



# Deal Capsule



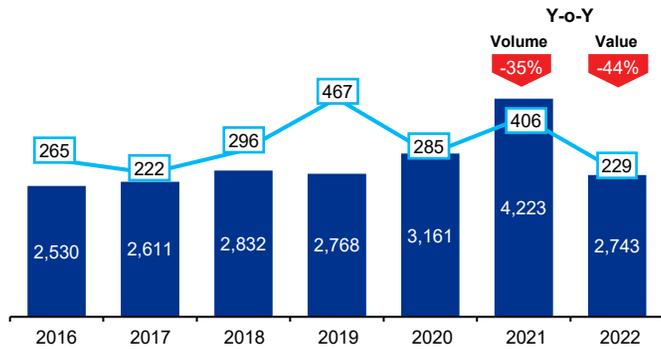
Transactions  
in Life Sciences

—

March 2023

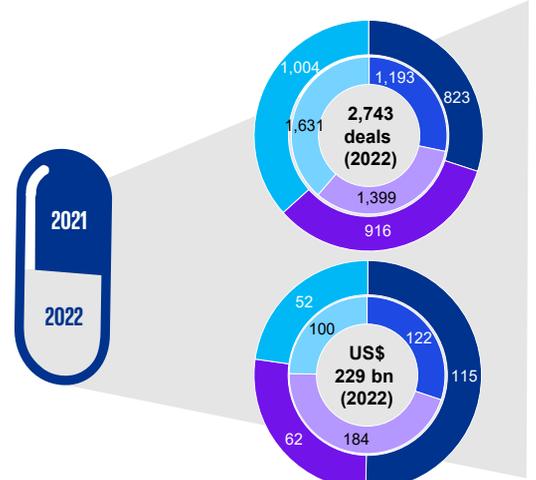
# Life Sciences Snapshot

## Trends in Life Sciences M&A



■ Number of Announced Deals — Deal Value in US\$ bn.

Source: Refinitiv, KPMG in Germany Analysis

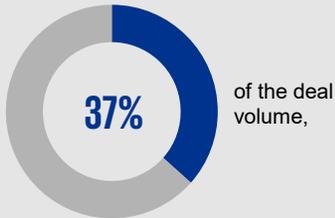


■ Pharmaceuticals ■ Biotech ■ Medical devices & diagnostics

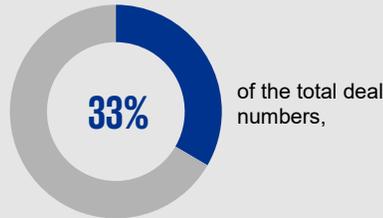
Note: Inner circle represents 2021, outer circle represents 2022

## M&A highlights

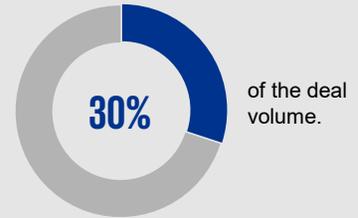
Of the **2,743 deals** announced in 2022, **medical devices and diagnostics sub-sector** accounted for



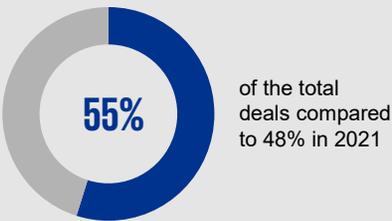
followed by the **biotech sub-sector** at



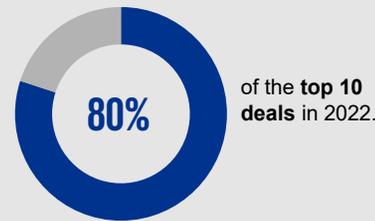
and **pharmaceuticals sub-sector** accounted for



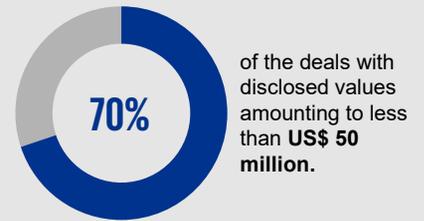
Sector was primarily targeted by **strategic investors** that accounted for



**North America** accounted for



Small transactions dominated the deal landscape with



Source: Refinitiv, Capital IQ, KPMG in Germany Analysis



2022 was an exceptionally challenging year for M&A in Life Sciences, marked by strong macro-economic headwinds and geopolitical uncertainties. However, these challenges could not impact the strong focus of Life Sciences companies on innovation and portfolio optimization, as they continued to focus on strategic partnerships, smaller acquisitions and licensing agreements. Despite the sector's underlying trends expected to remain highly positive, the resurgence of deal making in 2023 still depends on the macroeconomic recovery.

