



# **India's Life Sciences Startup Investing Report**

**A 5-year review (2020-2024)**

# About the authors



Omnivore is a venture capital firm that supports visionary founders creating impact at scale across Bharat by advancing food security, agricultural prosperity, resource efficiency, and rural resilience. Over the past 14 years, Omnivore pioneered agritech and climate-smart venture investing in India, and currently manages USD 295 million across two active venture funds. Some of Omnivore's life and material science investments include altM, Fibmold, BioPrime, and Loopworm.



Nucleate is a 501(c)(3) non-profit dedicated to empowering tomorrow's biotech leaders by educating today's academic trainees. With 28 chapters across 150+ academic institutions worldwide and 1000+ student leaders, Nucleate's equity-free Activator program supports startups tackling health and sustainability challenges. To date, Nucleate has helped form 300+ startup teams, raising over \$320M for breakthroughs in protein sequencing, drug design, synthetic biology, and biomanufacturing. The India Chapter aims to bring together the Biotech ecosystem and foster innovation.

# India's Bioeconomy: A 5-year review

India's bioeconomy has expanded from USD 86 billion in 2020 to USD 165.7 billion in 2024, now making up 4.25% of India's GDP<sup>1</sup>. Startups form a small but important part of this larger ecosystem, driving innovation and advances in agriculture, manufacturing, and healthcare. They develop new solutions that large companies often adopt later.

According to BIRAC, India now has over 10,075 biotech startups – a ten-fold increase in the last nine years. This rapid growth shows both the rise in Indian entrepreneurship and the positive impact of government support programs. Private institutional capital, however, was initially absent and has since lagged behind in its support for the Indian life sciences ecosystem. Only a fraction of the total number of biotech startups receive funding from the private sector, but that number is beginning to grow.

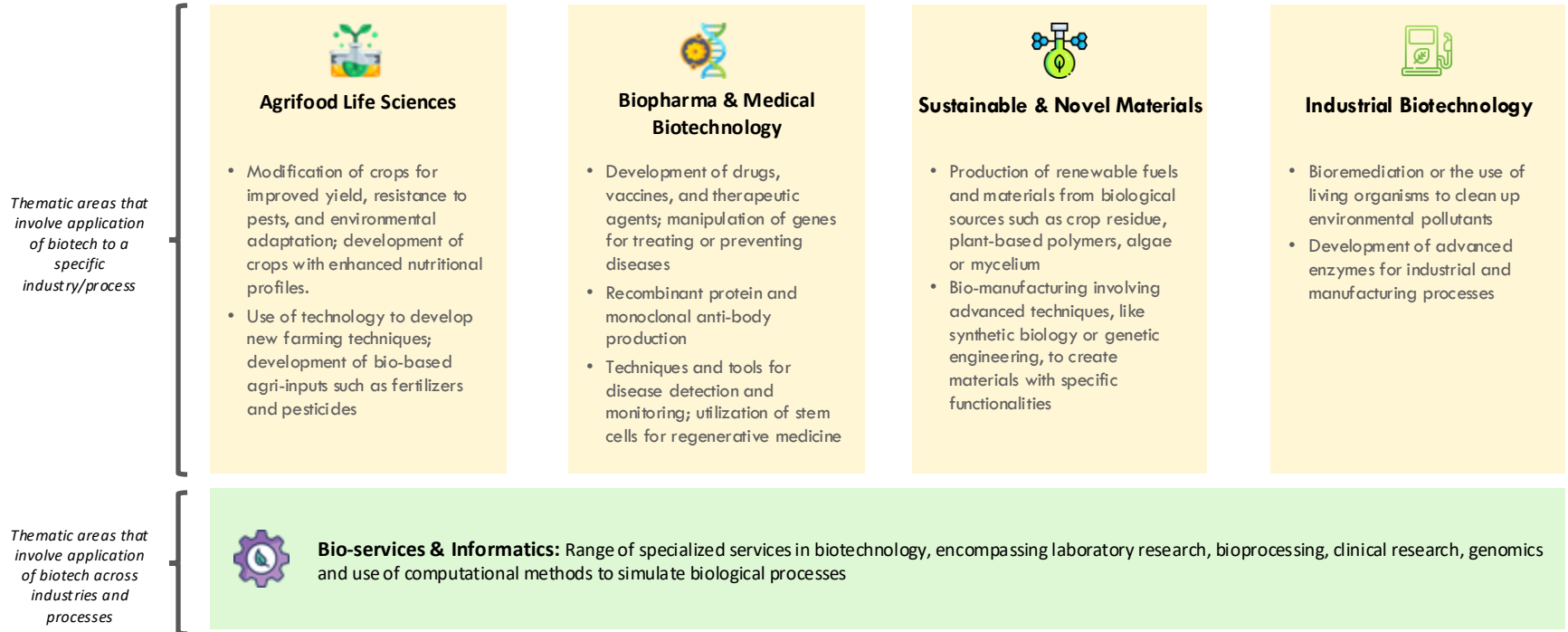
India's life sciences startup ecosystem has shown resilience and growth from 2020-2024, **with total investment reaching USD 1.9 billion across 465 deals**. Despite fluctuations mirroring broader VC trends during and post COVID-19, the sector demonstrates promising diversification beyond traditional applications.

