



AbbVie's purchase of Allergan expands patent scope

AbbVie's \$63 billion bid for Allergan has just received final approval from the European Commission and is now awaiting word from the US Federal Trade Commission (FTC), which is still reviewing the pending transaction. The tie-up, as covered by *IAM*, has been described as a short-term solution for AbbVie which is preparing for the loss of exclusivity of its key brand Humira in 2023.

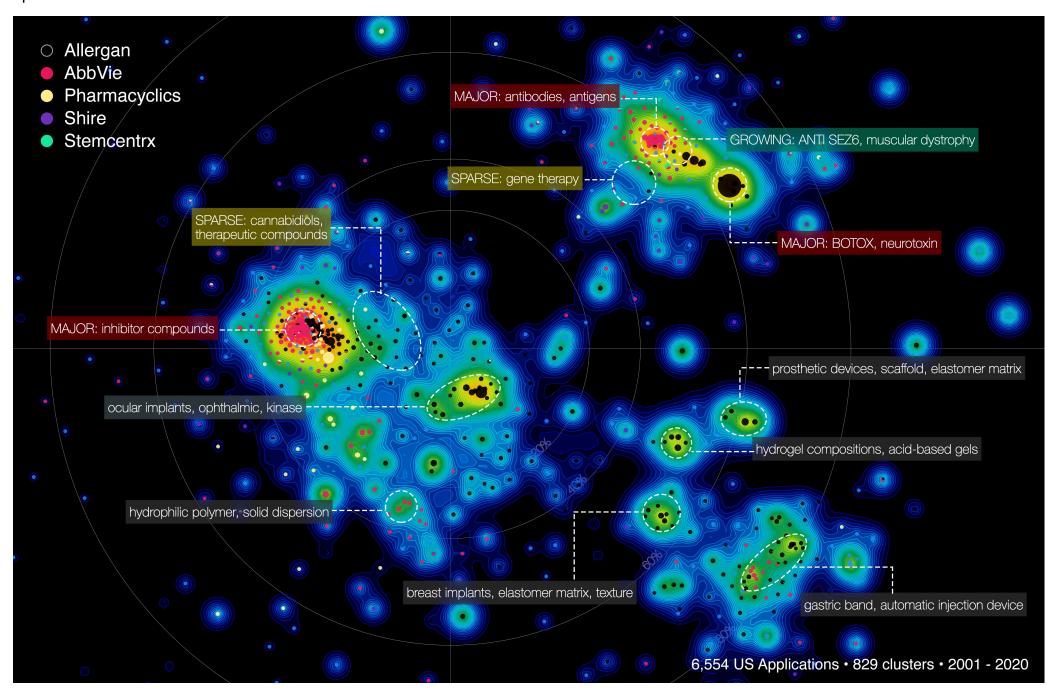
The buyout was the second highest value biopharma M&A deal in 2019. Should the FTC give the all clear, the new company will be the fourth biggest player in the industry. However, AbbVie does not have the greatest track record with acquisitions and a patent deep-dive reveals the extent to which the deal was made for profit rather than pipeline.

Breakdown

AbbVie's acquisition of Allergan falls outside the norm of deal-making within the sector. Most companies of a similar nature are focusing on specialisation and building mass in critical areas when making purchases. Notably, AbbVie's most valuable products are in the fields of anti-rheumatics and leukaemia/lymphoma therapy, whereas Allergan focuses on medical aesthetics.