**Christian Klingbeil**  
Partner, KPMG in Germany

# Life Sciences Snapshot

## Setting the scene

- After a two-year increase in deal making, M&A activity in the global life sciences space declined by 35% year-over-year in 2022 on a deal volume basis - retreating below pre-pandemic levels of 2019.
- While the year started on an optimistic note, global factors, including a surge in Covid-19 cases, Russia's invasion of Ukraine, inflationary pressures, supply chain disruptions, interest rate hikes, and the Inflation Reduction Act (IRA) signed in the US in August 2022 adversely impacted the deal making environment.
- Despite these challenges and fluctuating market dynamics, the sector observed a few attention-grabbing acquisitions particularly in the last quarter of the year, such as the acquisition of Horizon Therapeutics by Amgen and that of Abiomed by Johnson & Johnson.
- Looking forward, transactions in life sciences are supported by corrections in valuations along with a continued focus on bolstering pharmaceutical pipelines, the increasing interest in digital health solutions and a strong emphasis on innovation.
- Therefore, deal making in 2023 is expected to be in the area of tension between these strong sector fundamentals on the one side and the ongoing macroeconomic difficulties on the other side.

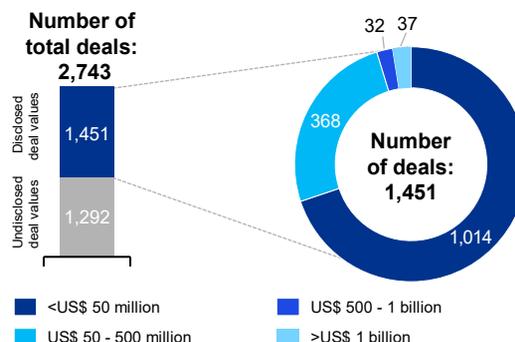


- In Q4-22, valuations for life sciences sub-sectors improved on a quarterly basis. However, on an annual basis valuations declined for both biotech and medical device sub-sectors (refer to pages 6/7) likely due to increasing investor skepticism in such a challenging macroeconomic environment.
- Diminishing deal appetite along with lower debt levels are shaping the current deal environment.
- KPMG's deal thermometer indicates moderation of M&A activities for the life sciences sector as investors remain selective on targeting strategic portfolios.

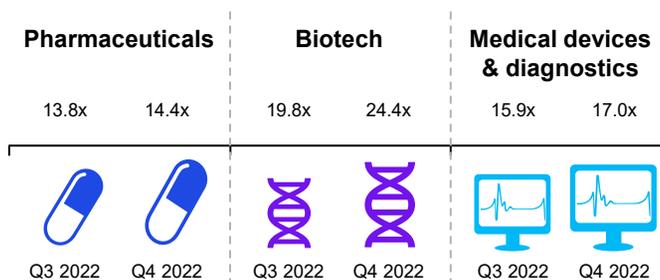


## 2022 M&A profile

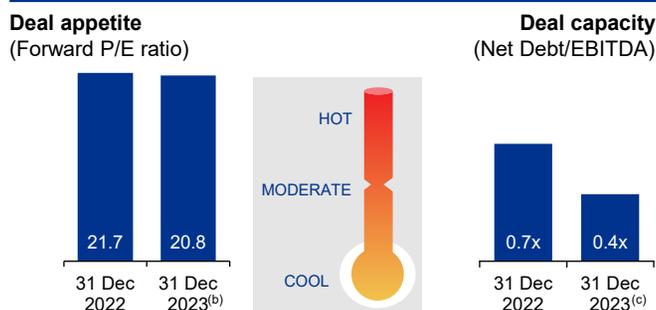
### Announced deals by sub-sector and size



### Sub-sector public EBITDA multiples<sup>(a)</sup>



## Deal Thermometer Q1-Q4 2022



Note: (a) Refers to 90% quantile at respective quarter-end  
(b) Forward P/E ratio: net profit expected for 2023 to market cap in 2022  
(c) Deal capacity: expected net debt to EBITDA in 2023

Source: Refinitiv, Capital IQ, KPMG in Germany Analysis

## Outlook

While supply chain disruptions, inflationary environment, and looming recession negatively impacted life sciences M&A activity in 2022, companies are expected to revisit their operational strategy to fill the innovation void. Their focus will likely be on buying assets that help complement their existing business and strengthen profit making in a shorter span of time.

