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From patent data to information tool: Assessing India as an innovation collaboration partner

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PATENT STATISTICS, INNOVATION MANAGEMENT AND IPR

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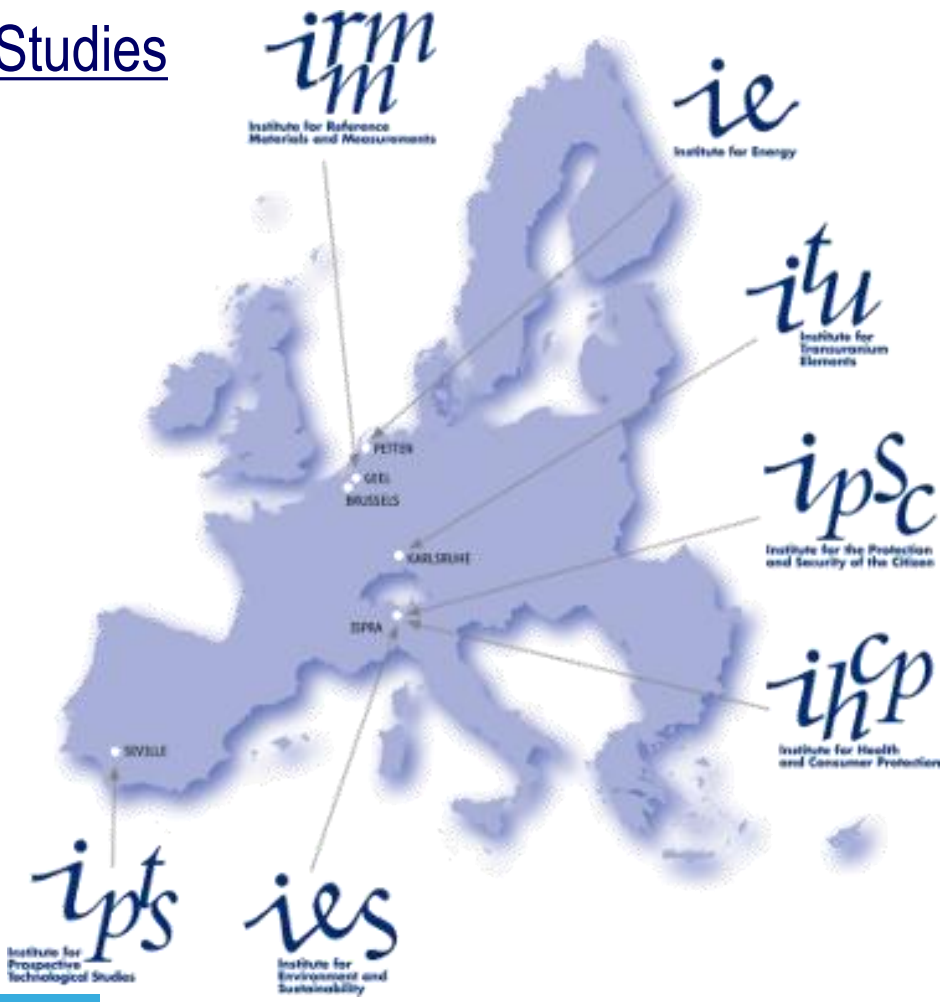

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Why do we speak about innovation collaboration?

- Synergy effects
- Balancing skill shortages
- But how to select the right partner?
- What benefits can I expect from such collaboration?

A framework for assessing innovation collaboration partner: the concepts

1. **Inventive performance:** What is the inventive mass and dynamics of a country's inventive performance?

2. **Technological specialization patterns:** What technology does a country specialize in? Are its technological capacities complementary?

3. **Openness to international collaboration:** Do a country's researches have a record of collaboration with their foreign counterparts?

4. **Economic potential of technology:** Are a country's inventions developed primarily in the domestic or international market?

