



2022 China M&A market review

Pharmaceutical and life science industry in China (excerpt)





Foreword

Description of the data listed in the report

- Data listed in the report is based, other than the noted, on information provided by Thomson Reuters, CVSource, Asian Venture Capital Journal, Public News and PwC Analysis.
- Thomson Reuters and CVSource only record public deals, and some deals that have been announced may not have been closed.
- Deal volume in the report refers to the volume of deals reported to the public, regardless of whether the deals value is disclosed or not.
- Deal value in the report only includes deals with disclosed value (referred as "disclosed value")
- "Domestic" refers to the Mainland China, Hong Kong Special Administrative Region (SAR), Macao SAR and Taiwan.
- "Overseas M&A" refers to Mainland China companies making outbound acquisitions
- "Inbound M&A" refers to overseas companies buying domestic companies
- The term "private equity fund transactions" refers specifically to equity transactions with deals value of over \$10 million that are conducted by financial investors or primarily conducted by private equity fund managers. It also includes transactions by financial institutions and group companies with the nature of private equity investment
- "Venture capital fund transactions" specifically refers to equity transactions under \$10 million that are conducted by financial investors, as well as equity transactions with undisclosed deals value but conducted by financial investors
- "Strategic investor" refers to a corporate investor who acquires or merges a company and brings it into its existing scope of operations (compared with "financial investor")
- "Financial investor" refers to an investor who engages in M&A for the purpose of making a profit through a future sale, including, but not limited to, private equity funds and venture capital funds



M&A trends overview

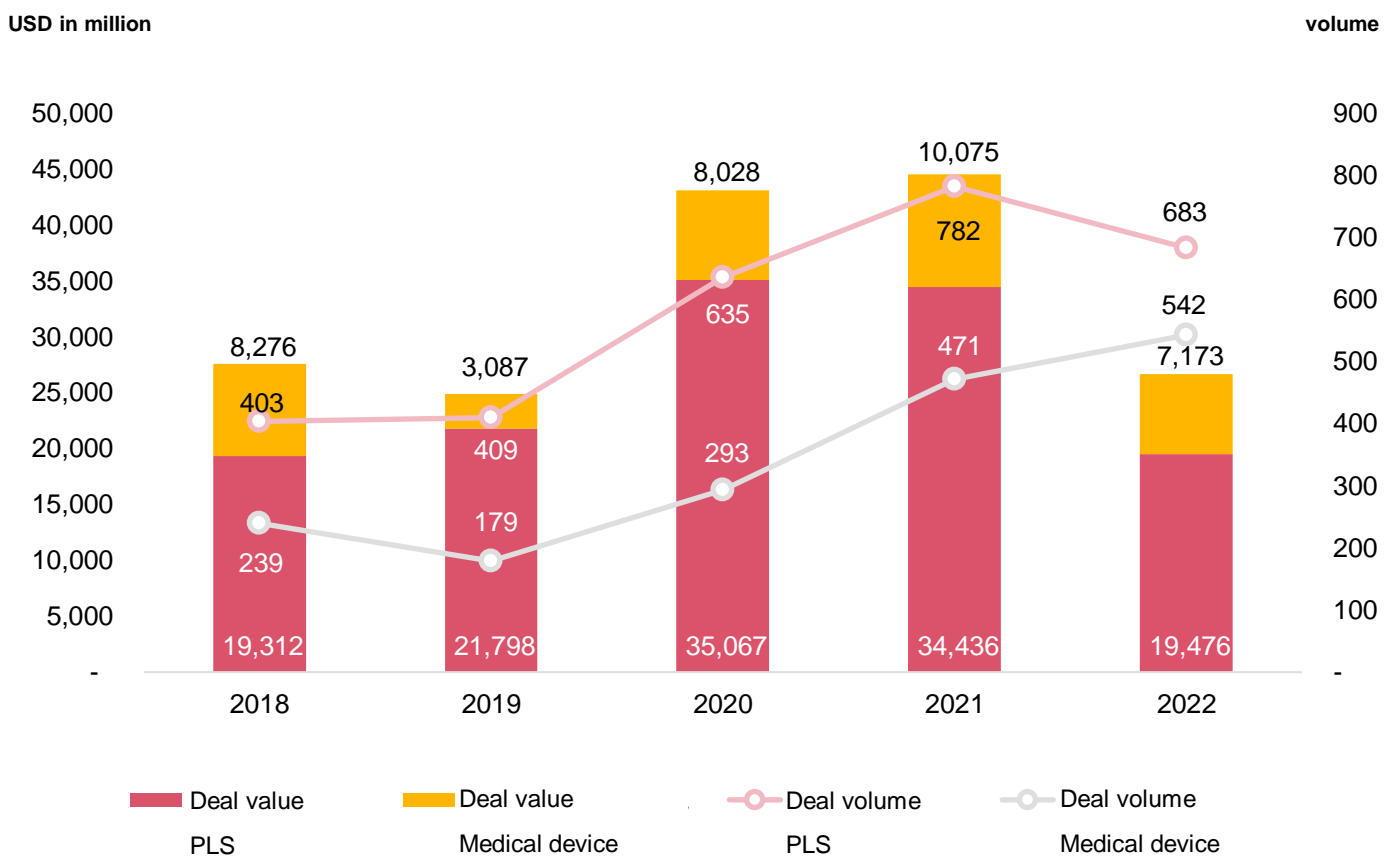


Overview

Affected by the macro environment, the total deals value in the PLS industry decreased by about 40% to US\$26.6 billion compared to 2021. Although the deals volume slightly decreased from the peak in 2021, a total

of 1,225 disclosed transactions were still made. The medical device and pharma sectors showed a different trend, with medical device deals reaching a historical high in terms of volume.