**This report analyses investment trends in life sciences startups over a five-year period, during which:**

- Funding grew from USD 193M in 2020 to USD 269M in 2024, peaking at USD 749M in 2022
- Biopharma & Medical Biotechnology remains the dominant category with 42% of total funding
- Emerging categories like Sustainable & Novel Materials have seen dramatic growth since 2022
- Metro cities attracted >80% of funding, though specialized regional hubs are developing in other cities
- Government initiatives and programs through established incubators have been critical in nurturing early-stage companies

# Categorization of Life Sciences companies

*The term "life sciences" spans a broad spectrum of biotechnology applications across industrial sectors including healthcare, agriculture, materials, and environmental solutions. This report focuses on five strategic categories that best represent India's current bioeconomy landscape.*



# Sources & Methodology

## Data Sources & Curation

This report draws on data from diverse public sources including Tracxn and CrunchBase - platforms that compile information from press releases, regulatory filings, and direct submissions from entrepreneurs and investors. We've included only startups that meet our specific category criteria. The Omnivore and Nucleate teams have carefully verified and refined this dataset to maximize relevance, accuracy, and completeness, acknowledging the inherent limitations of private market information.

While some investment deals remain undisclosed, potentially affecting certain metrics, we are confident that our database provides a representative picture of India's life sciences startup ecosystem.

We encourage sharing our findings, but Omnivore and Nucleate maintain all rights to the material presented in this report and require proper, complete citation when any content is reproduced..

## Undisclosed Financings

Our curated dataset contains 465 financing events, of which 68 had undisclosed funding amounts that couldn't be verified through research or direct sources. These undisclosed financings were excluded from our calculations of average and median values to maintain data integrity.

## Currency Conversion

All figures are reported in USD. We used the prevailing FX rate at the time of transaction.

## Timelines

Funding details typically enter deal databases shortly after their initial public announcement, though in some instances, this information only becomes available months after deal closure. Consequently, subsequent reports may incorporate additional data that wasn't accessible at the time of this publication.

# Summary of key insights: 2020-2024 (1 / 2)

## Investment in the life sciences has fluctuated with mainstream VC trends, but faces slower recovery compared to other sectors

- Total investment in life sciences startups in India grew over the five year period to USD 269M in 2024 from USD 193M in 2020. Investment peaked in 2022 at USD 748M as VCs started writing larger cheques for early stage startups, particularly in bio-informatics (Zifo RnD), health (Molbio Diagnostics) and agrifood life sciences (Absolute)
- This followed the surge in funding activity throughout the start-up ecosystem. Investment activity fell off in 2023 after the failure of multiple VC-backed startups across sectors and industries. The slowdown was reflected in funding for the life sciences as well; funding fell by over 60% between 2022-23
- While investment in other sectors saw a recovery in 2024, funding for the life sciences remained flat going from USD 260M in 2023 to USD 269M in 2024

## Pharma and health have received the major share of funding over the past 5 years; other investment categories are now seeing increased traction

- Biopharma & medical biotechnology received more than 40% of total funding for life sciences startups over the past 5 years. Despite 242 deals in this category, the top 10 accounted for over 50% of the funding. Biopharma manufacturing and CDMO/CRO services accounted for 40% of funding in this category
- Biopharma & medical biotechnology accounted for 61% of total funding in 2020, which declined to 18% of total funding in 2024
- This indicates the rise of other categories, particularly sustainable & novel materials in the light of the climate crisis. Funding for agrifood life sciences and industrial biotech startups has also increased. The combined funding for these categories went from USD 11.5M in 2020 to USD 174M in 2024

