



# **Measuring invention cooperation using patent information, the case of a developing country**

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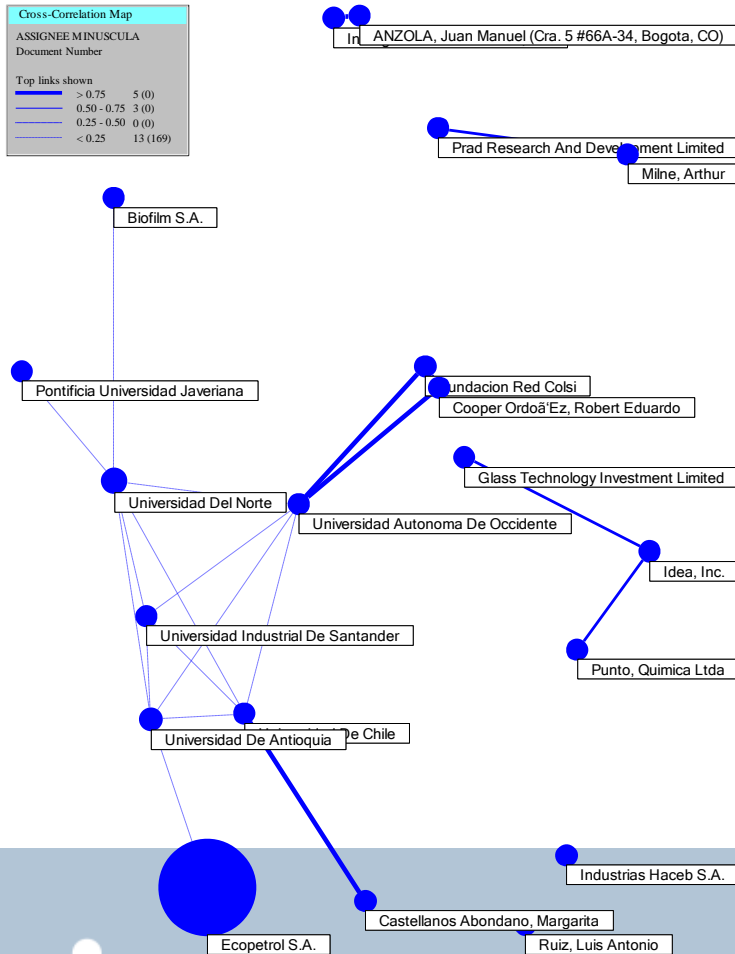
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## Motivation - Objective

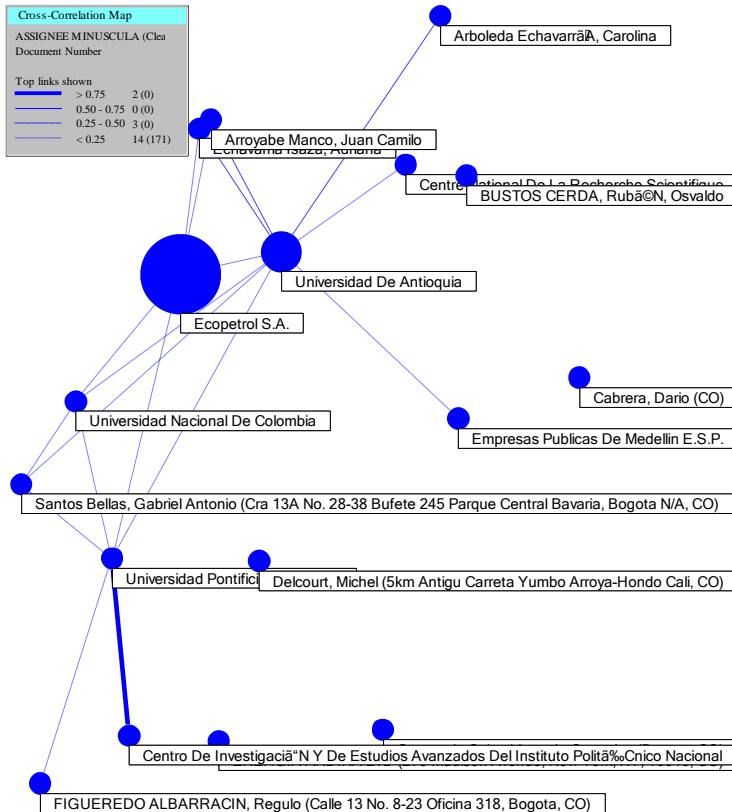
- Graf and Henning (2009), showed that public research patenting (including universities) can play a significant role on innovation systems .
- In Colombia, research activities are carried out mainly by universities
- University patenting is relatively new in Colombia although it is increasing
- What is the role of universities in co-patent networks in Colombia?

# The 20 assignees with a higher number of patents



- Compared to developed countries, co-patent activity is not concentrated on firms
- The State's oil company Ecopetrol is important in terms of number of patents
- But universities seem to be more connected
- Also, individual patenting is very high

# The most central actors (betweenness centrality)



- Colombia's oil company may be important in terms of patents
- But universities are the most central actors in the network
- They can act as “gate keepers”

# Conclusions

- Universities in Colombia may act as “gate keepers” which gives them the potential to difuse information and knowledge throughout the system
- Intellectual property seems to be in early stages in Colombia, this is the case not only for universities but for firms
- Policy should focus on enhancing networking and collaboration