The deal volume and value in China's PLS



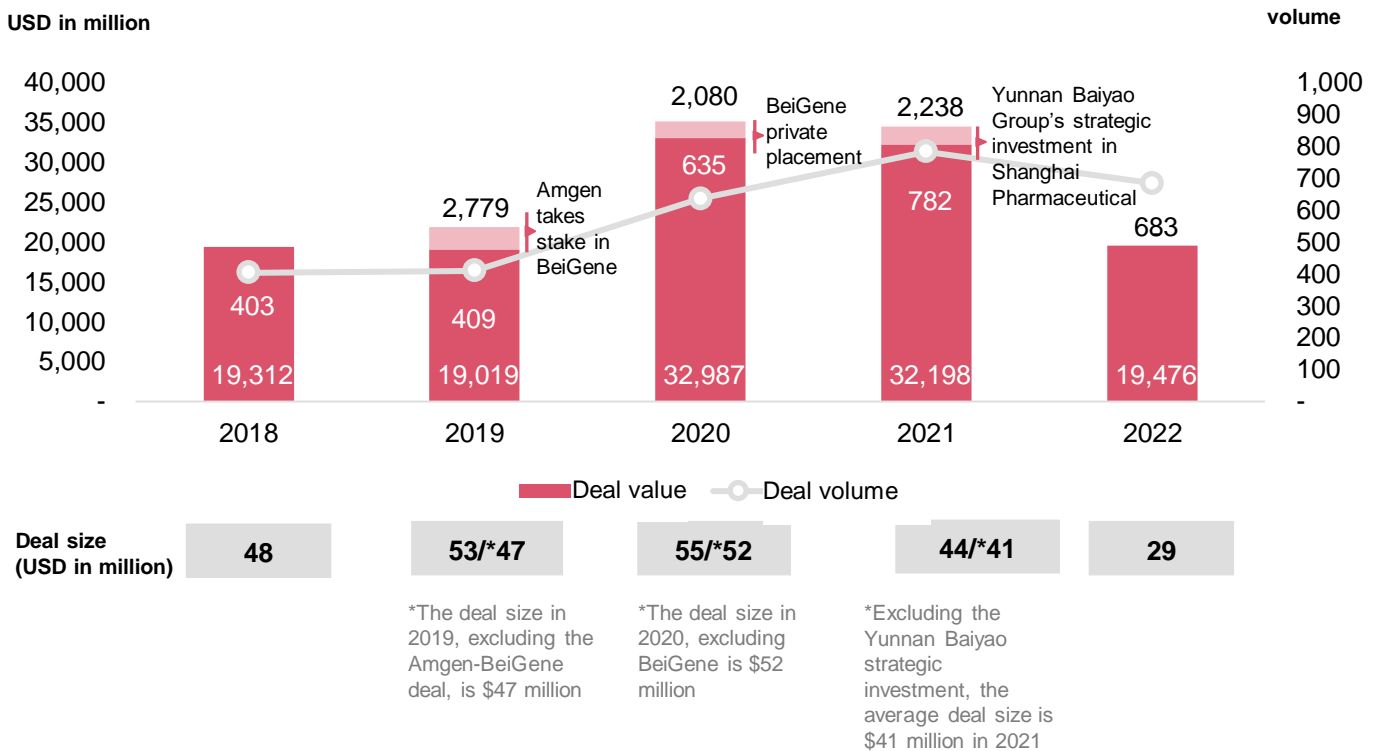
Sources: Thomson Reuters, CVSource and PwC Analysis

Pharma M&A trends overview

Since the outbreak of the COVID-19 pandemic in 2020, the pharma industry has witnessed a surge in M&A transactions for two consecutive years. However, due to the secondary market weakness and valuation adjustments in the pharma

sector, M&A transactions gradually cooled down in 2022. A total of 683 deals were disclosed, with a decrease of 43% YoY to US\$19.5 billion. The reduction in the number of large transactions led to a decrease in the average deal size.

