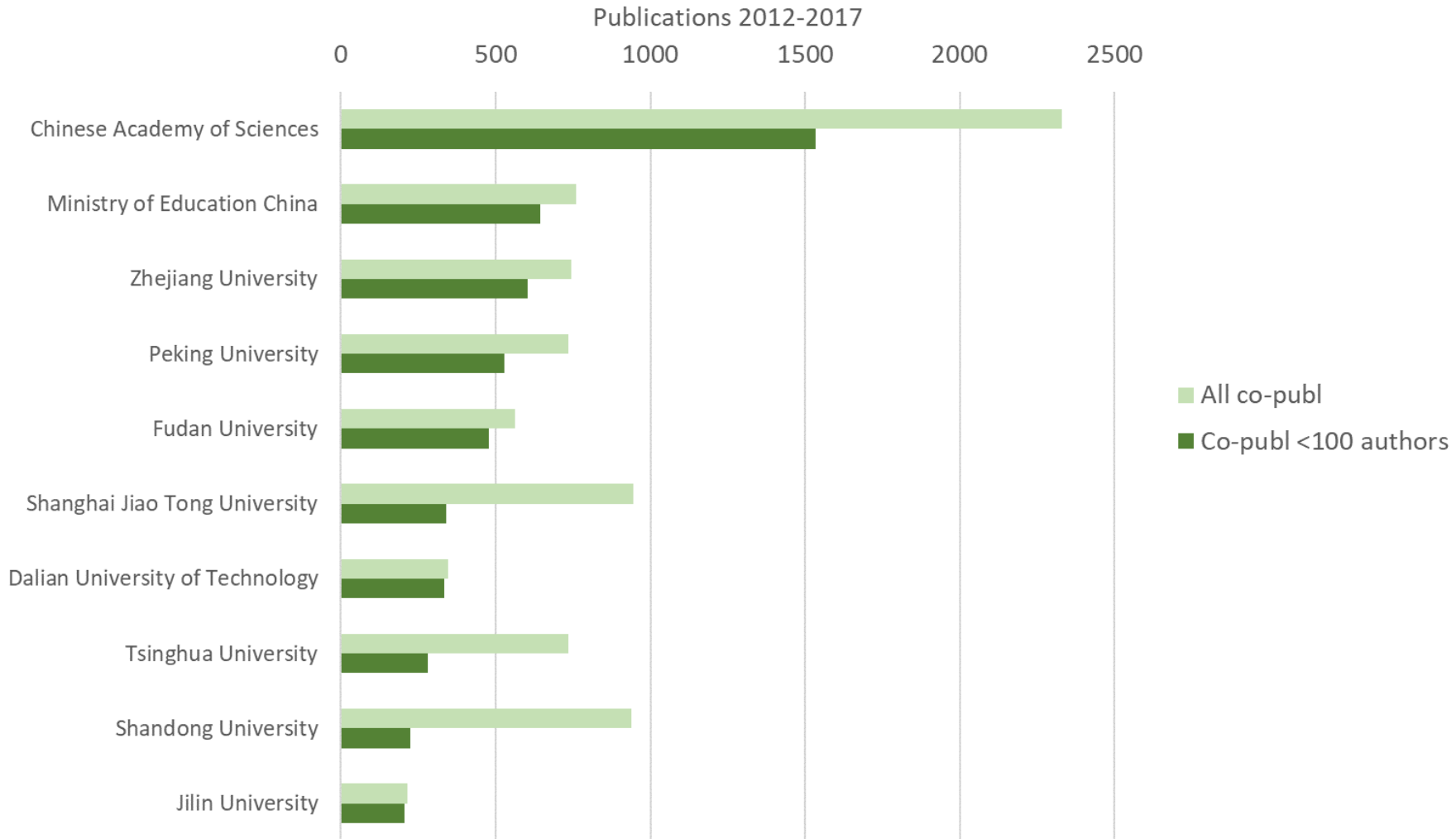




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Co-publications with Sweden - Top 10 HEIs in China





