

Takata - What's left after the crash?

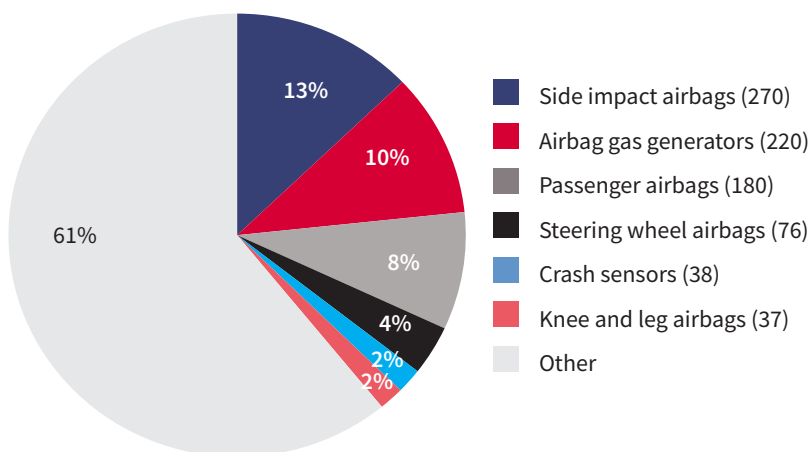
On 26 June, Takata filed for bankruptcy in Japan and the US and announced the sale of substantially all of its assets to Key Safety Systems (KSS) for US\$1.6bn, with closing scheduled for Q1 2018.

In this **Executive Briefing**, we consider this turn of events from an IP perspective.

Companies covered in this report: Takata, Key Safety Systems (KSS), Joyson Electronics, ZF, Delphi, Autoliv.

The events leading to the bankruptcy are well documented. By 2019 it is projected that 125 million vehicles will have been recalled due to defective airbags and in the bankruptcy filings it is estimated that its liability could exceed US\$50bn. The intended sale to KSS of all but the toxic PSAN (phase-stabilized ammonium nitrate) airbag inflator assets should ensure continuity of supply to OEMs and employment for 60,000 employees.

Chart 1: Takata inventions by technology – Inventions by technology



From an intellectual property perspective, this will also lead to a transfer of a portfolio that has been built up over 30 years to an organisation which is relatively new to the patent world.

Chart 1 is an analysis of the Takata portfolio, broken down by its main clusters.

Chart 2 is an activity chart showing growth from the late 1980s with a particular surge in 2005. The decline since that time will in part be attributable to the airbag recall which will have been a significant distraction in both time and money since 2004.

Chart 2: Takata inventions over time – Takata Corporation

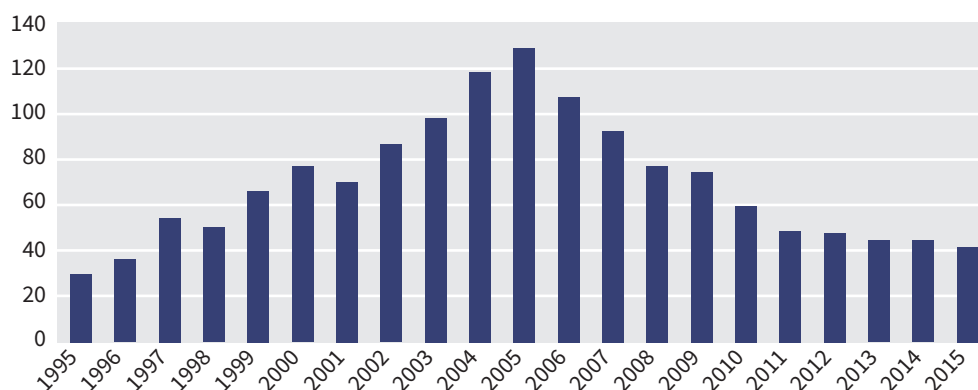


Chart 3: Anatomy of Joyson portfolio – Joyson Electronics Patent Applicants

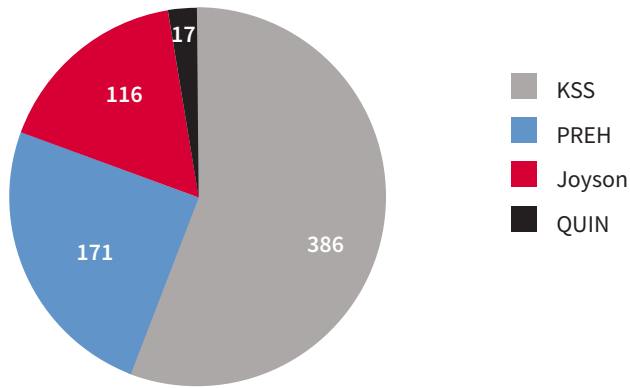


Chart 3 is a similar analysis of Ningbo Joyson Electronic. Corporation (Joyson) listed on the Shanghai Stock Exchange, with headquarters in China.

Joyson merged with KSS in June last year. It also illustrates the impact of both the KSS and the earlier 2011 acquisition of Preh GmbH.

Chart 4 is a more detailed study of who has protected a range of airbag technologies. This visualisation provides insight into not only who owns the largest share of the patent “market” (Autoliv), but also identifies who is growing (green) or reducing (red) their share of the market.