The deal volume and value in China's Pharmaceutical industry from 2018 to 2022



Snapshots

1. The number of deals decreased from 782 in 2021 to 683 in 2022, and the average deal size decreased from US\$41 million to US\$29 million. Only 41 transactions with disclosed value exceeding US\$100 million, accounting for 52% of the total transactions in the year (106 transactions with a 65% share in 2021);
2. Financial investors continued to lead in the Pharma M&A market, with deals volume and value accounting for 70% and 60% of the year's transactions, respectively;
3. Domestic strategic transactions remained stable with a slight decrease. "Steady progress" became the domestic strategic investors' choice in uncertain macro environments. Companies with abundant funds formed economies of scale through M&A integration, and leading pharmaceutical groups continued to integrate high-quality resources;
4. Large deals in outbound and inbound M&A appeared, in order to introduce high-quality pipelines and accelerate the promotion of international layouts, which became a driving force for cross-border transactions;
5. Biotechnology and gene technology sector still lead in the industry, with deals volume and value accounting for 68% and 61% respectively. Capital favoured differentiated innovative areas.

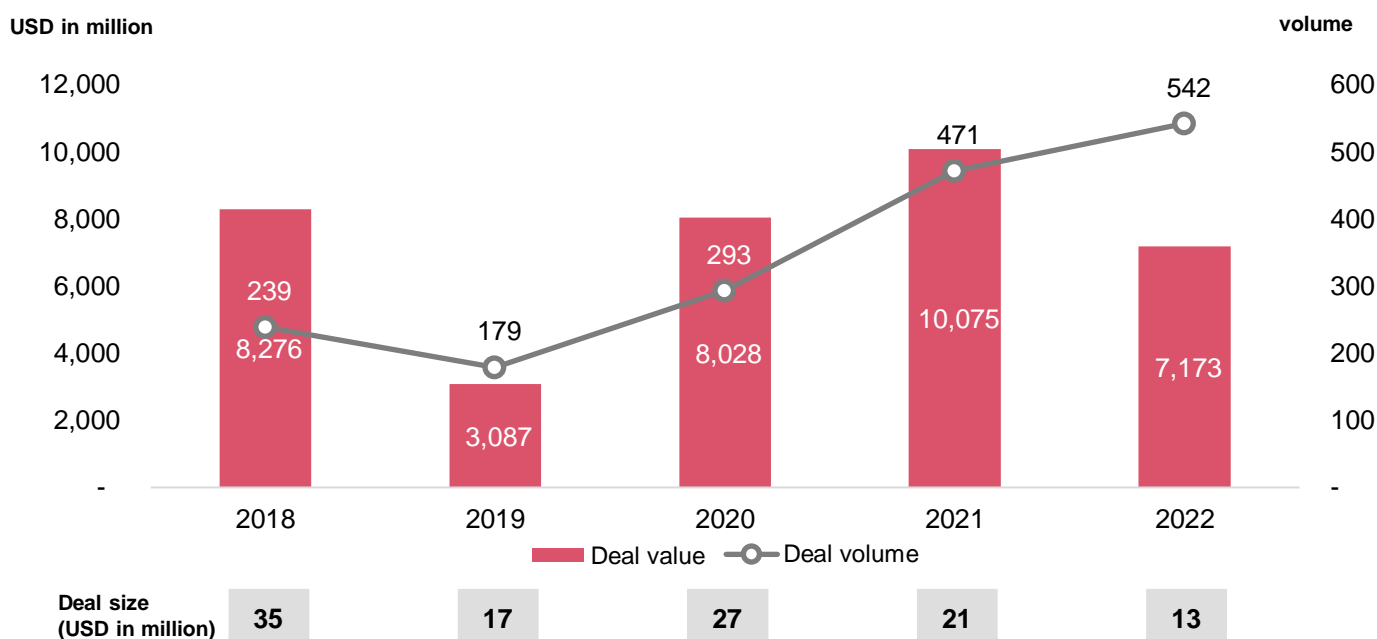
Sources: Thomson Reuters, CVSource and PwC Analysis

Medical device M&A trends overview

Affected by policy benefits such as domestic substitution, government's encouragement of "specialization, refinement, uniqueness, and novelty," and the expansion of the Fifth Edition of the Science and Technology Innovation Board to the medical device sector, capital continued to focus on the

medical device sector. The number of deals reached 542 for the first time, a new high in the past five years. However, due to large transactions decreased, the disclosed deals value in the medical device sector in 2022 decreased to US\$7.2 billion.

The deal volume and value in China's medical device industry from 2018 to 2022



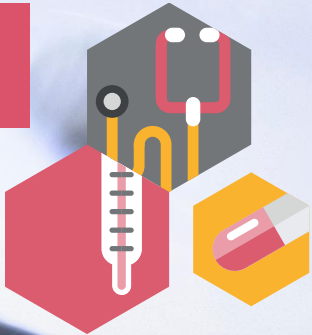
Snapshots

1. The volume of deals increased from 471 in 2021 to 542 in 2022, and the overall transaction showed a trend of concentrating large transactions and continuously increasing small transaction volume, with the average deal size falling from US\$21 million to US\$13 million, leading to a decrease in the total transaction amount.
2. The disclosed value of top deals increased from the previous year. The total amount of the top ten deals in 2022 was US\$2.8 billion, accounting for 39% of the total disclosed transaction amount (the top ten transactions in 2021 amounted to US\$2.5 billion, accounting for 25%). High-quality projects were sought after by capital, and nearly half of the top 10 deals were private placement of listed companies. Obtaining key resources also became a major theme for top deals in 2022.
3. Financial investors continued to lead the medical device sector's M&A, with transaction volume accounting for more than 70% of the overall transactions. Influenced by policy benefits, the number of financial investor transactions in 2022 further increased and reached a historical new high in the reporting period.
4. Chinese medical device companies actively laid out advanced technology overseas, and overseas M&A showed signs of recovery. At the same time, multinational companies also saw opportunities for Chinese device development and made large inbound transactions.
5. IVD, consumables sectors remains hot in the market. In terms of disclosed value, consumables surpassed IVD for the first time as the largest sector. At the same time, M&A topics were more diversified, with various subsectors flourishing, and innovative cutting-edge areas becoming a new direction for capital.

