The role of patent information in innovation management

Results of a survey by the EPO
Does patent information support innovation?
The survey

Model of the innovation process

Identify innovators
- Business / technology platforms
- no IP experts!

1. small group, qualitative answers
   → list of questions
2. larger group, quantitative evaluation

supported by market research experts
The innovation process

Fundamental research | Applied research | Development and prototyping | Commercialisation
Participation in innovation process

Respondents who did not indicate one of the four innovation process phases were excluded from the survey (20% of total sample).

Commercialisation 15%
Development/prototyping 43%
Fundamental research 14%
Applied research 28%

n=265; Q1: In which phase of the innovation process are you most active in your work? Base: Actors in innovation process.
Relevance of information categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Technical information</th>
<th>Business information</th>
<th>Legal information</th>
<th>Don't know/no answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>88%</td>
<td>65%</td>
<td>65%</td>
<td>1%</td>
</tr>
<tr>
<td>Fundamental research</td>
<td>79%</td>
<td>55%</td>
<td>50%</td>
<td>3%</td>
</tr>
<tr>
<td>Applied research</td>
<td>88%</td>
<td>71%</td>
<td>71%</td>
<td>1%</td>
</tr>
<tr>
<td>Prototyping</td>
<td>95%</td>
<td>58%</td>
<td>62%</td>
<td>1%</td>
</tr>
<tr>
<td>Commercialisation</td>
<td>77%</td>
<td>85%</td>
<td>77%</td>
<td>1%</td>
</tr>
</tbody>
</table>

n=265; Q3: For your work, which of the following categories of information are relevant? (multiple answers possible); Base: Actors in innovation process.
### Sources of technical information

<table>
<thead>
<tr>
<th>Total</th>
<th>Internet sites</th>
<th>Patents</th>
<th>Magazines/journals</th>
<th>Personal contacts</th>
<th>Databases</th>
<th>Expositions/conferences</th>
<th>Books</th>
<th>Professional associations</th>
<th>Libraries</th>
<th>Forums</th>
<th>Blogs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>82%</td>
<td>72%</td>
<td>64%</td>
<td>62%</td>
<td>57%</td>
<td>52%</td>
<td>52%</td>
<td>31%</td>
<td>25%</td>
<td>17%</td>
<td>15%</td>
</tr>
<tr>
<td>Fundamental research (n=30)</td>
<td>73%</td>
<td>33%</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>40%</td>
<td>50%</td>
<td>37%</td>
<td>27%</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>Applied research (n=66)</td>
<td>79%</td>
<td>77%</td>
<td>68%</td>
<td>65%</td>
<td>64%</td>
<td>50%</td>
<td>56%</td>
<td>35%</td>
<td>32%</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Prototyping (n=107)</td>
<td>84%</td>
<td>80%</td>
<td>65%</td>
<td>62%</td>
<td>56%</td>
<td>55%</td>
<td>52%</td>
<td>29%</td>
<td>21%</td>
<td>21%</td>
<td>13%</td>
</tr>
<tr>
<td>Commercialisation (n=30)</td>
<td>90%</td>
<td>70%</td>
<td>53%</td>
<td>57%</td>
<td>43%</td>
<td>53%</td>
<td>40%</td>
<td>27%</td>
<td>27%</td>
<td>17%</td>
<td></td>
</tr>
</tbody>
</table>

Ø number of information sources: 5.3

n=233; Q3.1: You just mentioned that technical information is relevant for your work. What source(s) of information do you currently use for technical information? (multiple answers possible); Base: Actors in innovation process.
Users vs. non-users of patent information as information source

Are patents used as a source of information in the innovation process?

Yes
70%

No
30%

n=263; Q3.1/Q3.2/Q3.3: You just mentioned that technical/business/legal information is relevant for your work. What source(s) of information do you currently use for technical/business/legal information? (multiple answers possible); Base: Actors in innovation process.
In the different phases

<table>
<thead>
<tr>
<th>Phase</th>
<th>Use PI</th>
<th>Don't use PI</th>
</tr>
</thead>
<tbody>
<tr>
<td>fundamental research</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>applied research</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>development/prototyping</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>commercialisation</td>
<td>67%</td>
<td>33%</td>
</tr>
</tbody>
</table>
Validation survey among academic innovation actors

- 75.8% Academic journals
- 57.6% Technical publications
- 36.4% Patents
- 31.8% Blogs and websites
- 28.8% Forums
- 16.7% Conferences and meetings

Non-representative sample (n=66) at ISPIM conference
Sources of patent information