A framework for assessing innovation collaboration partner: the indicators

1. **Inventive performance:**
   Fractional counting of patents by inventors from a country

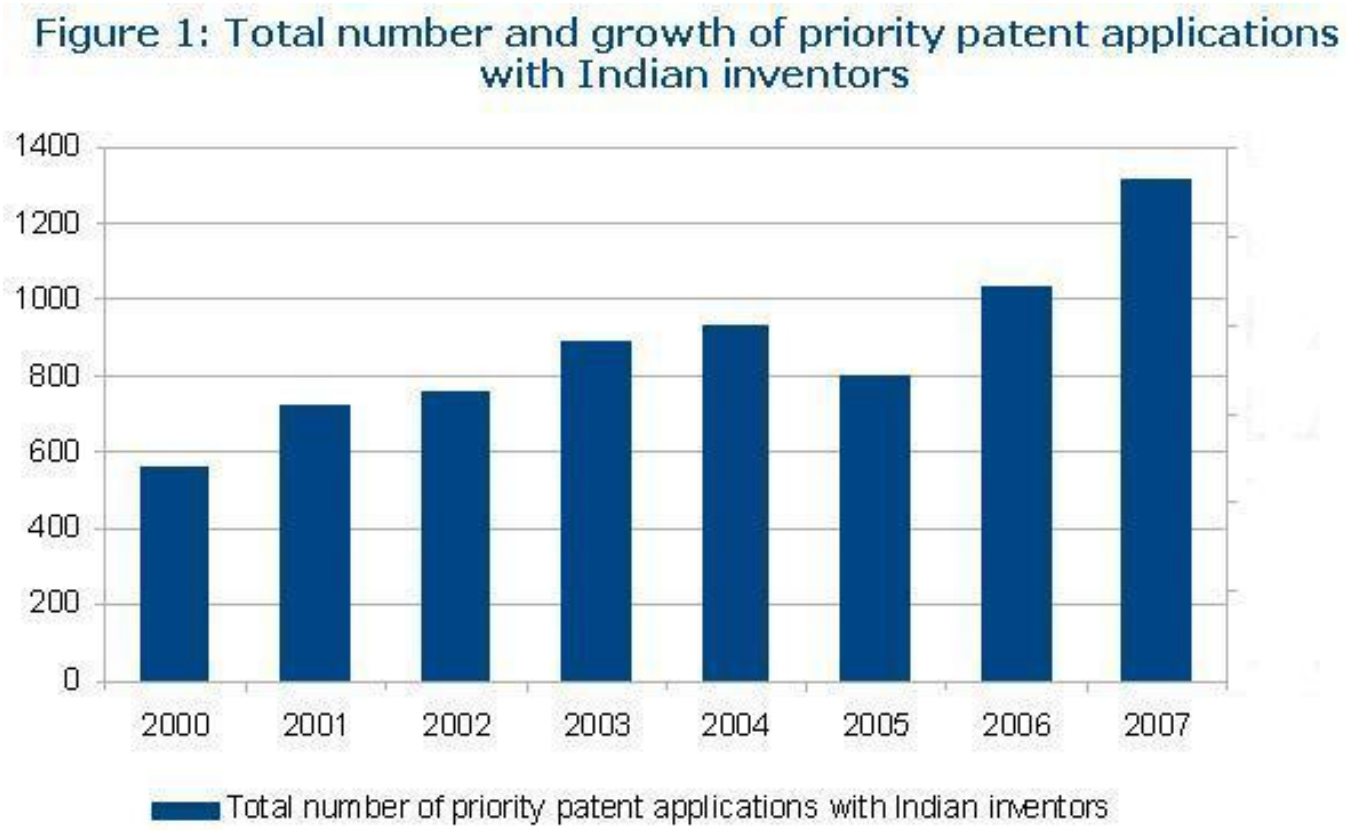
2. **Technological specialization patterns:**
   Shares of each technology field in the total number of patented inventions

3. **Openness to international collaboration:**
   Share of international co-inventions in the total number of a country's patent applications

4. **Economic potential of technology:**
   Share of patent applications filed to international patent offices in the total number of a country's patent applications

