

## Book overview

# **The geography of scientific collaboration: theory, evidence and policy**

*(Forthcoming in 2017)*

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The book is about scientific collaboration and its spatial dimensions. The topic lies at the intersection of two themes: (1) collaboration in science, and (2) geography of scientific activity. Both themes are frequently analysed in a growing body of literature. But there is no monograph that specifically addresses the spatial dimension of scientific collaboration. Therefore we aim to write a book that gathers selected research results and shows current findings on “the geography of scientific collaboration”.

The book offers a complex analysis of the spatial aspects of scientific collaboration. The topic is addressed at diverse levels: individual (personal), organizational, urban, regional, national, and international. We analyse the spatial patterns of scientific collaboration along with their determinants and consequences. Then we review and systemise reasons for collaboration, processes of collaboration and its products (e.g. co-publications, co-patents, etc.), as well as various effects of collaboration, including its influence on the quantity and quality of scientific activity. The examples of scientific collaboration policy discussed in the book are taken from three different settings: the European Union, the USA and China. Through a number of case studies we analyse the background, development and evaluation of these policies. Altogether, this serves as a basis for conclusions and policy recommendations which are presented in the final chapter.

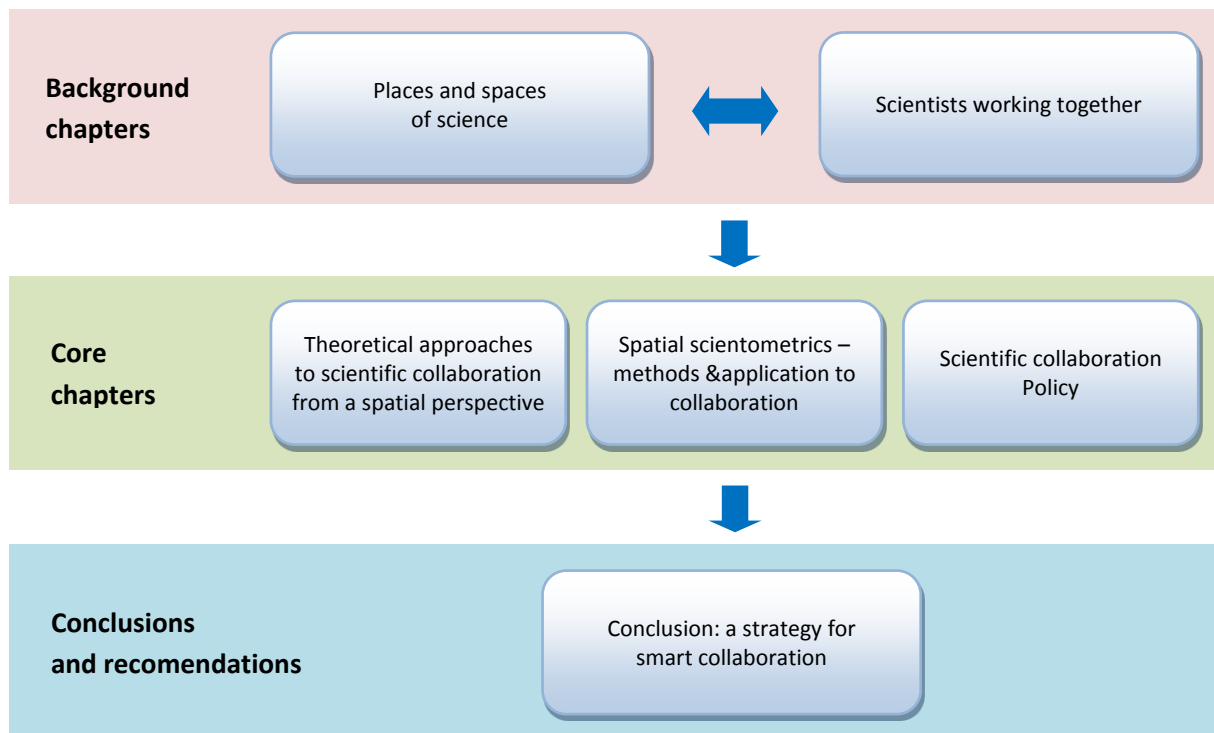
The underlying idea of the book refers to the spatial scientometrics research programme proposed by Franken, Hardeman and Hoekman in a paper published in 2009<sup>1</sup>, although we focus on one aspect of spatial scientometrics, i.e. scientific collaboration and its spatial dimension. The theme is broad enough to form a standalone monograph, and at the same time it is not too vast for a reasonably sized book.

The topic of the book is important from both theoretical and practical perspectives. Collaboration can serve as a handy tool for boosting scientific performance. Decision makers, as well as experts and R&D managers, pay special attention to international collaboration as most valuable in terms of affecting the quantity and quality of scientific activities. This assumption has been the basis for a large number of policies. The European Union’s Framework Programmes and subsequent EUROPE 2020 programme provide examples of probably the largest policies of this kind. Collaboration incentives are also broadly used at national, regional and organizational levels. This implies the growing need for evaluation of the effectiveness of scientific collaboration policies. For this reason, we review existing evidence on the effect of collaboration on scientific performance.

The main themes of the book are organized into six chapters. The diagram below shows the relation between chapters. The first two background chapters separately analyse scientific collaboration and the spatial aspects of science, while the next three core chapters bring them together. The final chapter includes conclusions and policy recommendations.

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<sup>1</sup> Frenken, K., Hardeman, S., & Hoekman, J. (2009). Spatial scientometrics: Towards a cumulative research program. *Journal of Informetrics*, 3(3), 222-232.



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