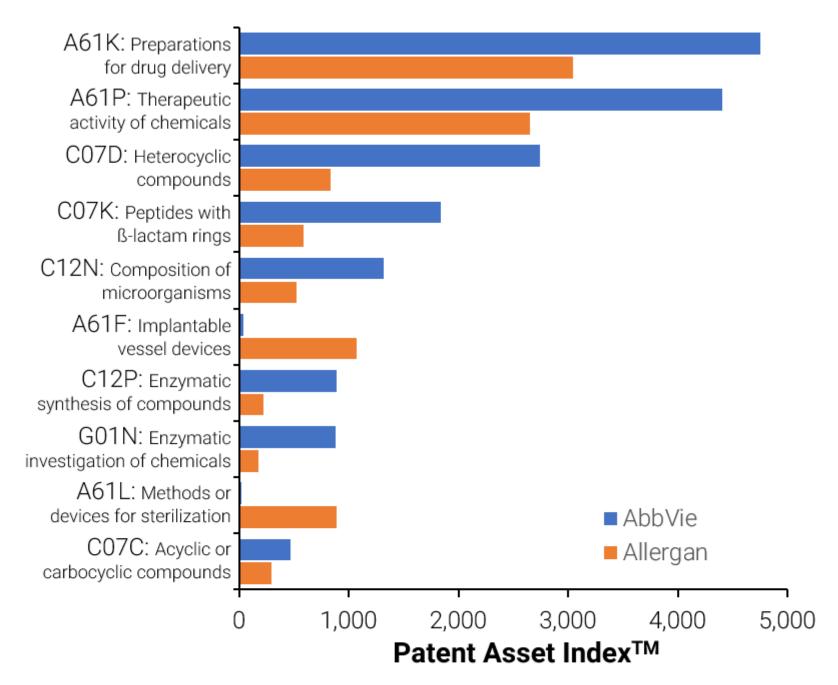
<u>Valuenex</u> conducted an analysis of the patent landscapes of AbbVie's prospective buys since 2014 to gain insight into any trends or strategies. The graph below shows that the company's key areas are inhibitor compounds and antibodies. Their filings in these regions have increased over the period studied, while it has not innovated significantly in other areas.

Pharmacyclics, which is arguably AbbVie's only successful purchase, has some holdings around inhibitor compounds. Allergan also has filings close to the inhibitor compounds space, as well as some around antibodies. Overall, though, it covers a more diverse ranges and has more specialisations.



Source: Valuenex; Note: No data was available for Mavupharma. Any joint filings between AbbVie and Abbot Laboratories were recorded under AbbVie for the purpose of this analysis. Shire was included in this analysis although the deal was ultimately abandoned. See full size image here.

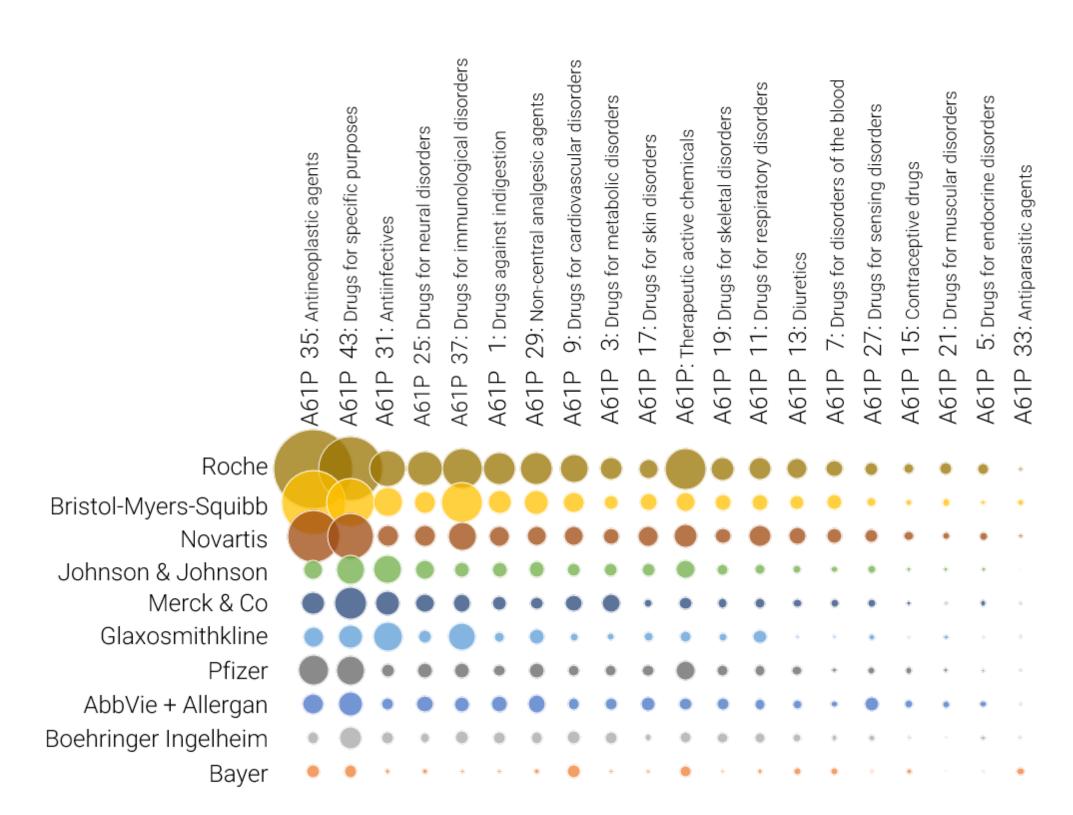
"Looking more closely at the AbbVie and Allergan portfolios, there are some technological areas where AbbVie is stronger than Allergan, such as enzymatic synthesis and investigation, and some areas where Allergan is stronger than AbbVie, such as blood vessel implants and sterilization," says PatentSight analyst William Mansfield (see graph below). However, there is no single area where combining the AbbVie and Allergan portfolios would create a dominant player. But the tie-up does create a more competitive business to challenge some of the larger entities.