# Life Sciences Snapshot

Global top deals announced in 2022<sup>(a)</sup>



The deal value of the global top 10 **announced** deals in Q1-Q4 2022 was

**US\$ 94.4 bn**



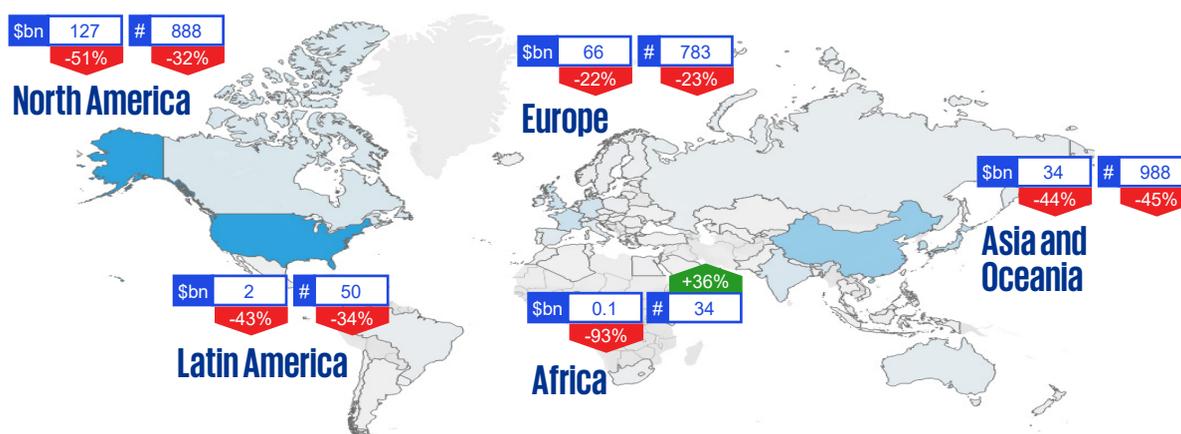
representing **41%** of total Life Sciences deal value

Bidder	Target	Sub-sector	Business area	Announcement	Status	Value <sup>(b)</sup>
Amgen Inc	Horizon Therapeutics PLC <sup>(c)</sup>	Pharmaceuticals	Auto-immune disease	29 Nov 2022	Pending	27.8
Johnson & Johnson	Abiomed Inc	Medical devices and diagnostics	Cardiology	1 Nov 2022	Completed	16.6
Novozymes A/S	Chr. Hansen Holding A/S	Biotech	Consumer health	12 Dec 2022	Pending	12.3
Pfizer Inc.	Biohaven Pharmaceutical Holding Co. Ltd.	Pharmaceuticals	Neurology	10 May 2022	Pending	11.6
Takeda Pharmaceutical Co Ltd	Nimbus Lakshmi Inc (owned by Nimbus Therapeutics)	Biotech	Auto-immune disease	13 Dec 2022	Pending	6.0
Pfizer Inc.	Global Blood Therapeutics Inc.	Pharmaceuticals	Hematology	8 Aug 2022	Completed	5.4
Bristol-Myers Squibb Co.	Turning Point Therapeutics Inc.	Pharmaceuticals	Oncology	3 Jun 2022	Pending	4.1
Amgen Inc.	ChemoCentryx Inc.	Biotech	Autoimmune disease	4 Aug 2022	Pending	4.0
Biocon Ltd.	Viatrix Inc. – Biosimilars Business	Pharmaceuticals	Oncology, diabetes, auto-immune	28 Feb 2022	Pending	3.3
GlaxoSmithKline plc	Affinivax Inc.	Pharmaceuticals	Immunology	31 May 2022	Pending	3.3

Note: (a) Financial investors are italicized  
 (b) All numbers are in USD billion  
 (c) Deal volume count and value have been allocated to Ireland