# Summary of key insights: 2020-2024 (2/2)

## **Metro cities continue to attract most the funding for life sciences in India but other mid-tier cities are emerging as niche hubs**

- Bengaluru, Delhi NCR, Mumbai and Chennai continue to dominate the funding landscape, attracting 89% of all capital invested in life sciences startups in 2024. However, other mid-tier cities in India are emerging as hubs for life sciences startups
- Pune has established itself as the most significant mid-tier city for life sciences investments in India, with 45 deals totalling USD 124M. Hyderabad maintains a steady presence with 35 deals worth USD 38M over the five-year period. Incubators such as IKP and Venture Centre have nurtured the biotech ecosystem in these cities. Gujarat is developing a strong non-metro life sciences ecosystem with three cities (Ahmedabad, Vadodara and Surat) in the top ten
- Several smaller cities in India including Vadodara, Udaipur and Bhubaneswar are developing specialized niches in the life sciences

## **Early stage investors, even generalist VCs have begun backing startups in the life sciences space. However, a gap in later stage funding persists**

- Seed-stage activity reached a peak of 77 deals in 2021 before declining once more to 62 by 2024. Post the surge in 2022, early-stage investors have been more cautious about taking pre-revenue bets with long gestation periods for product development
- Funding at a Series A stage has remained consistent in terms of deal count across the years (11-14 per year). Total yearly funding for Series A deals declined from USD 72M in 2020 to USD 47M in 2024. Series B funding increased sharply from USD 20M in 2020 to USD 253M in 2022, before declining to USD 48M in 2024
- There have been very few growth stage life sciences deals in India over the past five years; 8 Series C deals and 5 Series D deals. These are almost exclusively in the pharma/health and bio-services space, pointing to the nascency of technologies in other sectors