Sources: Thomson Reuters, CVSource and PwC Analysis



Pharma



Top deals

The total amount of the top 10 deals in 2022 was US\$5.3 billion, accounting for 27% of the total disclosed deals value, and deal size and accumulative amount of top deals both decreased compared to previous years. Large enterprises optimised and integrated resources through equity transactions, private placement, and equity acquisitions to

strengthen control, expand business boundaries, or lay the foundation for future development through additional public offerings and SPAC listings. At the same time, several large inbound deals in Chinese local biotech companies appeared in top deals, highlighting innovative value.

Top 10 deals in 2022

	Target	Investor	Deal type	Sub-sector	Deal Value (USD in million)
1	Shanghai Pharmaceuticals	Shanghai Shangshi	Equity transfer	Integrated pharmaceutical group	877
2	Yisheng Biopharma	Summit Healthcare Acq Corp	SPAC	Vaccine	834
3	Fosun Pharma	Shanghai Gaoyi Assets, UBS, Caitong Fund, etc	Private placement	Integrated pharmaceutical group	664
4	Beijing Continent	Catalyst Biosciences Inc	Buyout	Anti-fibrosis drugs	555
5	Kelun	IDG Capital, SDICFUND, MSD, Cinda Capital, etc	Pre-IPO	Innovative drugs	551
6	KPC Pharmaceuticals, Inc	CR Sanjiu	Buyout	Traditional Chinese medicine	437
7	SinoBioway Medicine	Globe Biomedical	Subsidiaries of listed companies stock transfer	Nerve growth factor drugs	430
8	Innovent	Sanofi	Private placement	Innovative drugs	357
9	Tessera Therapeutics	CDH Investments, etc	Series C financing	Gene technology	300
10	Taibang	GIC, etc	Financial investments	Blood products	300

Sources: Thomson Reuters, CVSource and PwC Analysis

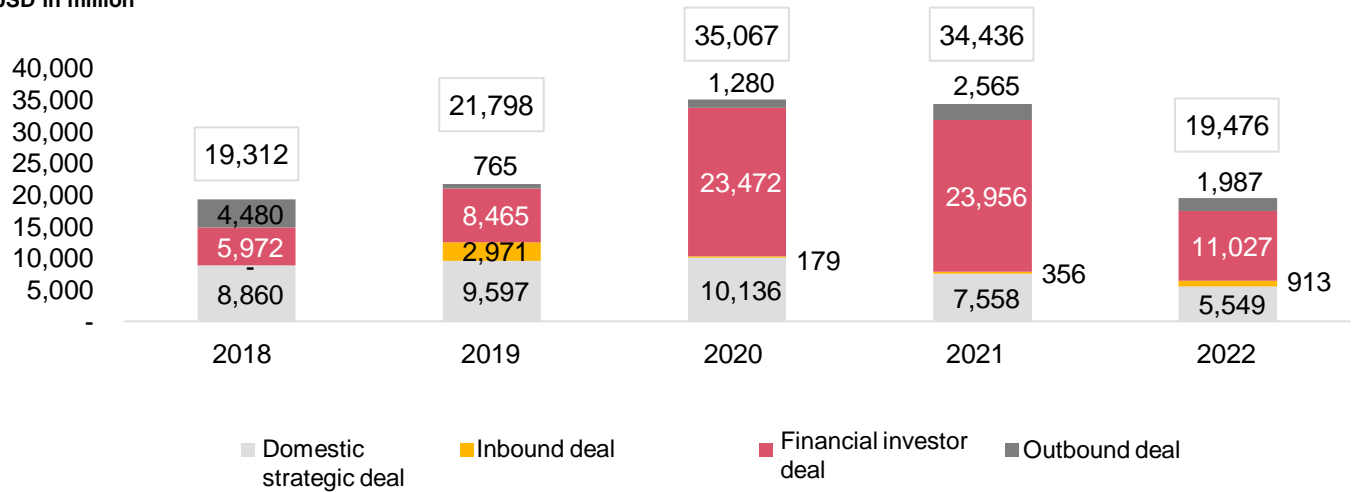
Deal types

1) Financial investors continued to lead the pharma M&A, with transaction volume accounting for about 71% of the overall transactions in 2022. The trend of early-stage and small-scale investment was significantly apparent, and the decrease in large transactions led to a significant decrease in transaction amount; 2) Influenced by macroeconomic uncertainty, domestic strategic investors were relatively cautious, leading to a relatively stable even slightly decreased trend of domestic

strategic M&A. However, companies with abundant funds achieved business expansion through M&A; 3) Outbound M&A was still dominated by financial investors, and transactions of private and state-owned enterprises remained cautious, with a slight decrease in transaction volume and amount; 4) The proportion of inbound transactions in terms of transaction volume and amount remained small, but some large inbound transactions appeared.