Source: Refinitiv, KPMG in Germany Analysis

## Deal volume and value by region<sup>(d),(e)</sup>



Note: (d) Intensity of blue color coding based on deal volume by target nation  
 (e) The percentage changes have been calculated using Q1-Q4 2021 data as reference



## Trends in M&A



## Deal value in Q4 2022<sup>(a)</sup>



Note: (a) Based on 104 disclosed deal values

## Public EBITDA multiples



Note: (b) Refers to compound annual growth rate during the period 2020-2022  
Source: Refinitiv, KPMG in Germany Analysis

## Snapshot

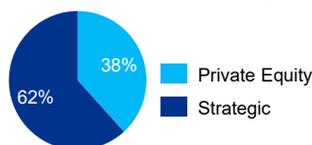
The pharmaceuticals sub-sector recorded a significant decline in deal volume in 2022, while large ticket transactions, such as those led by Amgen, Pfizer and Bristol-Myers Squibb helped sustain the market in terms of deal value.

In general, pharma investors primarily targeted assets that would help to expand revenue in a shorter span of time. Most of the deals were focused on enhancing pipeline and complementing existing portfolios to gain traction in high growth areas, such as oncology and auto-immune diseases (please also refer to pages 8/9).

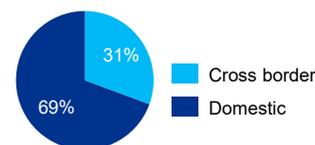
## Key highlights



### Private equity/Strategic



### Cross border/Domestic



## Outlook

Pharma investors are not rushing to acquire assets in the ongoing high interest rate environment despite the approaching patent cliff but are instead more drawn towards partnership deals. The strong focus on innovation is expected to drive M&A activity in late-stage quality assets.

## Top 5 deals announced in Q4 2022<sup>(c)</sup>

Bidder	Target	Rationale	Focus area	Value <sup>(d)</sup>
Amgen Inc	Horizon Therapeutics PLC	Complement innovative therapeutics portfolio and accelerate revenue growth	Auto-immune	27.8
Sumitomo Pharma Co., Ltd.	Myovant Sciences Ltd	Enhance commercialization potential of Orgovyx and Myfembree	Oncology, Women's Health	1.7
Incyte Corp	Villarix Therapeutics Inc (owned by Medicxi Inc)	Develop and commercialize Auremolimab to complement and enhance vitiligo and its other autoimmune disease treatment portfolio	Auto-immune	1.4
Merck Sharp & Dohme LLC	Imago BioSciences Inc	Strengthen pipeline by adding the Bomedemstat candidate, indicated for treatment of myeloproliferative neoplasms	Oncology	1.3
Advent International	Suven Pharmaceuticals	Accelerate growth in the pharma and specialty chemicals market via merger with this similar portfolio company	CDMO services	1.2

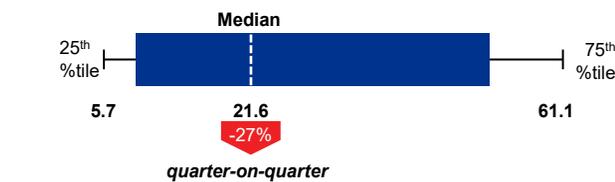
Note: (c) Financial investors are italicized  
(d) All numbers are in USD billion



## Trends in M&A



## Deal value in Q4 2022<sup>(a)</sup>



Note: (a) Based on 144 disclosed deal values

## Public EBITDA multiples



Note: (b) Refers to compound annual growth rate during the period 2020-2022  
Source: Refinitiv, KPMG in Germany Analysis

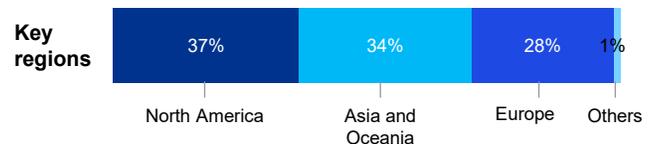
## Snapshot

Compared with the last few years of high deal traction in the biotech space, M&A activity declined significantly in 2022. However, the large-sized Danish deal between Novozyme and Chr. Hansen in December stabilized the deal value for the sub-sector.