Active portfolios of AbbVie and Allergan, with top IPC subclasses by Patent Asset Index™ as of 27th February 2020. Source: PatentSight Business Intelligence Platform www.patentsight.com

Source: PatentSight

A more in-depth analysis of IPC code A61P reveals areas of relative strength for the combined company. A61P 17, which covers drugs for skin disorders, and A61P 27, which relates to drugs for sensing disorders, stand out (see graph below).



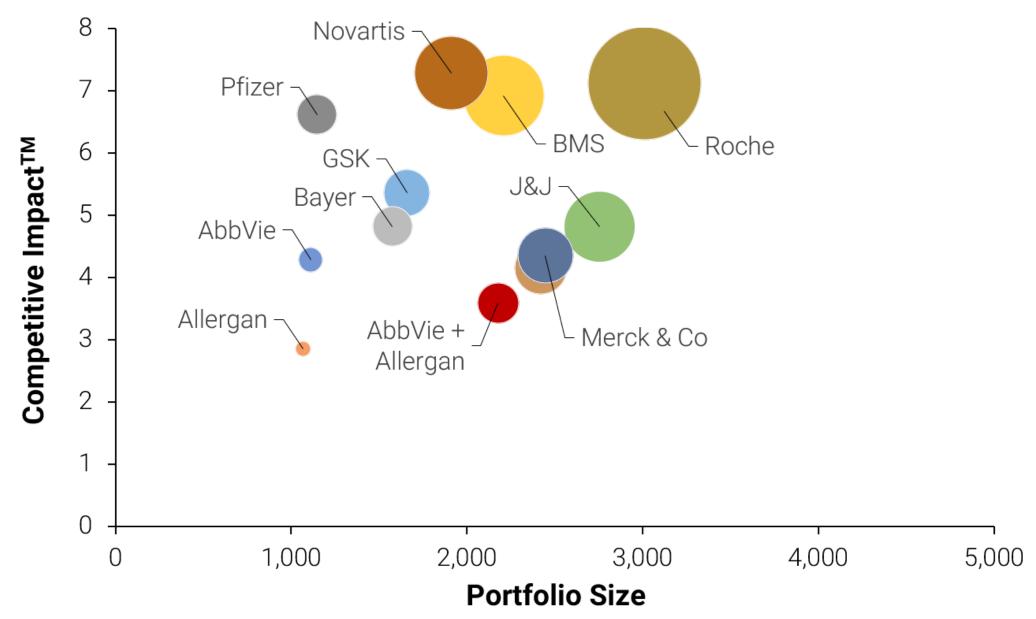
Bubble Area: Patent Asset Index™

Active portfolio's of top 10 owners in the IPC subclass A61P with top IPCs by Patent Asset Index™ as of 27th February 2020. Source: PatentSight Business Intelligence Platform www.patentsight.com