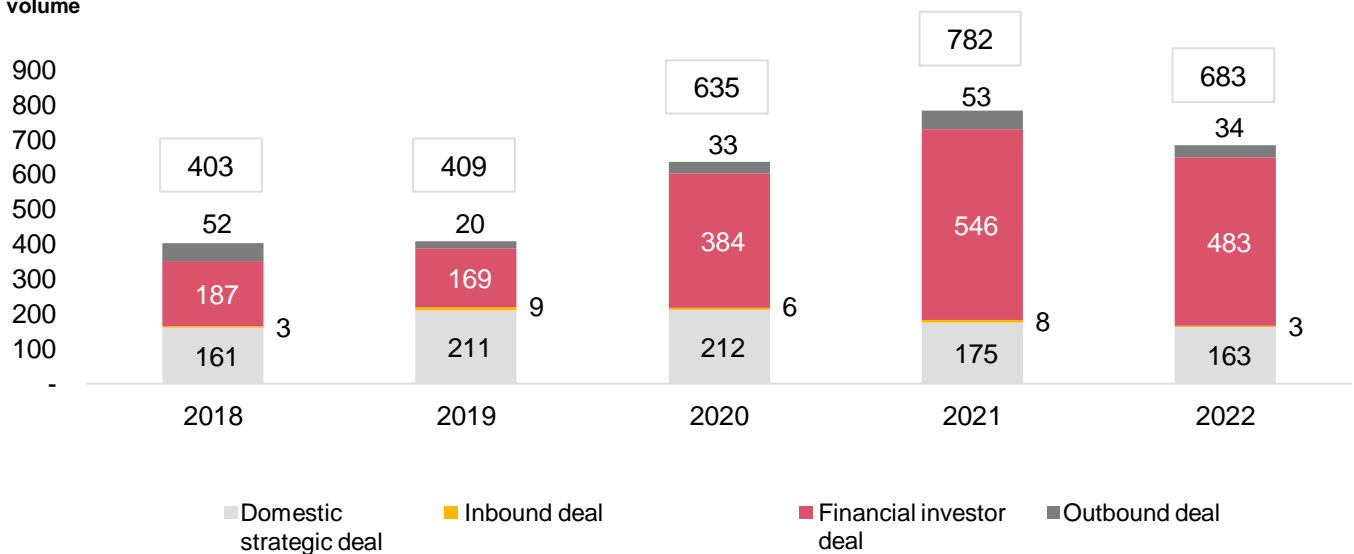
Deal value (from 2018 to 2022)

USD in million



Deal volume (from 2018 to 2022)

volume



Sources: Thomson Reuters, CVSource and PwC Analysis

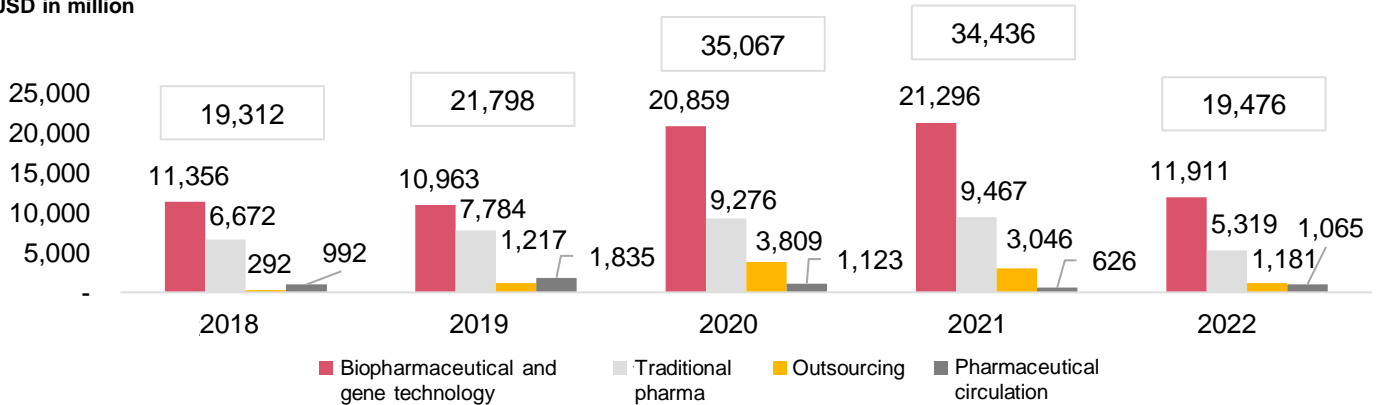
Sub-sectors

Innovation remains the main theme of pharma industry, with biological pharmaceuticals and gene technology still dominating M&A transactions. Early-stage innovative technologies are the hot spots of M&A transactions. Though

disclosed value of innovative drug have almost halved, the number of transactions has only slightly decreased. M&A integration has become a keyword for traditional pharmaceutical and pharmaceutical distribution sectors.