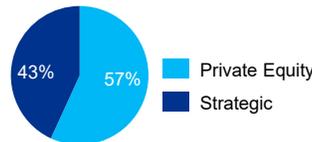
Against the backdrop of sector headwinds and macro-economic challenges, the sub-sector observed growing preference for licensing deals (not included in adjacent deal numbers).

Primarily, bidders targeted firms with innovative and promising clinical assets in areas such as oncology, immunology and gene therapy.

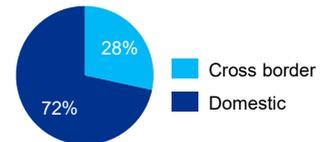
## Key highlights



### Private equity/Strategic



### Cross border/Domestic



## Outlook

As investors move cautiously in times of uncertainty, the biotech sub-sector is likely to record less large ticket transactions in the near future. Biotech companies are expected to hold on to R&D programs for longer duration.

## Top 5 deals announced in Q4 2022<sup>(c)</sup>

Bidder	Target	Rationale	Focus area	Value <sup>(d)</sup>
Novozymes A/S	Chr. Hansen Holding A/S	Expand into the food and nutrition markets	Consumer health	12.3
Takeda Pharmaceutical Co Ltd	Nimbus Lakshmi Inc (owned by Nimbus Therapeutics)	Strengthen the late-stage pipeline by adding NDI-034858 to portfolio	Auto-immune	6.0
Eli Lilly & Co	Akouos Inc	Advance the development of gene therapies such as AK-OTOF indicated for the treatment of hearing disability	Otology	0.6
HH&L Acquisition Co	DiaCarta Inc	Access public equity market to capitalize on growth opportunities for existing customers and expand into compelling markets	Molecular diagnostics	0.5
Mountain Crest Global Holdings LLC	Aum Biosciences Pte Ltd	Access public equity market to advance development and commercialization of promising oncology therapeutics like AUM001 and AUM601	Oncology	0.4

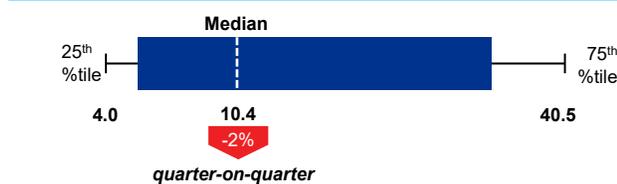
Note: (c) Financial investors are italicized  
(d) All numbers are in USD billion



## Trends in M&A



## Deal value in Q4 2022<sup>(a)</sup>



Note: (a) Based on 114 disclosed deal values

## Public EBITDA multiples



Note: (b) Refers to compound annual growth rate during the period 2020-2022  
Source: Refinitiv, KPMG in Germany Analysis

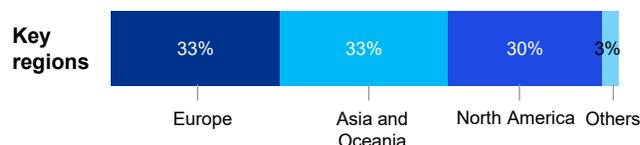
## Snapshot

With a flood of M&A deals in 2021 raising sector's optimism, the year 2022 observed a notable decline in deal activity in the medical devices sub-sector.

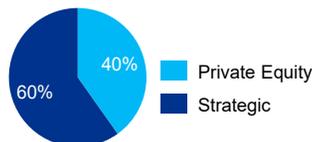
As investors turned increasingly cautious due to uncertainty in the global economy, deal activity in the sub-sector was marked by lower valuations and small-sized acquisitions.

Nevertheless, diagnostics emerged as an important area recording several key deals. Most of the deals were based on the rationale of portfolio expansion to complement existing offerings and improve market access.

