The aim of the discussion round was to provide an opportunity for the participants, the EPO and the chairman to share experiences and views related to patent evaluation tools. The group also discussed barriers to the use of patent evaluation tools and possible ways that the EPO could support stakeholders. As the discussion round was part of the EPO Patent Information Conference, the exchange of views concentrated on tools using patent information for the scoring of patents.

Patent evaluation tools (also known as calculators, platforms, applications, modules) are software-based solutions used to score, rank or provide a monetary value to patents or patent portfolios. Tools require input data (patent information or other) and implement algorithms or calculations to provide results. Results are scores, ranks and/or monetary values for patents. Depending on the tool these are presented in outputs such as reports or with visualisations. Evaluation tools can range from a simple downloadable spreadsheet to complex web-based solutions incorporated into patent analytics platforms.

The chairman presented selected results of the recently completed EPO market research on patent evaluation tools. The market research involved the analysis and comparison of available patent (e)valuation tools. Altogether 28 patent (e)valuation tools were identified with 19 tools having a sufficient amount of information for analysis. Further to this, eight different tools were tested within three patent evaluation case studies.

The market research considered the following features and characteristics when analysing the identified tools:

- (E)valuation approaches and methods used in the tools (including patent information value indicators if used)
- Tool features
- Transparency of the tool, algorithms and calculations
- Complexity of the tool for the users
- Purpose of using tool
- Target beneficiaries and users of the tool
- Input data used and data sources required by the tool
- Results and outputs of the tool
- Software environment (web based or downloadable)
- User support provided
- Access to tool and tool pricing
The chairman opened the discussion and the participants discussed experiences with patent evaluation tools and barriers to their use.

Approximately half of the participants had direct experience with using patent evaluation tools and a number used tools on a monthly basis.

The group discussed the following topics related to evaluation tools:

1. **Tool/methodology categorisation**: There is a broad range of tools available for evaluating patents, characterised by the input data they require and the results they give. Most prominent are tools which give a score or a rank and use patent information indicators to evaluate a patent. Some available tools use additional data from the proprietary databases of the individual tool providers (for example data related to infringement cases or actual transactions involving patents). There are also a small number of patent information based tools that provide a monetary value for a patent or portfolio.

2. **Purpose of using evaluation tools**: The user's choice of evaluation tool depends greatly on why the user is evaluating the patent. The participants at the discussion round noted that it is important to make sure the "Why" question is asked as there are many techniques for evaluating patents / patent portfolios, but the methods and results depend greatly on the reason for evaluation. For example, certain tools may be more suitable for evaluating patents for licensing and certain tools may be better for portfolio pruning purposes. Additional purposes for using patent evaluation tools may be in mergers and acquisitions, checking interesting partners' patents, determining a company's own competitiveness, litigation cases, cross licensing etc. Tools are also useful for competitor monitoring, establishing patent landscapes, benchmarking of patent portfolios, assessment of patent (portfolio) strengths, as well as market, competitor and technology analysis.

   The participants agreed that different value indicators/methods are needed depending on purpose of evaluation and user.

3. **Target beneficiaries and target users**: The participants agreed that the final end-user of evaluation tool results is management. A manager, however is unlikely to be the person that actually uses the tool. Management require accuracy but low complexity. There may be a significant role for intermediaries that specialise in using tools and who can effectively translate results to management.

4. **Transparency of tools**: The participants of the discussion round agreed that transparency of methodology and input data is important. There is a trust issue with many patent evaluation tools as they are "black box", they do not specify the inputs and algorithms used in the tool. However, the participants agreed that while transparency is important to build trust, once this trust is gained the user does not need to know the calculations in detail. He/she should be able to rely on the tool.
5. **Tool complexity:** The participants agreed that low complexity in general is important for tool users. User customisation of tools and algorithms is useful for power users, but this can also cause unnecessary complexity.

6. **Software environment:** The participants agreed that data privacy and safety is important. It was noted that web and cloud-based evaluation tools are accepted by the community today. Both web-based and downloadable tools may be subject to privacy and data safety concerns.

The discussion round focussed on the current barriers for using patent evaluation tools. The following barriers were discussed:

1. **Effort to use patent evaluation tools:** Some participants noted that in many cases there is "too much effort required to get a good evaluation" as tools require input from several people and their use is time consuming. There may be a significant demand for expert tool users.

2. **Mixed views on the usefulness of monetary results:** Participants stated that many stakeholders don't believe tools providing monetary values are useful. Their view is that calculating an actual money value does not make sense because this value "depends too much on circumstances and negotiations" (for patent transfer etc). At the same time, participants noted that many users are demanding tools which can provide accurate monetary results.

3. **Scores/ranking must have a context:** Participants agreed that patent scores by themselves are rarely enough for management decision-making. A context for the evaluation is often missing. This could mean a better overall analysis of the patent situation or supplementary analysis by experts in the patent owner's organisation. For example, some participants indicated that they had experience in using the results of the tools within their organisations. It was sometimes the case that experts within the organisation disagreed with the evaluation results leading to trust issues regarding the tool results.

4. **Difficulty in convincing management about tool potential and results:** Participants noted that management understanding and acceptance of tool results is a significant barrier to evaluation tool use.

5. **Evaluation of non-patented technologies or newly patented technologies:** Many participants agreed that non-patented or brand-new patent applications are difficult or impossible to evaluate using patent-information-based tools, as data is not (yet) available in the patent databases. This may be an issue for some users.

The group discussed in which ways the EPO and other organisations could support users and providers of patent evaluation tools.
1. **Raising awareness of patent evaluation tools at the management level**: Raising awareness of management was indicated as a key step for supporting the use of patent evaluation tools.

2. **Training tool users – mainly for business aspects**: The need for further training of tool users and analysts in patent evaluation and business aspects was also noted by participants.

3. **Mixing patent information and non-patent information value indicators within tools**: The participants noted a demand for mixing "objective" patent information value indicators with indicators related to the development and commercialisation environment of a patent.

4. **Clear transparent evaluation tools and parameters**: Discussion round participants expect increasingly clear and transparent tools as a trend for the future.

5. **High quality, valid data**: Participants noted that there is a clear demand for clean, high quality data. This need is not exclusively in the area of patent evaluation tools but is more general in patent information circles.

Peter Kaldos, Chairman, Discussion round 8

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