# Indian life sciences startup funding overview 2020-2024

**USD 1.9B**

TOTAL INVESTMENT

**465**

NUMBER OF DEALS\*

**267**

NUMBER OF  
COMPANIES

**USD 250M**

LARGEST DEAL

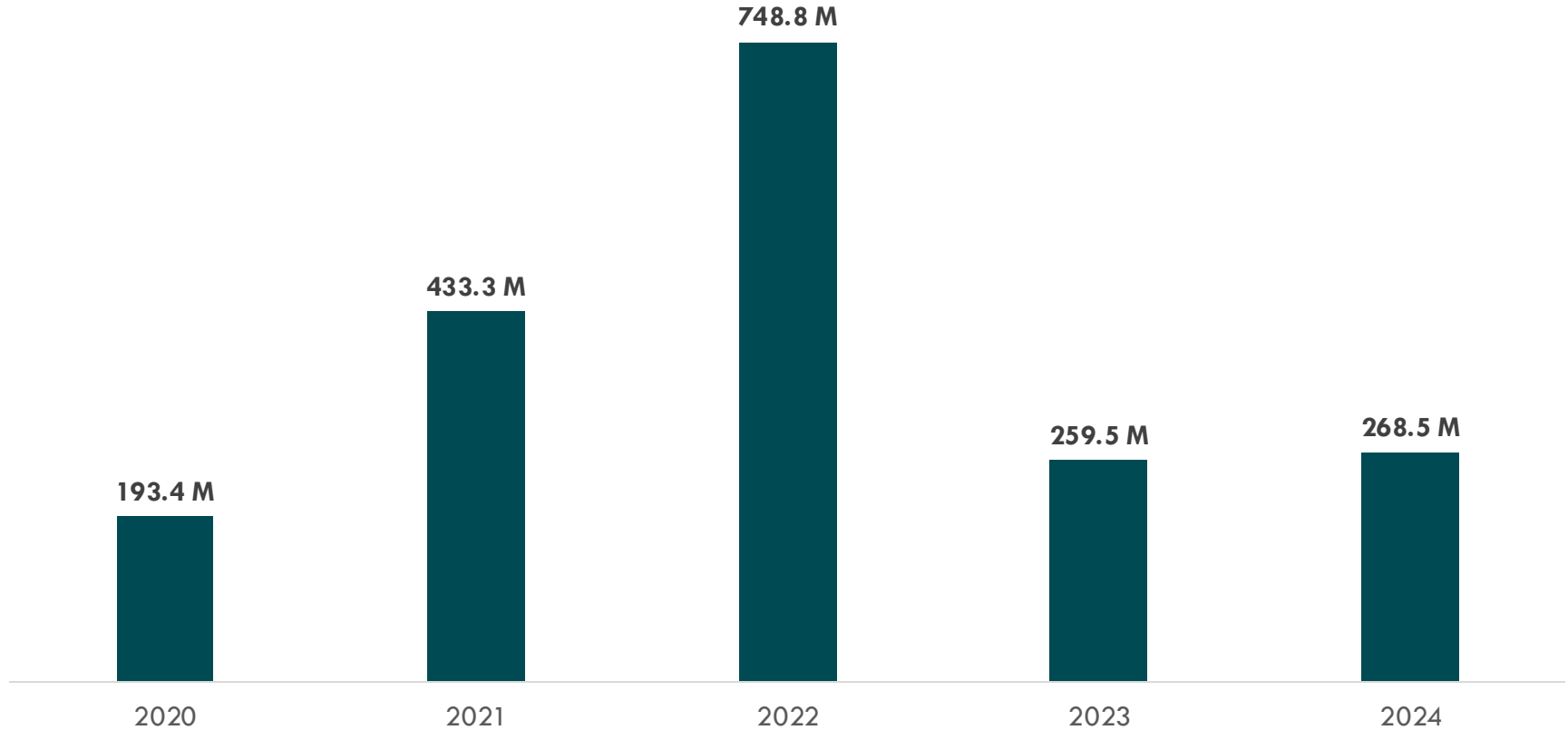
**USD 4.8M**

AVERAGE DEAL SIZE

\*Includes equity deals involving institutional investors. Our data does not include grants and angel rounds.