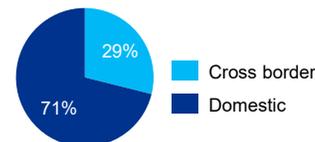
## Key highlights



### Private equity/Strategic



### Cross border/Domestic



## Outlook

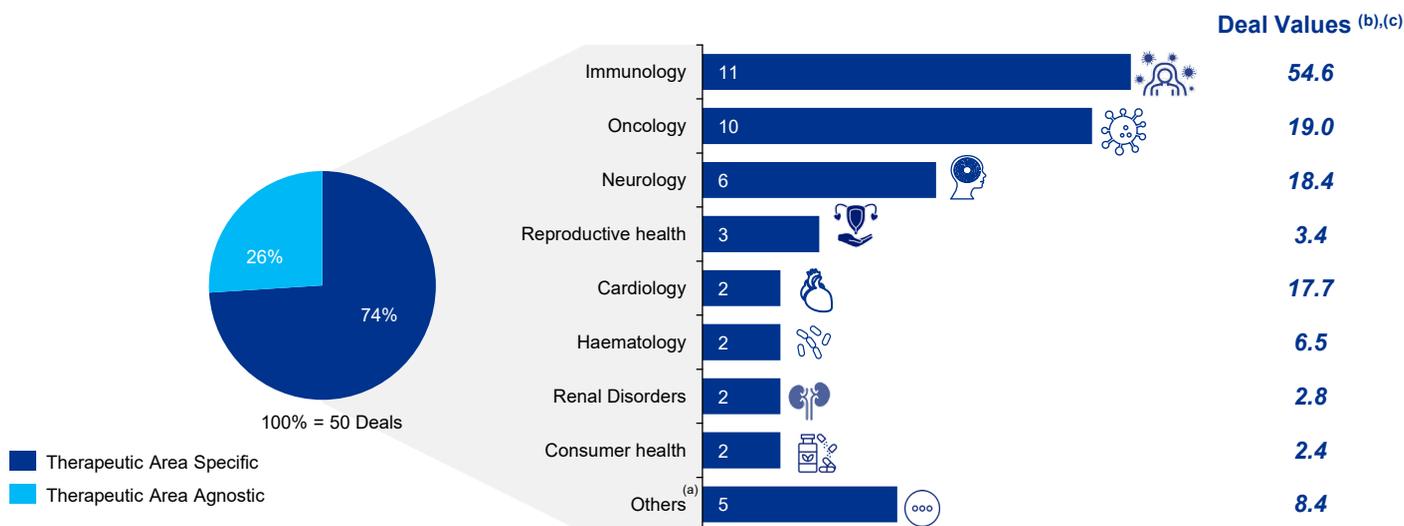
Overall, the outlook of deal making activity in the medical device sub-sector is expected to remain optimistic as companies tend to undertake value transformation activities further supported by the FDA clearing the backlog of regulatory filings.

## Top 5 deals announced in Q4 2022<sup>(c)</sup>

Bidder	Target	Rationale	Focus area	Value <sup>(d)</sup>
Johnson & Johnson	Abiomed Inc	Add Impella heart pump to complement the cardiovascular portfolio and improve patient access to realize higher revenue in growth markets	Cardiology	16.6
Thermo Fisher Scientific Inc	Binding Site Group Ltd (owned by Nordic Capital and Five arrows)	Expand specialty diagnostics business offerings by adding portfolio like Freelite and CE marked assays that are used in myeloma diagnosis and management	Oncology, Immunology	2.6
WerfenLife SA	Immucor (owned by TPG Inc)	Expand the transfusion and transplant diagnostics portfolio and improve the market access	Diagnostics	2.0
MBK Partners LLC	Medit Corp (owned by Unison Capital)	Leverage Medit's footprint and network and drive growth in the dental scanner solutions market	Diagnostics	1.9
Hellman & Friedman (Cordis Corp)	MA Med Alliance SA	Complement the existing portfolio by adding Selution SLR drug eluting balloon catheter platform and enhance the marketing, sales and distribution expertise	Cardiovascular	1.1

Note: (c) Financial investors are italicized  
(d) All numbers are in USD billion

# Top 50 Deals of 2022 – Ruling Therapeutic Areas

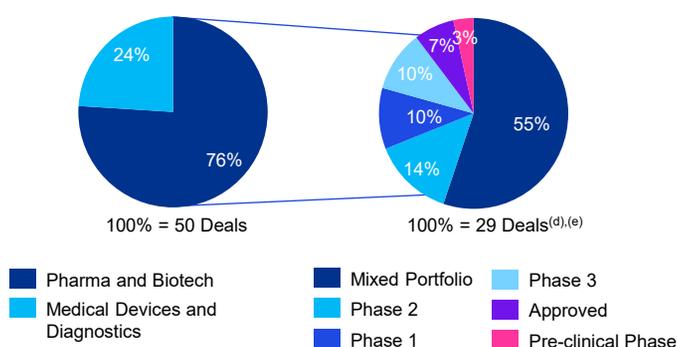


Note: (a) Others includes deals pertaining to dermatology, ophthalmology, respiratory and metabolic disorders  
 (b) Deals that mention multiple therapeutic areas have been counted multiple times  
 (c) All numbers are in USD billion  
 Source: Refinitiv, KPMG in Germany Analysis

## Market pulse

While most of the top 50 deals were related to the acquisition of disease-specific drugs and technologies, several others pertained to therapeutic area-agnostic products and services, such as medical equipment, diagnostic platforms, and CDMO services.

