

Merger deals increasingly scrutinized using patent analysis

- When evaluating mergers, patent analysis can reveal the potential impact on innovation competition
- The Dow-DuPont merger approval decision was largely influenced by patent portfolio analysis relying on evaluation metrics developed by PatentSight
- The European Commission relies on qualitative patent analysis when evaluating merger deals

***Bonn, Germany, February 2018.* Patent metrics have increasingly been used to assess the innovative competitiveness of technology-oriented firms in recent years. The European Commission (EC) was no different when evaluating the Dow/DuPont merger. Interestingly enough, not only did the EC use qualitative patent analysis, they used it to identify specific Dow and DuPont business segments to be divested before any merger approval would be entertained. By using PatentSight's Technology Relevance™, the EC was able to determine, with unprecedented precision, which products and business segments constituted a high potential in stifling innovation competition within certain markets.**

Innovation is the EU's new M&A battleground. Innovation has become "so important" for future competition "because the viability of the product line depends on your ability to keep on innovating," said Margrethe Vestager, the EU's antitrust chief during a press conference on March, 27th 2017 in Brussels¹. Patent analysis is playing an ever-increasing role in objectively measuring the innovation of portfolios and predicting the potential impact of mergers on innovation competition.

Ensuring competition and innovation

The Commission's aim was to examine whether a merger of Dow and DuPont would have reduced competition on price and deprive consumers of the benefit of new and improved products. Commissioner Margrethe Vestager, continued: "Pesticides are products that matter – to farmers, consumers and the environment. We need effective competition in this sector so companies are pushed to develop products that are ever safer for people and better for the environment."

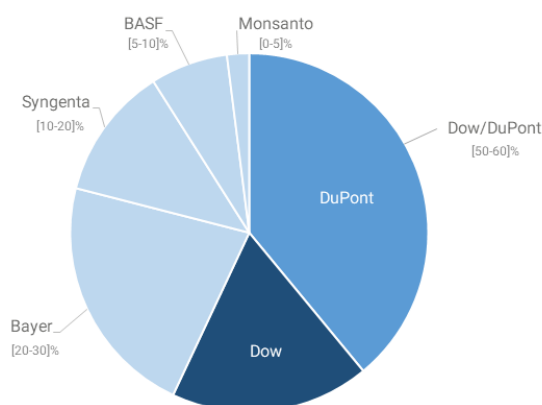
European Commission thanks PatentSight for their technical support during one of the world's largest mergers

After a thorough analysis of the innovation landscape using Patent Sight’s platform and further market analysis, the Dow DuPont merger was approved by the EU Commission on the condition that DuPont divest most of its global pesticide business, including its corresponding R&D organization. This would enable the buyer of these divested assets to become a viable R&D intensive competitor. FMC, a US-based chemicals company, eventually acquired these assets and will now become the fifth largest crop protection company in the world. “We are grateful to PatentSight for their technical support during the Dow/DuPont investigation...” reported the European Commission in an article describing the case which was recently published in the Review of Industrial Organization.ⁱⁱ

European Commission confirms: considering patent quality is key

Given the significant heterogeneity in patent quality, the Commission recognized that a firms’ technological strength would not be well reflected in simple patent counts alone. “It is a common practice in the economic literature to use, for this purpose, citation-based measures.” summarizes the Commission.ⁱⁱⁱ To address this concern, they used Patent Sight’s Technology Relevance™ and Patent Asset Index™ measures in order to assess patent quality and technological influence. Technology Relevance™ is based on the number of worldwide citations that are received from later patents, adjusted for age, patent office practices and technology fields. The Patent Asset Index™ is comprised of both Technology Relevance™ and Market Coverage™, the global market size protected by active patents and pending applications on a certain invention.

Findings of the EU Commission based on PatentSight’s metrics



Percentage shares among top 10% most valuable crop protection patents, excluding Japanese and “mixture” patents

(Source: European Commission investigations, Case M.7932 – Dow/DuPont)

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Key findings revealed by patent analysis

The Commission carried out an analysis of patent data, which confirmed:

- both Dow and DuPont were particularly strong innovators based on external and total citations.
- the merging parties are and have been close innovation competitors for some time.
- Dow and DuPont had a significant combined patent share of new active ingredients for crop protection in selective herbicides and insecticides.
- Concentration indexes (e.g. HHI) based on the analysis had shown a high level of concentration prior to the merger and significantly increased as a result of merging these entities if no divestitures were considered.

PatentSight's Patent Asset Index™ – the industry standard

Since 2009, leading technology companies have been using PatentSight's Patent Asset Index™ as an indicator of innovative strength and long-term competitiveness. In 2009, Dow Chemical's CTO recognized "The Patent Asset Index provides an accurate view of the impact and efficiency of an enterprise's investment in innovation"^{iv}. BASF's recent annual report highlights "For the eighth time in succession, we headed the rankings in the Patent Asset Index in 2016"^{2vi}.

Today, seven of the top ten global chemical companies and many technology leaders from other industries use PatentSight. When asked how to rate the quality of patents, Beat Weibel, Head of Intellectual Property at Siemens, explained: "That's the job of independent companies such as PatentSight. They can rate an entire portfolio on the basis of fixed criteria such as technological relevance, geographic market coverage, and frequency of citations."^{3vii}.

About PatentSight

PatentSight was founded by Nils Omland and Prof. Dr. Holger Ernst in 2009 as a spin-off from the WHU – Otto-Beisheim School of Management. The pioneering thought leadership of PatentSight's founding team is expressed in ground-breaking, rewarded and highly-cited scientific publications. Today, PatentSight's team consists of more than 40 highly educated individuals specializing in fields like Business Strategy, Patent Law, Patent Data, Computer Science, Web Design and Quality Assurance. PatentSight's software solution is based on carefully cleaned and harmonized data and state-of-the-art scientific methods. It provides reliable and relevant insights into the patent landscape for decision makers in the fields of benchmarking, R&D strategy, trends, M&A, licensing and portfolio optimization.

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Sources:

ⁱ EU Commission Press Conference, Brussels, March 27th, 2017; http://europa.eu/rapid/press-release_IP-17-772_en.htm, <https://ec.europa.eu/avservices/video/player.cfm?ref=I136120>

ⁱⁱ Buehler, B., Coublucq, D., Hariton, C. et al. Review of Industrial Organization (2017) 51: 397. <https://doi.org/10.1007/s11151-017-9592-x>

ⁱⁱⁱ see ii

^{iv} Merger Procedure Regulation (EC) 139/2004,

http://ec.europa.eu/competition/mergers/cases/decisions/m7932_13668_3.pdf

^v <http://www.chemie.de/news/107833/basf-und-dow-begruessen-neuen-patent-asset-index.html>

^{vi} <http://bericht.basf.com/2016/de/konzernlagebericht/innovation.html>

^{vii} <https://www.siemens.com/innovation/de/home/pictures-of-the-future/forschung-und-management/innovationen-interview-weibel.html>