Now, let’s look at India…

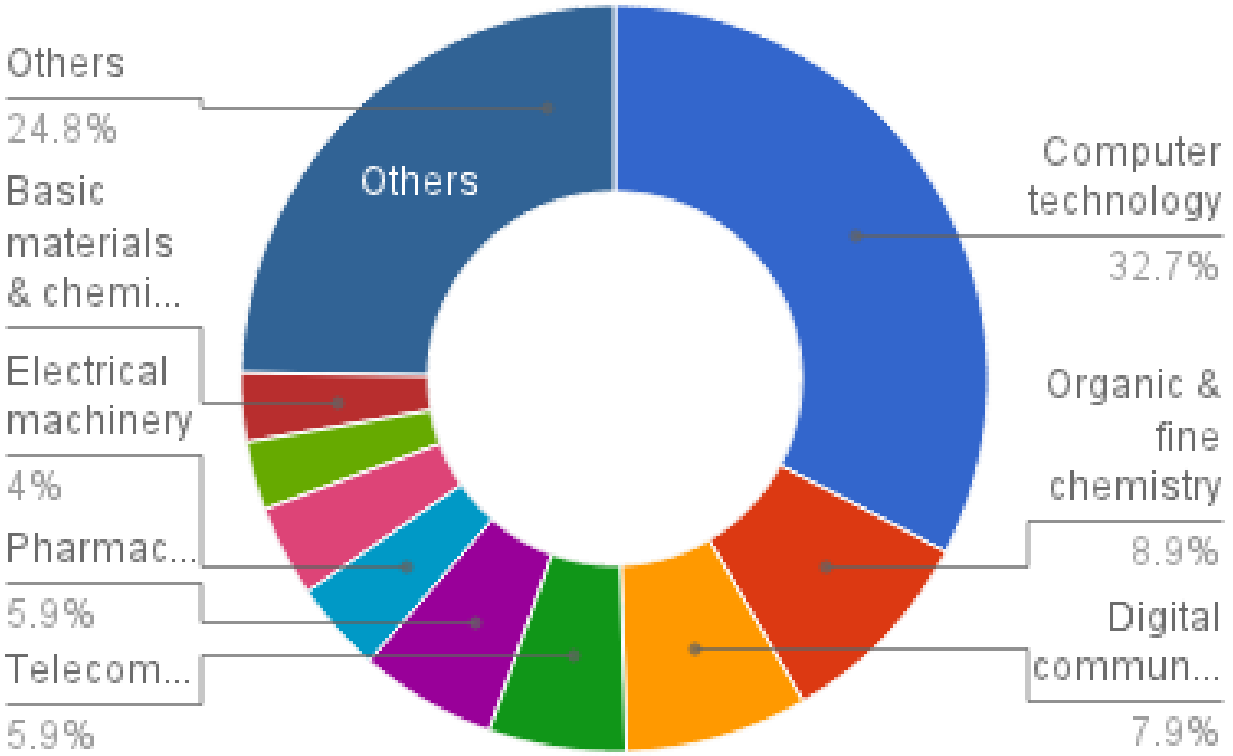
Inventive performance



Note: Priority patent applications including at least one Indian inventor. Own calculations using the inventor criterion based on PATSTAT Database, version 2010

Technological specialization patterns

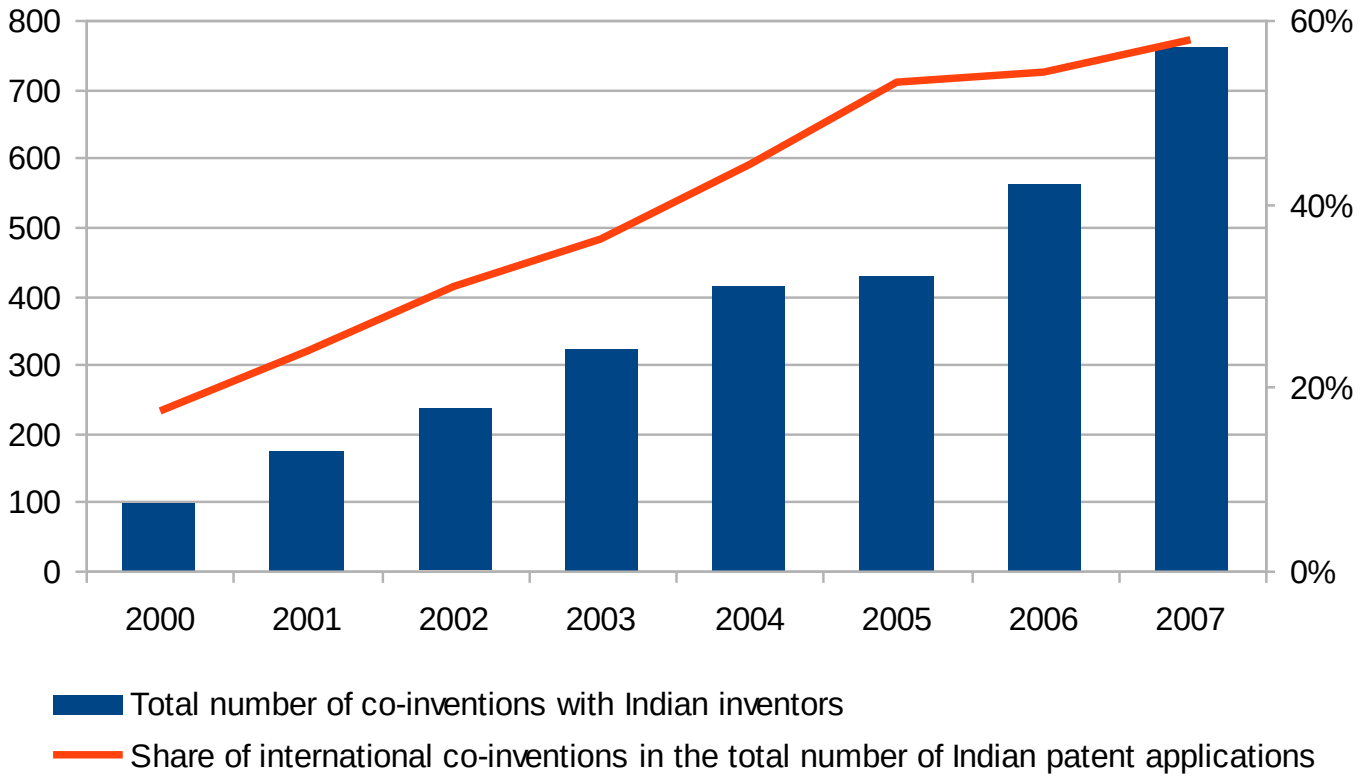
Figure 2: Indian patent applications by IPC technology field, 2000-2007