Chart 4: Who’s doing what in airbag technology

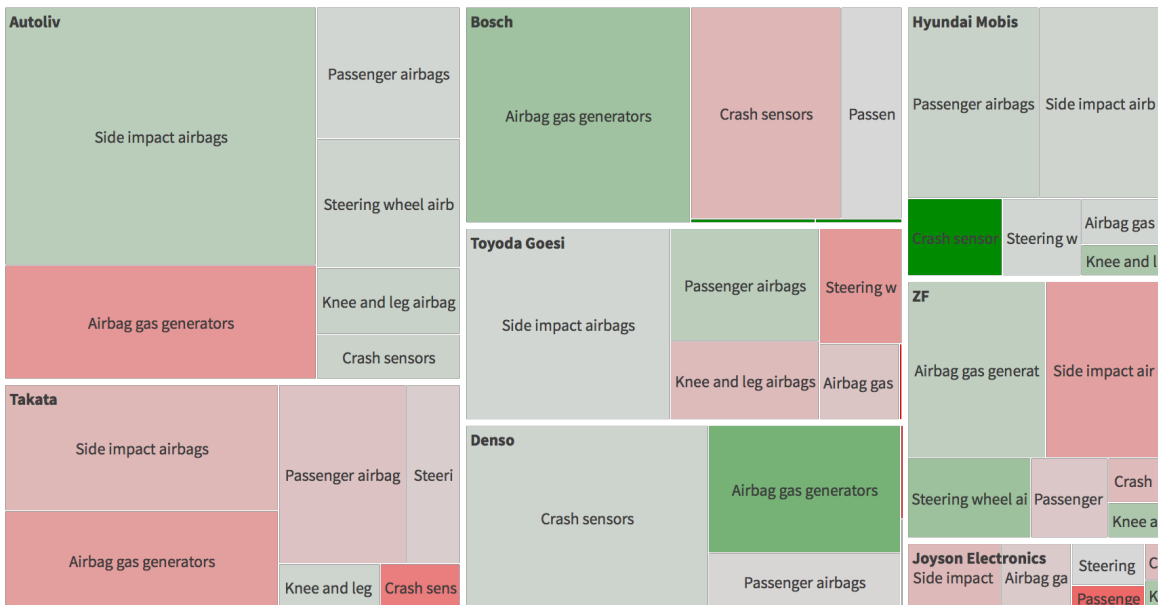
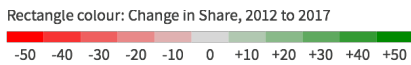
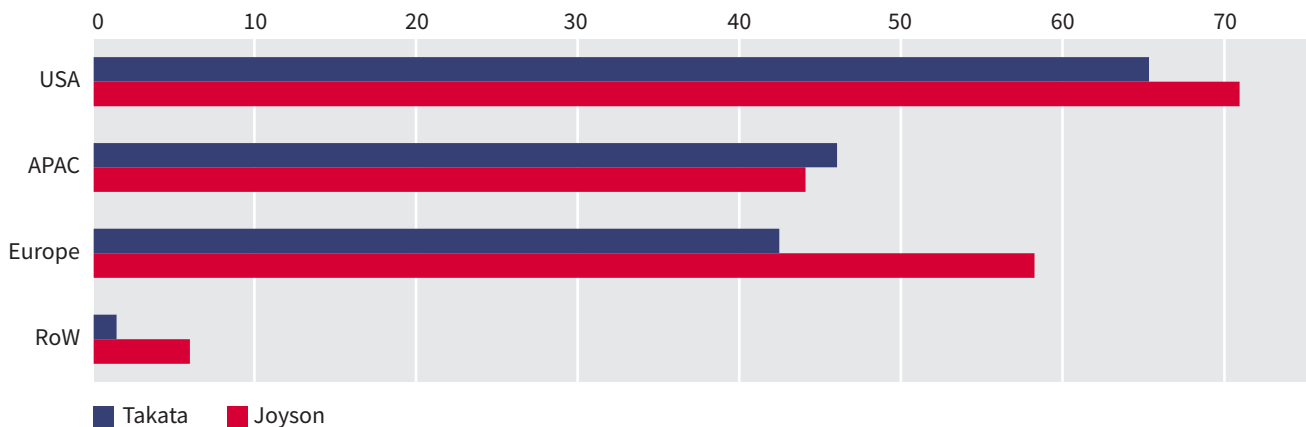


Chart 5 is an analysis of Takata’s and Joyson’s patents by reference to the scope of geographic protection. Both organisations recognise the importance of broad geographic protection (albeit Joyson through acquisition). Both profiles are a long way from from the Asia-focussed portfolios that you observe in many other parts of the automotive sector.

Chart 5: Geographic scope of protection



This type of data will also prove useful to the legal teams tasked with due diligence. Inventor data for example will be crucial in ensuring that the right people come across and are incentivised to stay.

Chart 6 illustrates this by reference to a list of Takata’s top 5 inventors in recent times.

Chart 6: Takata top 5 inventors

Inventor	Patent Families
Feller, Jens	17
Abe, Kazuhiro	16
Sugimori, Sakae	16
Hordos, Deborah L.	15
Mayville, Brian A.	<u>15</u>

This is a sad moment in Japanese automotive history which has presented China with another opportunity to improve their position internationally. As Joyson work through the transaction and integration, they will be sure to focus on intellectual property, and retaining the R&D teams that have fuelled the innovation pipeline.