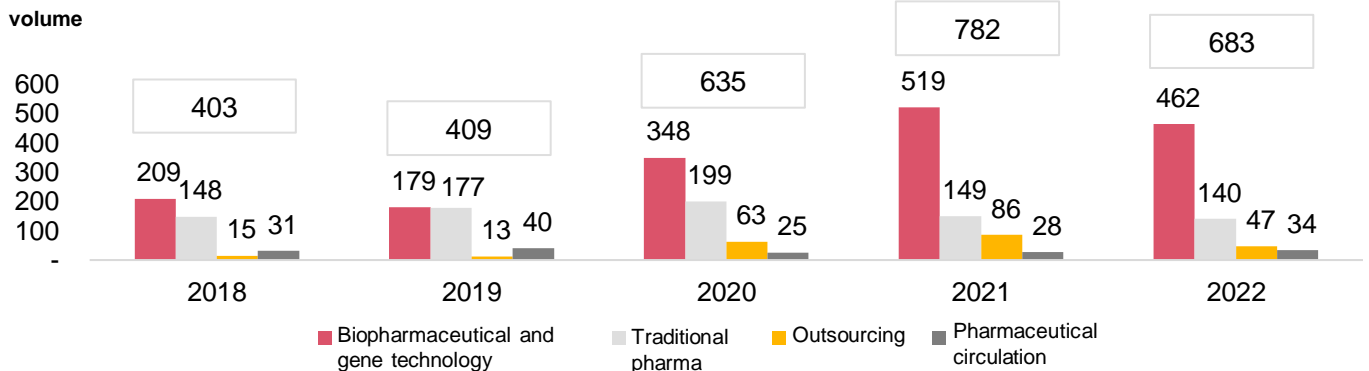
The deal value in the pharmaceutical industry by sectors (from 2018 to 2022)

USD in million



The deal volume in the pharmaceutical industry by sectors (from 2018 to 2022)

volume



Deal features

1. Although the market enthusiasm for investing the targets with homogeneous innovation has cooled rapidly, the value of innovation in the pharmaceutical industry can not be ignored. Innovation, as the theme of investment in the pharmaceutical industry, will remain the top agenda for a long time. Investors begin to pay more attention to the uniqueness, clinical value and commercialization of the pipeline products. Meanwhile, investment and financing are gradually tilted to the relatively early emerging fields such as double antibody, ADC, cellular immunotherapy, gene therapy, small nucleic acid drugs and so on. As a result, the average deal size is decreased.
2. The normalisation of centralised procurement of drugs with volume makes cost reduction and efficiency increase via scale effect a problem for pharmaceutical enterprises. The integrated trend of traditional pharmaceutical industry still exists, and the deal volume is relatively stable, but the deal value is declined affected by the uncertainty of macro environment.
3. Leading players in the field of pharmaceutical outsourcing have obvious advantages, but M&A is concentrated on small and medium-sized players and new technology enterprises such as cell and gene technology, so the deal value is decreased;
4. The leading companies in the pharmaceutical circulation actively conduct M&A and integration within the industry to achieve business expansion, with an increase in the disclosed deal value.



Medical devices

Top deals

The total amount of the top 10 deals in 2022 was \$2.8 billion, which accounted for 39% of the total disclosed deals value (compared to \$2.5 billion and 25% in 2021). The number of top deals has increased compared to last year, as quality

projects are highly sought after by investors. Nearly half of the top ten deals were listed companies issuing private placements. Achieving synergy has also become a major theme of top deals in 2022.

Top 10 deals in 2022

	Target	Investor	Deal type	Sub-sector	Deal value (USD in million)
1	Phenox	Wallaby Medical	Buyout	Neurovascular intervention products	542
2	Acotec	Boston Scientific	Buyout	Medical instruments for vascular interventional therapy	523
3	DiaCarta	HH&L Acquisition Co	SPAC	IVD	460
4	Maccura	Longyin Investment, Perseverance Asset Management, Goldman Sachs, etc.	Private placement	IVD	249
5	Shangdong Pharma Glass	BOCOM Schrodgers, Caitong Fund, etc.	Private placement	Medicine package	237
6	OVCTEK	Guotai Junan Securities, Lord Abbett China Asset Management, Gf Securities, etc.	Private placement	Orthokeratoid and other rigid contact lenses	224
7	ProSomnus	Lakeshore Acquisition I Corp	SPAC	Medical devices for treating patients with obstructive sleep apnea	154
8	Anhui Huangshan Capsule	Shandong Lutai Holding Group	Buyout	Empty capsule	151
9	Yunkang Group	Harvest Fund Management, Shenzhen YHLO Biotech	IPO cornerstone investment	IVD	139
10	SONOSCAPE MEDICAL	AEGON-INDUSTRIAL Fund Management, Dabuniu Investment, etc	Private placement	Ultrasonic diagnostic system	121

Source: YAFO Life Sciences Global Healthcare Research, YAFO Capital & PwC Analysis