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Most productive researchers (<100 co-auth)

| No. of publ. | Author | Scopus main affiliation | Second affiliation | Research area |
|--------------|-------------------------|--|-----------------------------------|--|
| 215 | Sun, Licheng | KTH Royal Institute of Technology | Dalian University of Technology | Catalysts, solar cells... |
| 204 | He, Sailing | KTH Royal Institute of Technology | Zhejiang University | Metamaterials,, antennas... |
| 141 | Sundén, Bengt | Lund University | | Heat transfer, fuel cells.. |
| 115 | Liu, Johan | Shanghai University | Chalmers University of Technology | Thermal insulating materials, graphene... |
| 89 | Wang, Shumin | Shanghai Institute of Microsystem and Information Technology Chinese Academy of Sciences | Chalmers University of Technology | Semiconductors... |
| 86 | Vasilakos, Athanisos V. | Lulea University of Technology | | Wireless networks, cloud computing... |
| 82 | Li, Xin | KTH Royal Institute of Technology | | Solar cells, fluorescence... |
| 82 | Yan, Jinyue | KTH Royal Institute of Technology | Mälardalen University | Solar cells, energy... |
| 82 | Zhu, Bin | China University of Geosciences | KTH Royal Institute of Technology | Fuel cells... |
| 77 | Luo, Yi | Hefei National Laboratory for Physical Sciences at Microscale | KTH Royal Institute of Technology | Materials science, chemical engineering... |

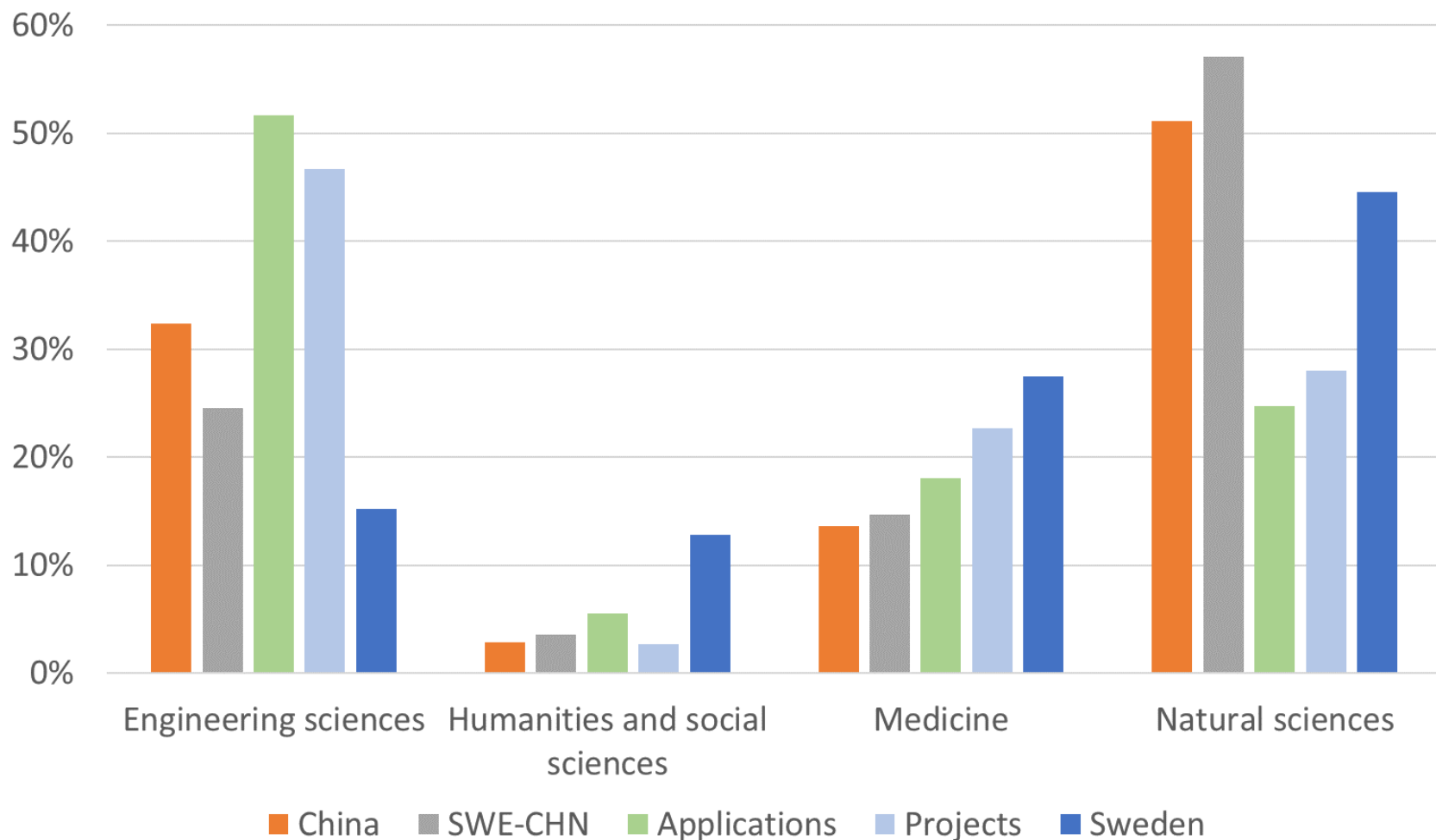


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STINT – NSFC mobility programme