## Deal distribution – by developmental phase



Note: (d) Excludes 9 deals pertaining to phase-agnostic products and services, such as CDMO services, drug discovery platforms and consumer health products  
 (e) Total does not add up to 100% due to rounding off error  
 Source: Refinitiv, KPMG in Germany Analysis

Although companies with mixed portfolios (multiple drug candidates in different phases) garnered more traction from buyers, companies with late-stage assets added to the significant dollar value of the market.

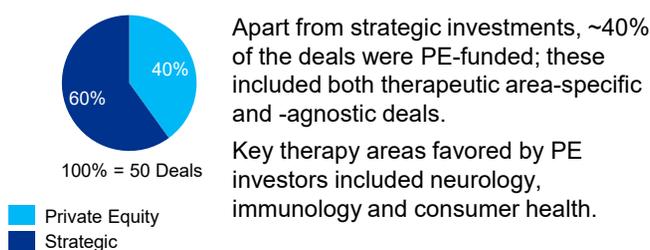
## Therapeutic areas in focus

Among the disease-specific deals, immunology and oncology remained the most prominent therapeutic areas due to the high prevalence of cancer and industry focus on the development of immunity-boosting drugs and vaccines, respectively.

Most of these deals were driven by companies looking to boost their pipelines with regard to personalized medicines and/or expand into the biosimilars segment.

Besides, neurological and reproductive disorders appeared to be key pursuit areas for companies looking to expand their existing drug portfolio and strengthen their R&D pipeline.

## PE interest in specific therapy areas and tech



Companies focusing on developing therapeutic area-agnostic technologies were more likely to secure funding from PE firms as these were safer to pursue and promised a higher ROI.

# Top 50 Deals of 2022 – Ruling Therapeutic Areas

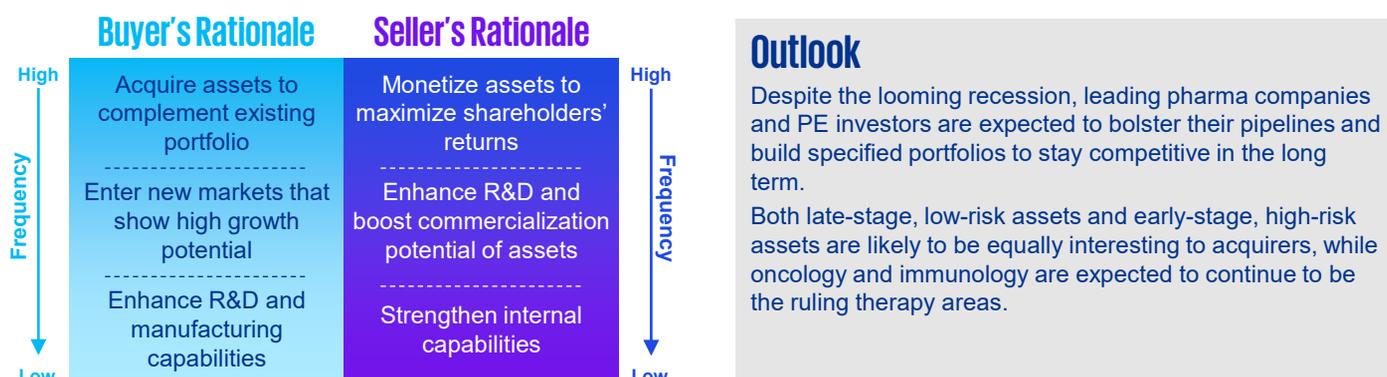
## Key deals by therapeutic area (2022)

The following table lists the key deals pertaining to the top three therapeutic areas:

Therapy Area	Bidder	Target <sup>(a)</sup>	Buyer Rationale	Seller Rationale	Value <sup>(b)</sup>
Immunology	Amgen Inc	Horizon Therapeutics PLC	Add commercialized meds like Tepezza, Krystexxa and Uplizna to portfolio and strengthen R&D pipeline	Maximize value of current portfolio	27.8
	Takeda Pharmaceutical Co Ltd	Nimbus Lakshmi (owned by Nimbus Therapeutics)	Strengthen late-stage pipeline by adding NDI-034858 to portfolio	Advance other programs in R&D pipeline	6.0
	Amgen Inc.	ChemoCentryx Inc.	Add the investigational drug Tavneos and other investigational drug candidates to portfolio	Strengthen financial base and accelerate R&D	4.0
	Biocon Ltd.	Viartis Inc. – Biosimilars Business	Expand product portfolio and emerge as a vertically integrated biosimilars player; strengthen EBITDA base	Optimize portfolio and improve revenue	3.3
Oncology	Bristol-Myers Squibb Co.	Turning Point Therapeutics Inc	Add Repotrectinib and other investigational drug candidates to portfolio	Strengthen financial base and accelerate R&D	4.1
	Biocon Ltd.	Viartis Inc. – Biosimilars Business	Expand product portfolio and emerge as a vertically integrated biosimilars player; strengthen EBITDA base	Optimize portfolio and improve revenue	3.3
	Thermo Fisher Scientific Inc	Binding Site Group Ltd (owned by Nordic Capital and Five arrows)	Add Freelite and CE-marked assays to portfolio	Accelerate scientific discovery, expand product offerings and improve financial base	2.6
	GlaxoSmithKline PLC	Sierra Oncology Inc	Add Momelotinib and complement existing specialty medicines portfolio	Improve business scale and strengthen financial growth	1.9
Neurology	Pfizer Inc.	Biohaven Pharmaceutical Holding Co. Ltd.	Expand internal medicine portfolio and commercialize Rimegepant and Zavegepant	Strengthen financial base and accelerate R&D	11.6
	UCB SA	Zogenix Inc.	Add Fintepla to portfolio and strengthen pipeline by adding investigational drug candidates, expand patient outreach, and fuel topline growth	Strengthen financial base and accelerate R&D	1.9
	Royalty Pharma plc	Theravance Respiratory Co LLC (owned by Theravance Biopharma Inc and Innoviva TRC Holdings)	Acquire royalty rights of Trelegy and advance development of Amprexetine	Eliminate debt and return capital to shareholders while advancing clinical development of Yupleri	1.5
	Biohaven Pharmaceutical Holding Co Ltd	Channel Biosciences (owned by Knopp Biosciences)	Add BHV-7000 to portfolio and acquire Kv7 proprietary technological platform	Accelerate clinical development of BHV-7000 and other drug candidates	1.2

Note: (a) Transactions are mentioned multiple times if the respective target is active in more than one therapeutic area.  
 (b) All numbers are in USD billion

## Buyer vs Seller rationale for top 50 deals (2022)



## Basis of data preparation

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Values and volumes used throughout the report are based on announcement date as provided by Refinitiv database extracted up to and including 31 December 2022 and supplemented by additional independent research. Data available after publication date is incorporated in subsequent editions and thus can deviate from previous editions. This report includes disclosed and undisclosed values for M&A transactions including minority stake purchases, acquisitions of remaining interest, and recapitalizations and it explicitly excludes self-tenders and spinoffs. Deviations from totals are due to rounding differences. The published numbers of deals and deal values are based on the analysis of target companies which operate in the following sub-sectors:

## Life Sciences:

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- Medicinal chemicals & botanical products
- Pharmaceutical preparations
- In vitro and in vivo diagnostic substances
- Biotechnology – biological products, except diagnostic substances
- Pharmaceutical wholesale
- Medical devices and diagnostics
- Plant sciences

KPMG's Deal Thermometer is based on financial data as provided by S&P Capital IQ of public companies in the same sector as noted above with a market capitalization at quarter end of at least a USD 1 billion. For the life sciences sector, this comprises 458 public companies.

## Sources:

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- Refinitiv
- S&P Capital IQ
- Various companies' press releases

Note: (a) Responsible according to German Law (§ 7 (2) BerlinerPresseG):  
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## Imprint

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