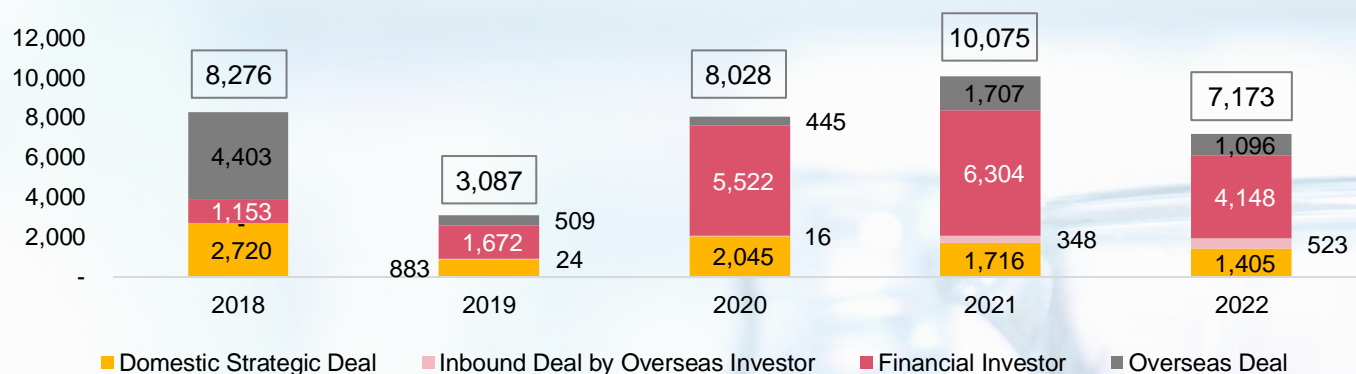
Deal types

1) Financial investors continue to dominate M&A in the medical device industry, with transaction volume reaching a historic high. However, as investors favour early-stage projects, the disclosed deals value has decreased. 2) Strategic integration consisted of the majority of strategic

M&A, with deal volume reaching a new high in nearly five years. 3) As local players actively acquire overseas advanced technologies, outbound deals have rebounded. 4) Large inbound deals have emerged.

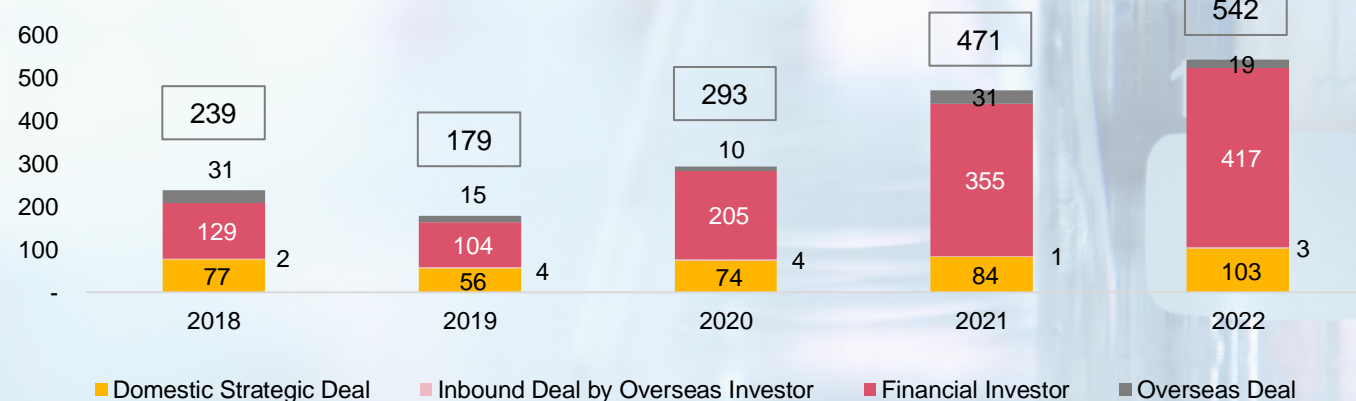
The deal value in the medical device industry by types (from 2018 to 2022)

USD in million



The deal volume in the medical device industry by types (from 2018 to 2022)