Scientific profiles 2012-2017



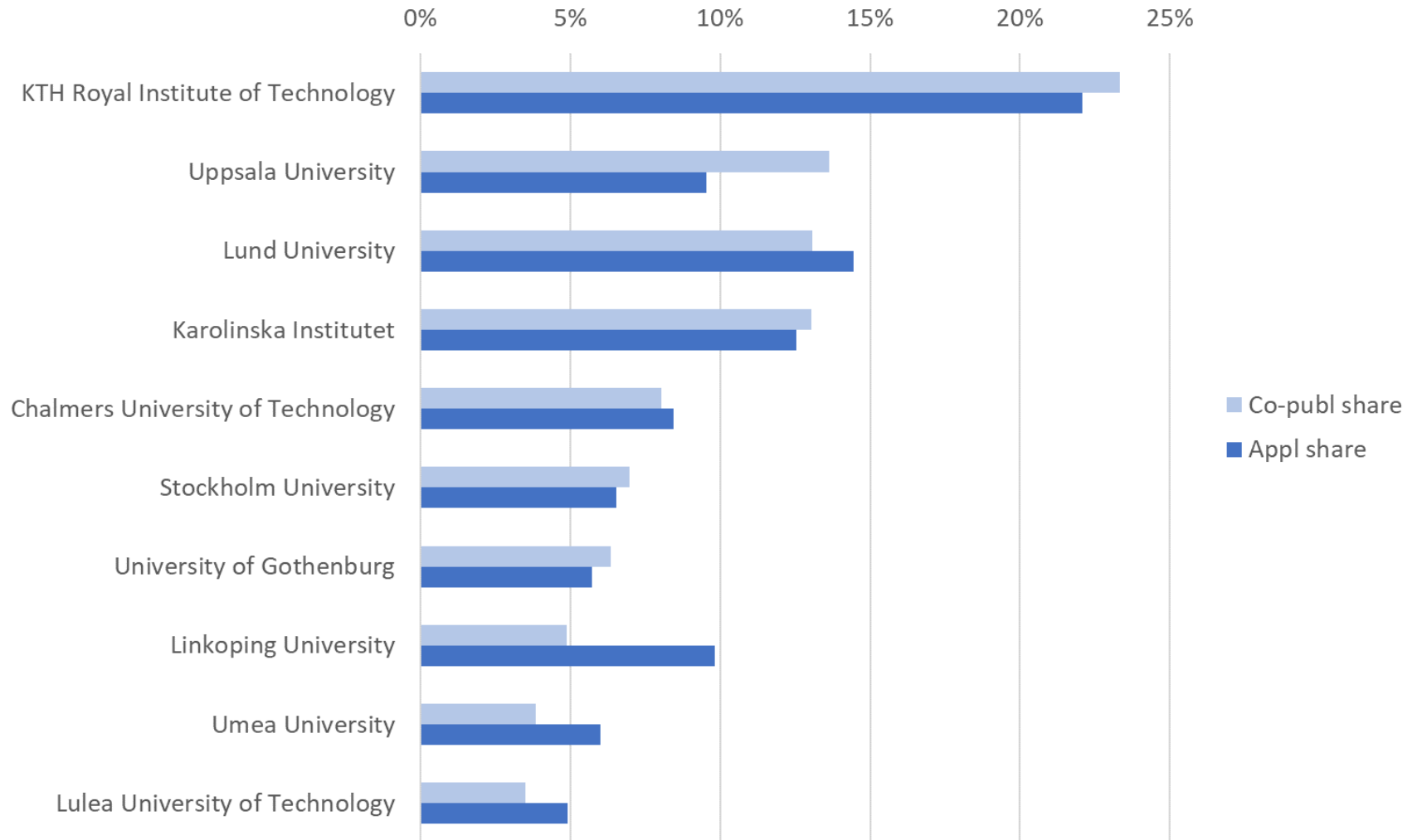


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STINT – NSFC mobility programme