For patent information used as a source of information, did the respondent mention a specific source?
(n=184)

- No: 31%
- Yes: 69%

Which sources did the respondents mention?*
(n=127)

- EPO (Espacenet etc.): 75%
- DPMA: 30%
- USPTO: 21%
- WIPO: 17%
- Google: 15%
- Patbase: 14%
- NPO: 13%
- Questel: 13%
- Thomson Innovation: 9%

*Results > 5% displayed

Q4: You just mentioned that you use patents as a source of information. Which specific source(s) do you use? (multiple answers possible)
Base: Users of patents as source of information / Respondents who mentioned a source.
### Importance of patent information as source of information

<table>
<thead>
<tr>
<th></th>
<th>1 – Not important</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 – Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>1%</td>
<td>7%</td>
<td>20%</td>
<td>23%</td>
<td>49%</td>
</tr>
<tr>
<td><strong>Fundamental research</strong> (n=14)</td>
<td>7%</td>
<td>21%</td>
<td>14%</td>
<td>57%</td>
<td></td>
</tr>
<tr>
<td><strong>Applied research</strong> (n=57)</td>
<td>4%</td>
<td>23%</td>
<td>21%</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td><strong>Prototyping</strong> (n=87)</td>
<td>9%</td>
<td>18%</td>
<td>26%</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td><strong>Commercialisation</strong> (n=26)</td>
<td>8%</td>
<td>19%</td>
<td>23%</td>
<td>50%</td>
<td></td>
</tr>
</tbody>
</table>

*Attention: small base
n=184; Q7: In comparison to other sources of information you said you use, how important are patents as a source of information for your innovation work?
Base: Users of patents as source of information.
Non-PI users: Past usage of patent information

Have you used patent information in the past?

- Yes: 19%
- No: 81%

n=79; Q9: You did not indicate “patents” as a source of information you currently use. Have you used patents in the past? Base: Non-users of patents as source of information.
Barriers for patent information usage

Main reason for no longer/never using patent information as information source:

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent information is no longer/not necessary for my work</td>
<td>32%</td>
</tr>
<tr>
<td>I don't know where to find patent information</td>
<td>15%</td>
</tr>
<tr>
<td>Patent information is too complex</td>
<td>14%</td>
</tr>
<tr>
<td>Our IP department deals with it</td>
<td>8%</td>
</tr>
<tr>
<td>In my sector, patent information gets outdated fast</td>
<td>6%</td>
</tr>
<tr>
<td>Patent information is too expensive</td>
<td>5%</td>
</tr>
<tr>
<td>Our patent attorney deals with it</td>
<td>4%</td>
</tr>
<tr>
<td>Other reasons</td>
<td>9%</td>
</tr>
<tr>
<td>Other sources are more important</td>
<td>1%</td>
</tr>
<tr>
<td>Don't know/no answer</td>
<td>6%</td>
</tr>
</tbody>
</table>

Other reasons mentioned:
- “In comparison to other information sources, patents are not very efficient. It takes a lot of work to filter information efficiently.”
- “My research field doesn’t deal with patents.”
- “Patent info does not explain what builds value for customers.”

Other sources mentioned:
- Internet
- Legal information / laws
- Technology monitoring
- “Personal contacts, exhibitions / conferences”

n=79; Q10/Q11: What is your main reason for not/no longer using patents as a source of information? Base: Non-users of patents as source of information.
Work areas of the respondents

Research

Product management development

Business development

R & D

Technology transfer

Patent-/IP-management

Patent attorney

Patent/IP-consulting

Sales/Finance/HR

Innovation management

n=265; Q2: Please describe in your own words in a few sentences the work that you do.; Base: Actors in innovation process.
Enterprise size / information sources

Q3.1/Q3.2/Q3.3: You just mentioned that technical/business/legal information is relevant for your work. What source(s) of information do you currently use for technical/business/legal information? (multiple answers possible); Base: Actors in the innovation process; significant positive results mentioned.
Main findings

1. No 30%  Yes 70%

2. 72%: PI = (very) important

3. development/prototyping 23% 77%
   applied research 24% 76%
   fundamental research 63% 37%
Other findings

Why? Where? How?

> 250 Patents

1 – 10 Forums Blogs
What can we all do?

- Increase awareness (e.g. in-house, SMEs, academia)
- Support multipliers & networks (PATLIB centres, TTOs, ...)
- Improve / simplify tools & services
- Maintain data (complete, correct, up to date)
- Make data more easily accessible (linked, open)
Need more information?

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epo.org/searching-for-patents

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