The key technologies for AbbVie and Allergan are classified under IPC A61K and A61P, which are also the main classifications for medical science. On their own, the two companies do not feature as one of the top 10 owners in the field and have much smaller portfolios than Roche, Johnson & Johnson and Bristol-Myers Squibb (see graph below). Further, a majority of the top 10 players have a higher Competitive Impact than AbbVie and Allergan. The PatentSight Competitive Impact tool considers the technology relevance and market coverage of a portfolio; its value is stated relative to other patents in the field, where 1 represents the global average.

Together their ranking improves considerably to become the eighth top player, although their holdings are still of lower average quality.

Bubble Area: Patent Asset Index™

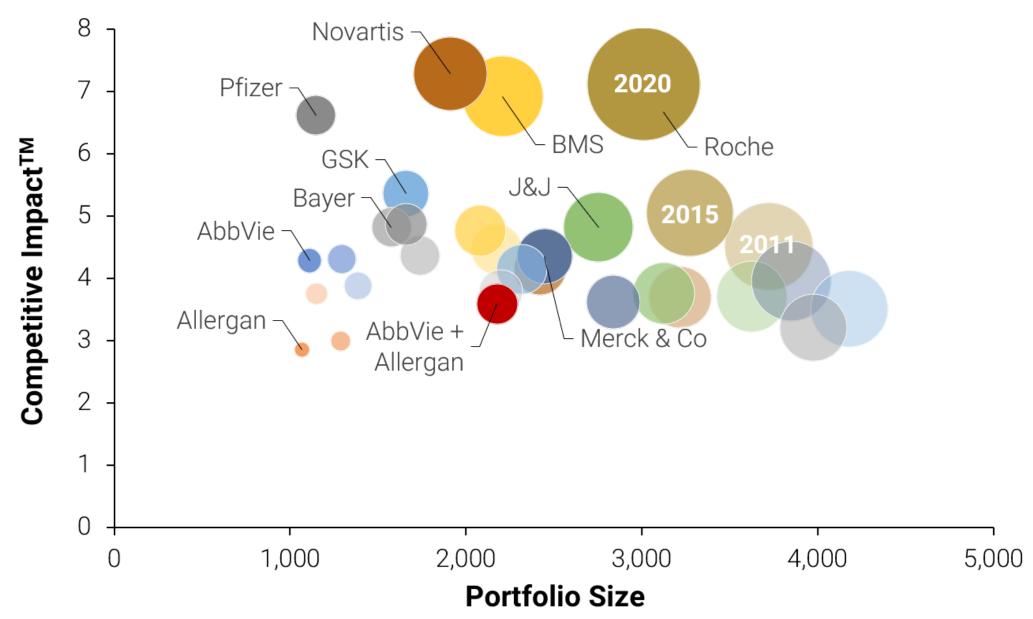


Benchmark of Roche, Bristol-Myers-Squibb and other main competitors in the IPC subclasses A61K and A61P in comparison to AbbVie and Allergan. Data as on 27th February 2020. Source: PatentSight Business Intelligence Platform www.patentsight.com

Source: PatentSight

A comparison of these portfolios over the past decade (by selecting reporting dates in 2020, 2015 and 2011), makes it clear that all the top companies have experienced a general reduction in portfolio size, mostly combined with an increase in the average Competitive Impact (see graph below). "This trend indicates that lower value patents are being discontinued and higher value patents are being maintained," explains Mansfield. "Normally this behaviour is an indication of active management rather than patents becoming inactive at the end of their natural lifetime."

