Sander De Vrieze started with the presentation of the objectives of the discussion round and provided a quick overview of the answers given by the participants in the questionnaires regarding the tools they use for monitoring, the time they generally address for monitoring and the purposes for monitoring.

The aim of the discussion round was to address the following points:

- to identify the best practices and challenges
- to find answers to the identified challenges
- to suggest implementations and identify who should implement them

The participants used all possible available tools for monitoring, some also used a system developed in-house.

There was a large diversity of participants' experience, ranging from 100% of their time to one or two days in a month, and from ten minutes to two days per assignment.

The major purposes of monitoring were to be regularly updated on competitors' activities, specific technical fields and legal status with regards to right timing for opposition or nullification procedures.

After this short overview, Sander De Vrieze presented the major challenges mentioned by the participants in the questionnaire:

- Too many hits: increasing amount of data, especially Asian documents, sometimes a lot which are not relevant.
- Language barrier: machine translation is not optimal yet.
- Patent uneducated recipients (internal or external clients): no certainty that they understand all the information received.

The participants were then given some time to discuss possible additional challenges. The results of the discussion were linked to the major challenges already mentioned, but with deeper insight:
- Too many hits / Timeliness:
  - Classifications not specific enough (issues for example for cross-technologies)
  - Too many hits, but wish of completeness (how to be sure I have it all)
  - How to provide relevant results to the right person
  - Formatting / visualisation aspect to make the results better understandable
  - Management of a multitude of alerts
- Patent uneducated recipients:
  - How to enable in-house colleagues to comment / rate on the results (collaboration, discussion)
  - Communication
  - It is the job/challenge of the patent information specialist to make sure that uneducated recipients understand it

In a third step, Sander De Vrieze reminded of the solutions proposed by participants in the questionnaire and gave some time to the participants to discuss other possible solutions. The results were the following:

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Solution</th>
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| Too many hits / timeliness       | • Use of artificial intelligence, learning machines, semantics and aggregation systems as well as convenient filtering and visualisation systems  
  • Improve NPO data quality  
  • Offer better classification |
| Language barrier                 | Use artificial intelligence, improved automatic machine translation  
  (comment from Roland Feinäugle: The EPO has recently implemented with Google a neural network machine translation technology in the Patent Translate tool) |
| Patent uneducated recipients     | • In-house solutions:  
  o Take the perspective of the client, be precise and complete  
  o Adapt to the client  
  o Organise internal education and awareness activities  
  • Tool/platform allowing:  
  o Collaborative monitoring (possible subscription to different monitoring profiles)  
  o Collaborative reporting to integrate multiple perspectives (team effort/connectivity)  
  o Customisable reporting allowing to report different information streams to different user profiles (e.g. research, sales, decision makers) |
The final discussion concerned **who should implement the solutions** proposed. The results coming out of the discussion were the following:

### Challenges, solutions, implementation by

<table>
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<tr>
<th></th>
<th>Vendors</th>
<th>R/NPOs</th>
<th>Industries</th>
<th>Int./ext. clients</th>
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</table>
| **Too many hits / Timeliness** | Relevant results  
- AI  
- filters  
- relevant visualisation | Consultation |            |                   |
|                      | Classification  
- Data quality | Consultation |            |                   |
| **Language barrier**  | Improved automated machine translation (AI) | Consultation |            |                   |
| **Uneducated recipients** | Collaborative monitoring and reporting tool | Consultation |            | **In-house solutions** |

At the end, the participants mentioned that an ideal solution would be the building-up of a consortium gathering all stakeholders (vendors, national offices and users) to develop a one-stop shop for the user, which would be an automated, intelligent, customisable and interactive monitoring system.

Sander De Vrieze, Chairman, Discussion round 4  
November 2017