volume



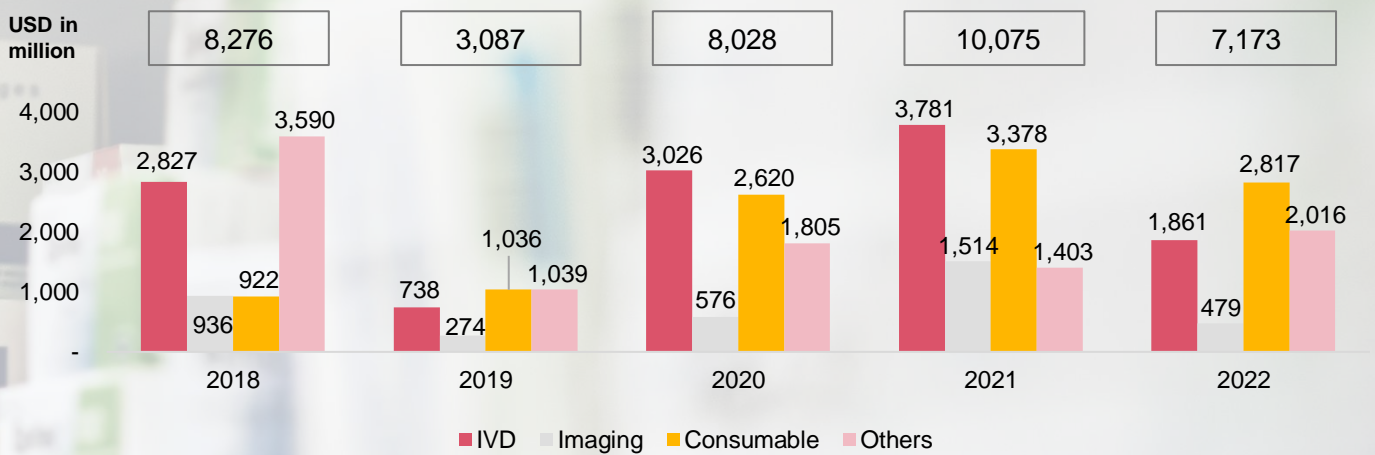
Sources: Thomson Reuters, CVSource and PwC Analysis

Deal types

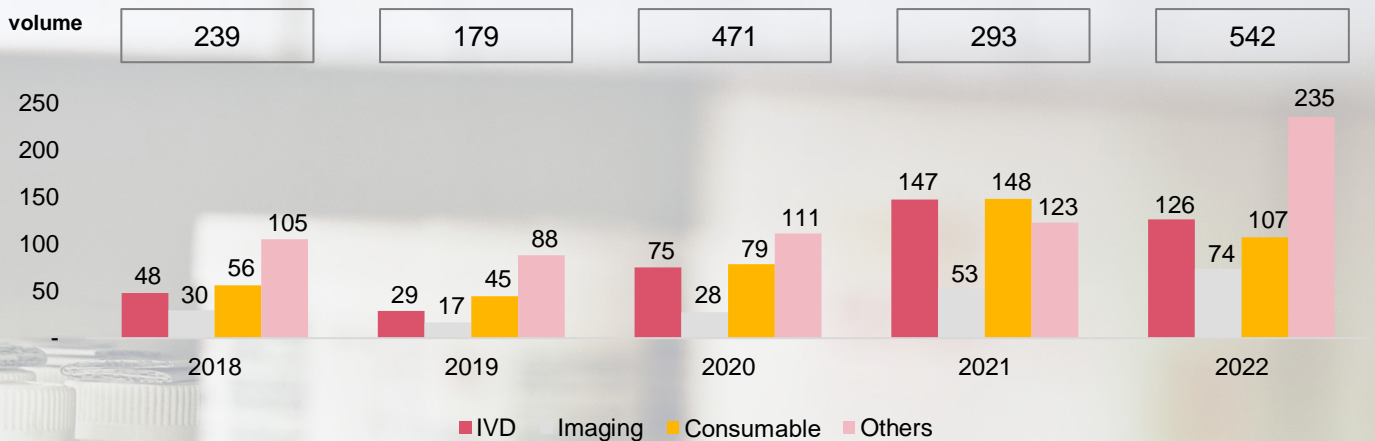
In 2022, the IVD and consumables sectors have both remained popular. However, for the first time, consumables have overtaken IVD to become the largest subsector. Meanwhile, the business of M&A targets has become more diverse, with targets operating various medical devices, such as emergency equipment, medical monitoring equipment, and

electrophysiological instruments, all being invested in. Innovative fields, such as surgical robots, sleep respiratory treatment equipment, and low-temperature cell storage equipment, have become investment directions for capital investment, and the number of medical device deals has reached a historic high

The deal value of medical device by sectors (from 2018 to 2022)

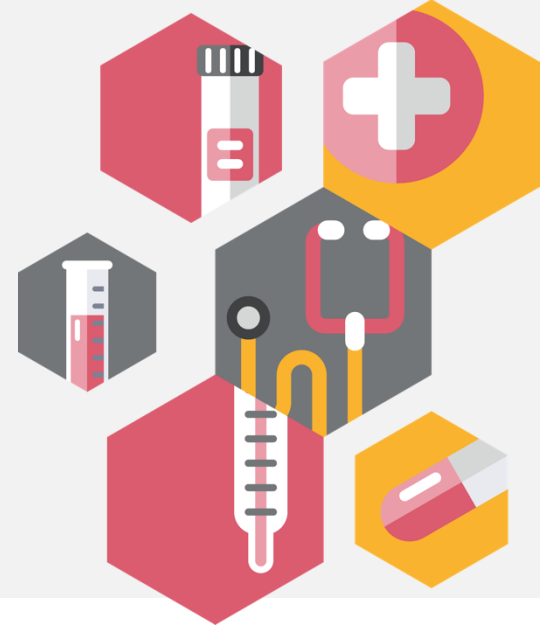


The deal volume of medical device by sectors (from 2018 to 2022)



Sources: Thomson Reuters, CVSource and PwC Analysis

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