Note: Priority patent applications including at least one Indian inventor. Technology fields computed by fractional counting. Own calculations using the inventor criterion based on PATSTAT Database, version 2010

Openness to international collaboration

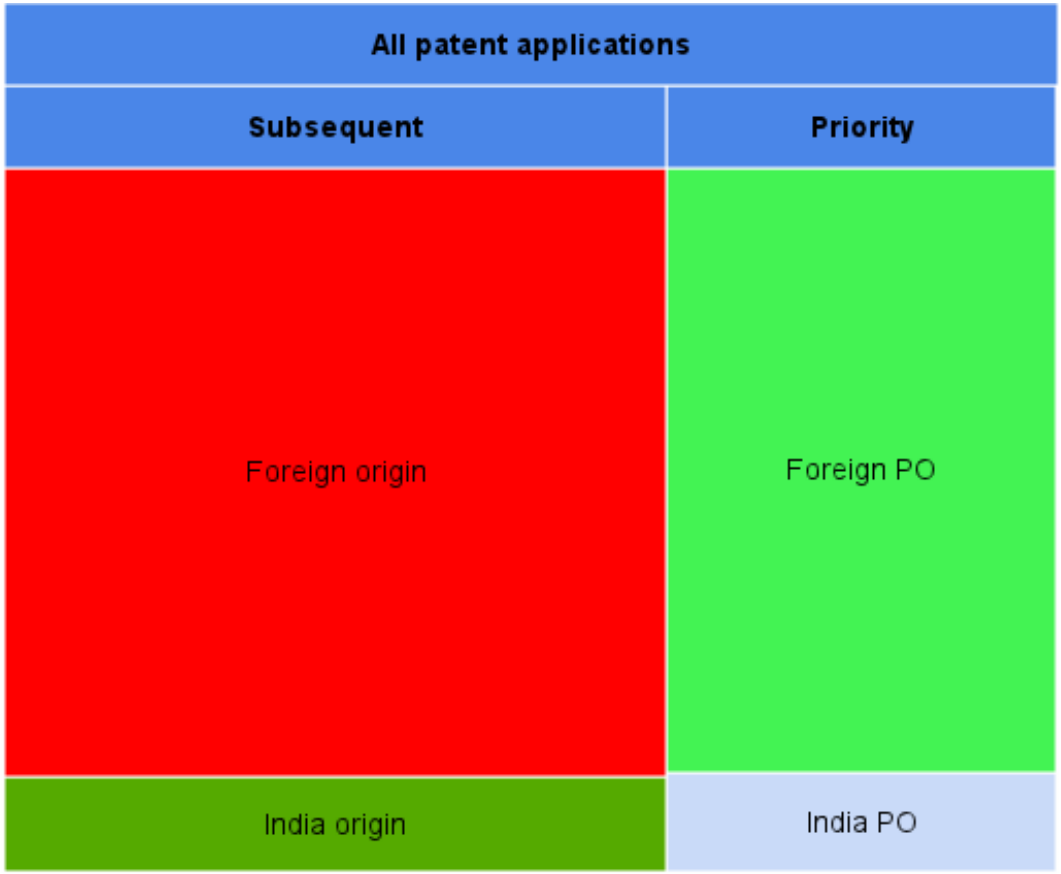
Figure 3: Total number and growth of co-inventions between Indian and non-Indian inventors