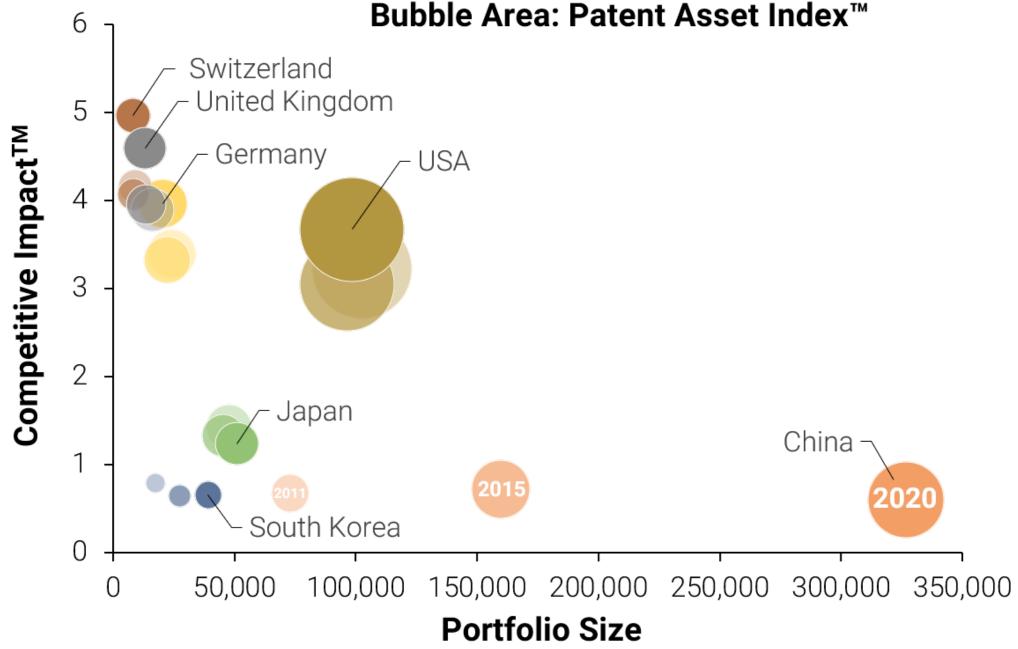
Bubble Area: Patent Asset Index™



Benchmark of Roche, Bristol-Myers-Squibb and other main competitors in the IPC subclasses A61K and A61P in comparison to AbbVie and Allergan. Three reporting dates (31.12.2011; 31.12.2015; 27.02.2020) as representatives. Data as on 27th February 2020. Source: PatentSight Business Intelligence Platform www.patentsight.com

Source: PatentSight

The decline in portfolio size and uptick in quality is both a trend among top players as well as a larger movement in the country of origin of the inventors (see graph below). It is seen in Europe and the US, but not in Asia. There has been particular growth in the area of A61K and A61P in China, with a five-fold increase over the past decade, but quality has not experienced the same boom.



Benchmark of main authorities in the IPC subclasses A61K and A61P. Shown are three reporting dates (31.12.2011; 31.12.2015; 27.02.2020) as representatives. Data as on 27th February 2020. Source: PatentSight Business Intelligence Platform www.patentsight.com

Source: PatentSight

IAM says:

AbbVie's success is highly dependent on Humira, which accounted for approximately 61% of the business's total net revenues in 2018. It seems as if this acquisition was all about getting access to Allergan's Botox, a product that will not be losing its exclusivity any time soon - and is expected to generate \$5.1 billion a year by 2024.

<u>Analysts have not given glowing reviews</u> to the potential value of Allergan's pipeline, but it delivers what AbbVie needs: a way to soften the blow of the Humira patent cliff. However, that's not to say that is it's only worth. AbbVie got a great deal on the patent portfolio and it certainly diversifies its assets and specialisations. This could present useful opportunities in the future.