Share of applications and of Sweden-China co-publications with <100 authors

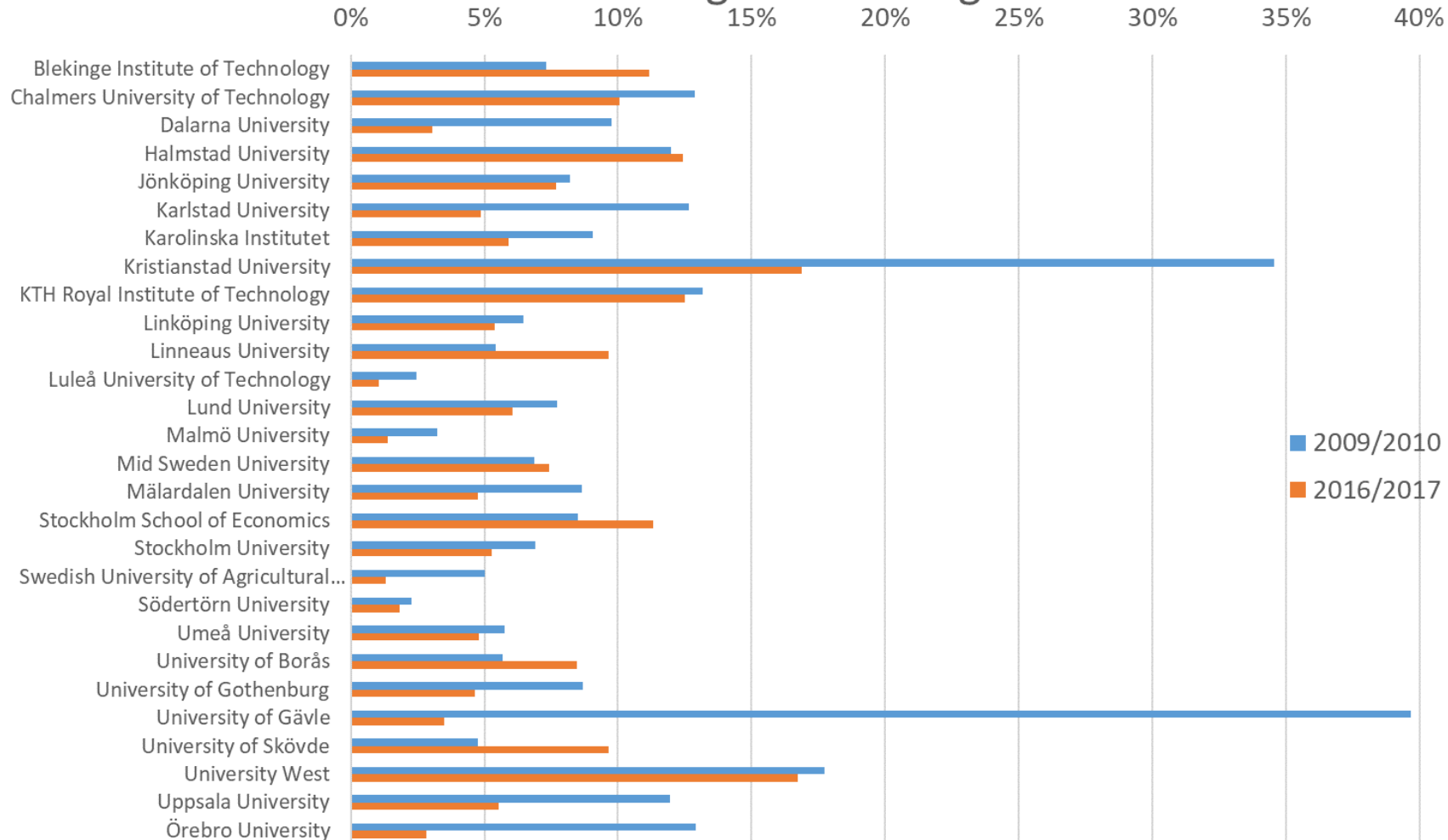




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Share of Chinese among all incoming students





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Incoming students from China

| Incoming Chinese students in relation to population size | |
|---|--------|
| Australia | 0,472% |
| New Zealand | 0,362% |
| Canada | 0,170% |
| United Kingdom | 0,140% |
| United States | 0,091% |
| Korea, Rep. | 0,068% |
| Japan | 0,062% |
| France | 0,038% |
| Finland | 0,032% |
| Germany | 0,029% |
| Sweden | 0,024% |
| Denmark | 0,023% |
| Switzerland | 0,018% |
| Norway | 0,013% |
| Austria | 0,007% |
| Belgium | 0,005% |
| Brazil | 0,000% |



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Conclusions and recommendations

Sweden - China research collaboration is

- Growing and delivering high citation impact
- Having an emphasis on natural sciences and engineering & technology
- Focusing to some extent on topics in China.

Recommendation: Support collaboration.

Approaches:

- Broaden the participation (HEIs as well as disciplines)
- Study how student mobility contributes
- Ensure that the collaboration contributes to innovation.