Note: Based on fractional counting of priority patent applications including inventors residing in India and at least one inventor residing outside of India. Own calculations using the inventor criterion based on PATSTAT Database, version 2010

Economic potential of technology

Figure 4: Patent applications by filing time and patent office, total number for 2000-2007



Note: Includes all patent applications including at least one inventor residing in India. Own calculations using the inventor criterion based on PATSTAT Database, version 2010

Results 1/2

The results of assessing India as an innovation collaboration partner

Assessment criteria	Result and description
Inventive performance	• Relatively low inventive performance. • Very high growth in inventive activity.
Technological specialization patterns	• High concentration in two technological fields, i.e. IT and pharmaceuticals. • Dynamic changes in the innovation activity composition. • Sharp increase of activity in such technological fields as nanotechnology. • Decline of activity in pharmaceuticals and biotechnology.

Results 2/2

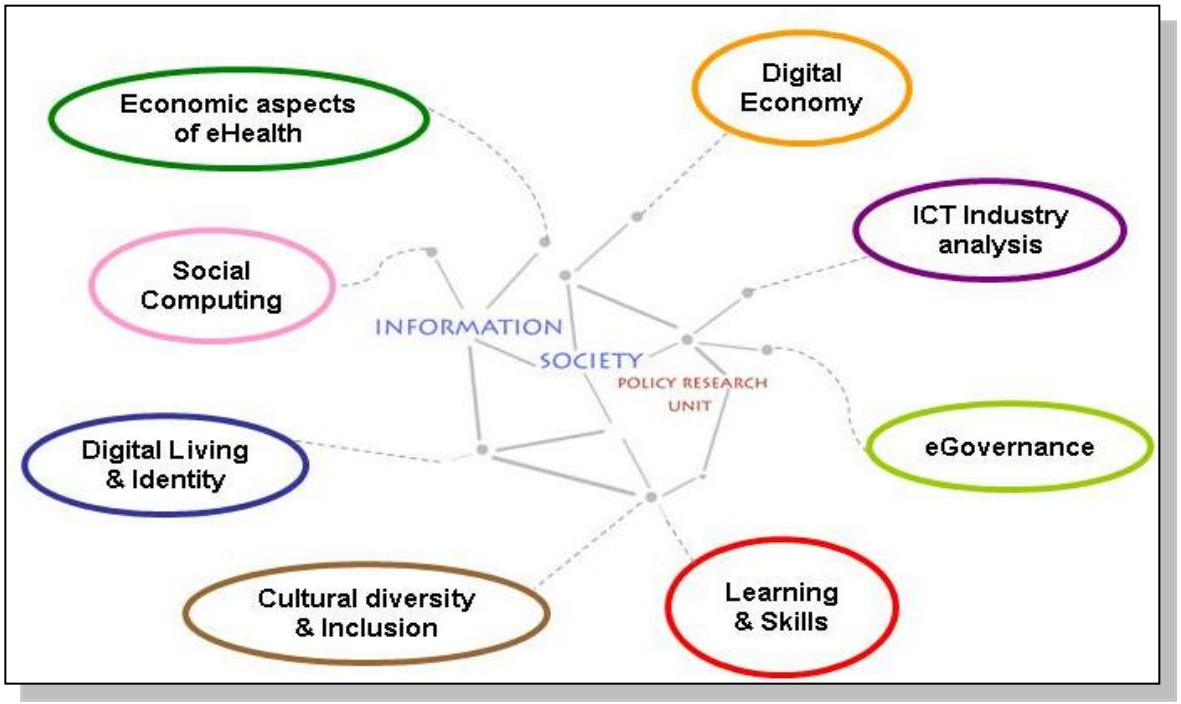
The results of assessing India as an innovation collaboration partner

Assessment criteria	Result and description
Openness to international innovation collaboration	• Extremely high level of international innovation collaboration. • Collaboration limited to few technological fields.
Economic potential of technology	• The overall number of patent applications submitted to foreign patent office is outstanding. • The majority of all priority patent applications are filed to the USPTO. • Only a small fraction of priority patent applications with Indian inventors are filed to the Indian patent office.

Conclusions

- **A reflection on and a synthetic view of a methodology for**
  - Innovation collaboration partner selection
  - The assessment of innovation collaboration benefits
- **Regarding India**
  - Taking stock of its innovative landscape
  - Putting it into international context
- **Further steps and improvements**
  - The value of patents
  - IPR environment

Thank you!



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