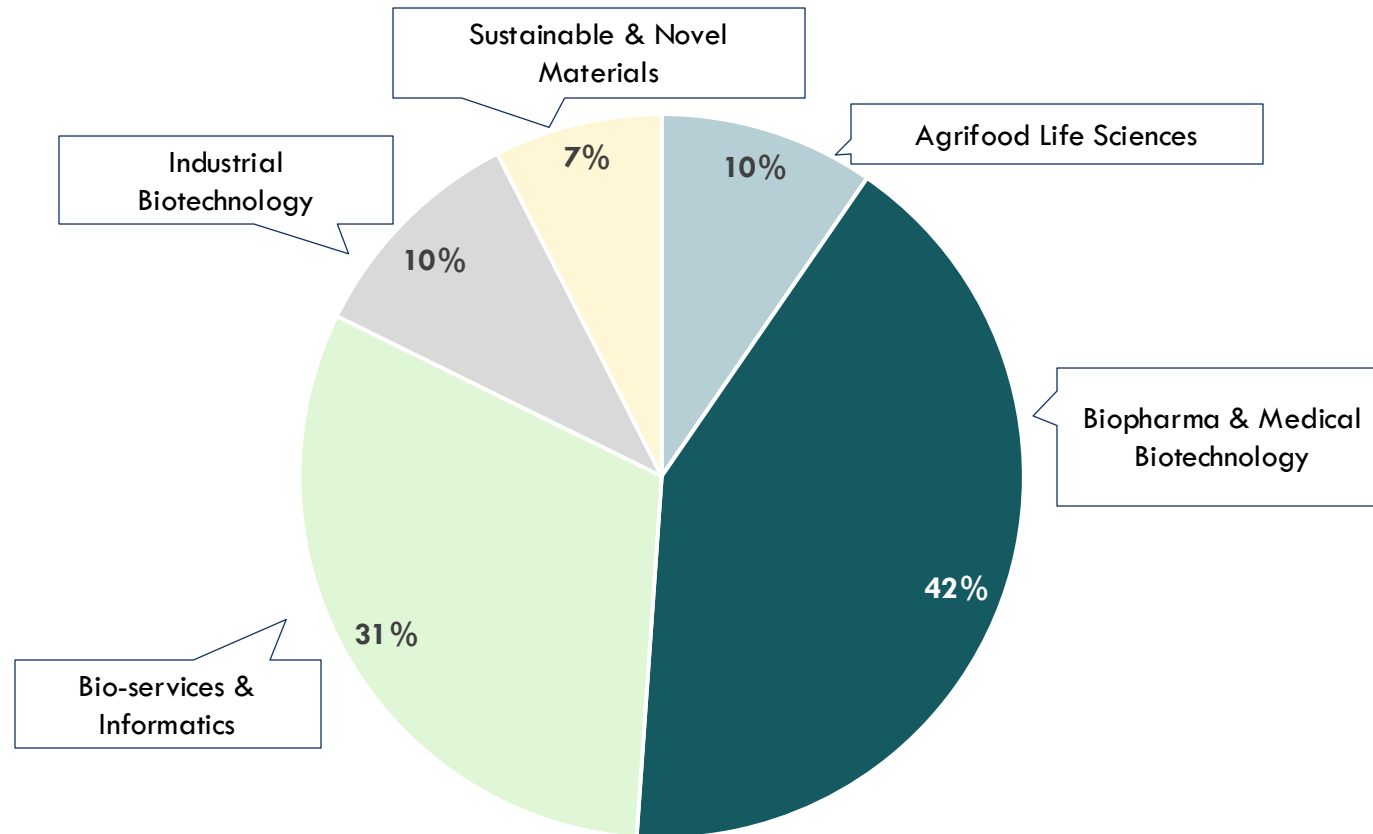


# Annual Financing: 2020-2024



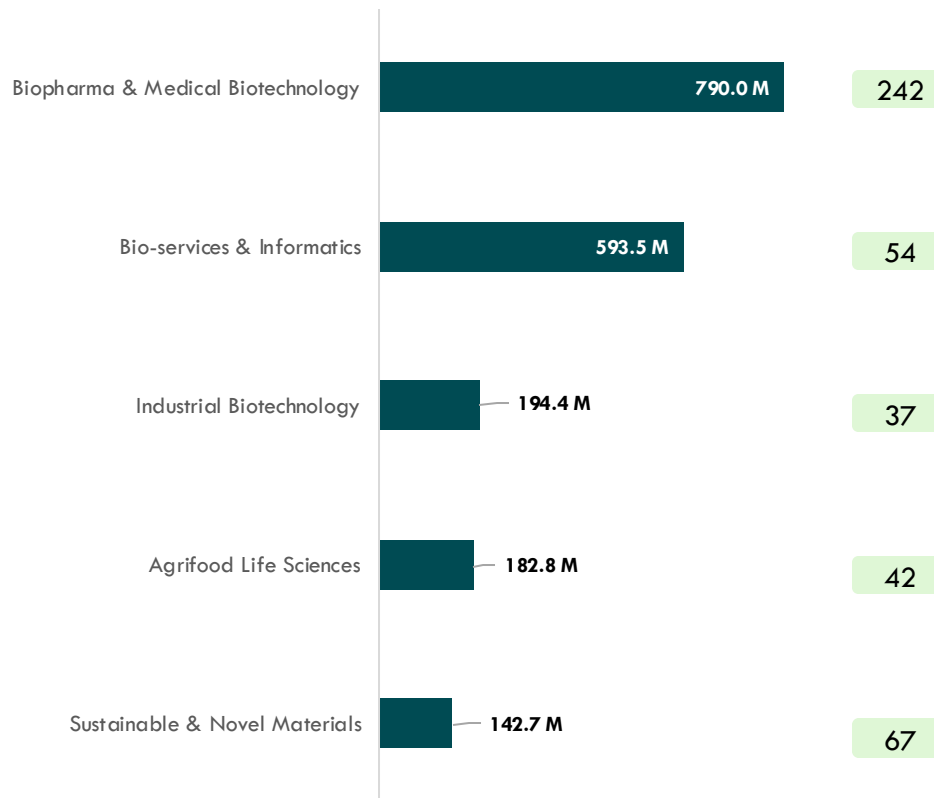
*DEALS BY CATEGORY*

# Deal activity by category: 2020-2024

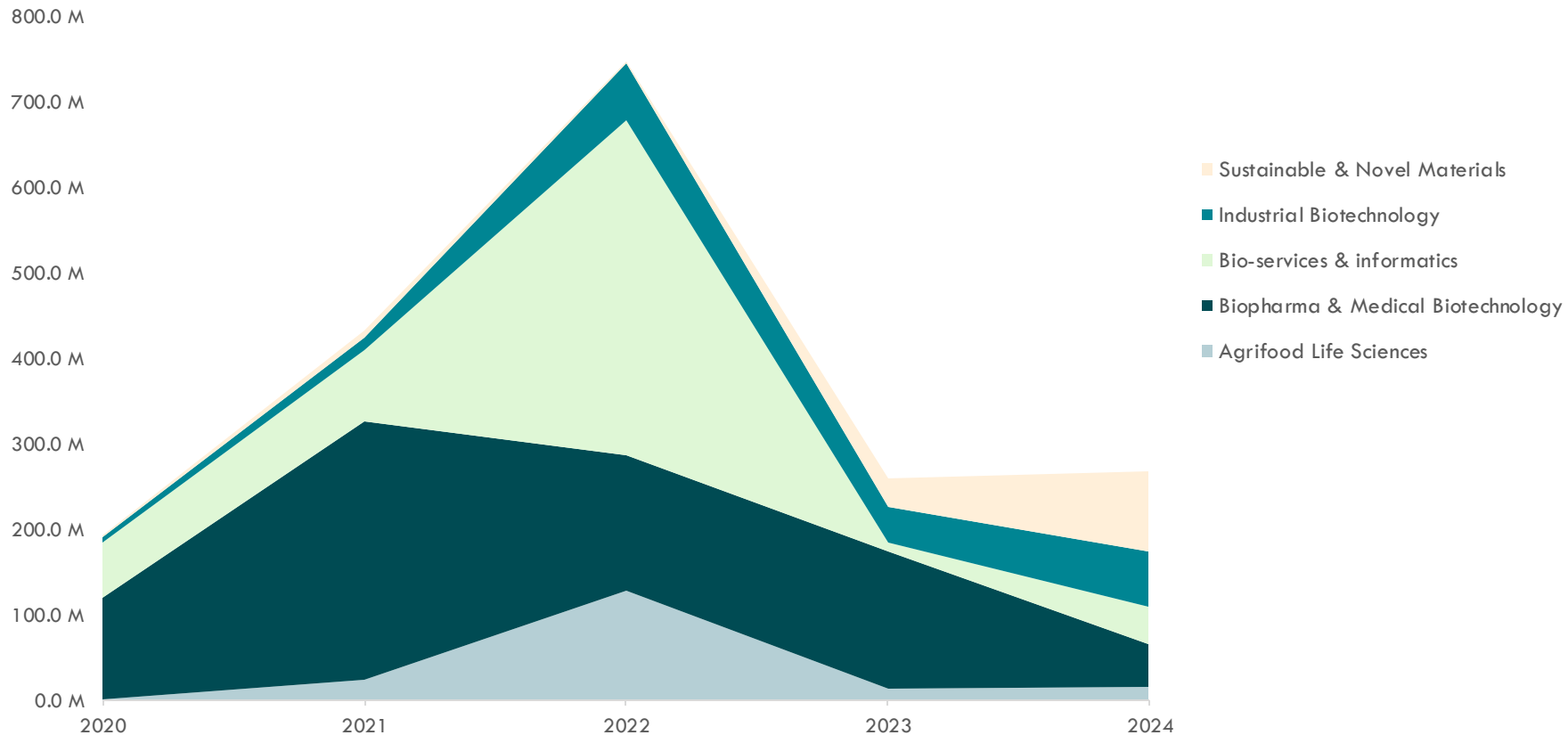


# Key insights by category: 2020-2024

- There were 242 deals in Biopharma & Medical Biotech over the past five years. The top 10 deals drew over 50% of the total funding.
- Bio-services and Informatics was the second most funded category. Here too, one large Series D deal, Zifo RnD Solutions (USD 250M) accounted for 40% of the total funding raised. Other notable deals in this category include Anthem Biosciences, MedGenome, LifeCell and Laurus Bio.
- Agrifood Life Sciences and Industrial Biotechnology have received consistent investor support over the years, particularly from sector-focused funds. There are fewer startups in the industrial biotech segment despite similar funding amount, indicating a larger average deal size, perhaps to account for capex needs
- Sustainable and Novel Materials is a category that has grown tremendously in the past two years after . Funding grew from USD 3M in 2022 to USD 34M in 2023 and USD 95M in 2024

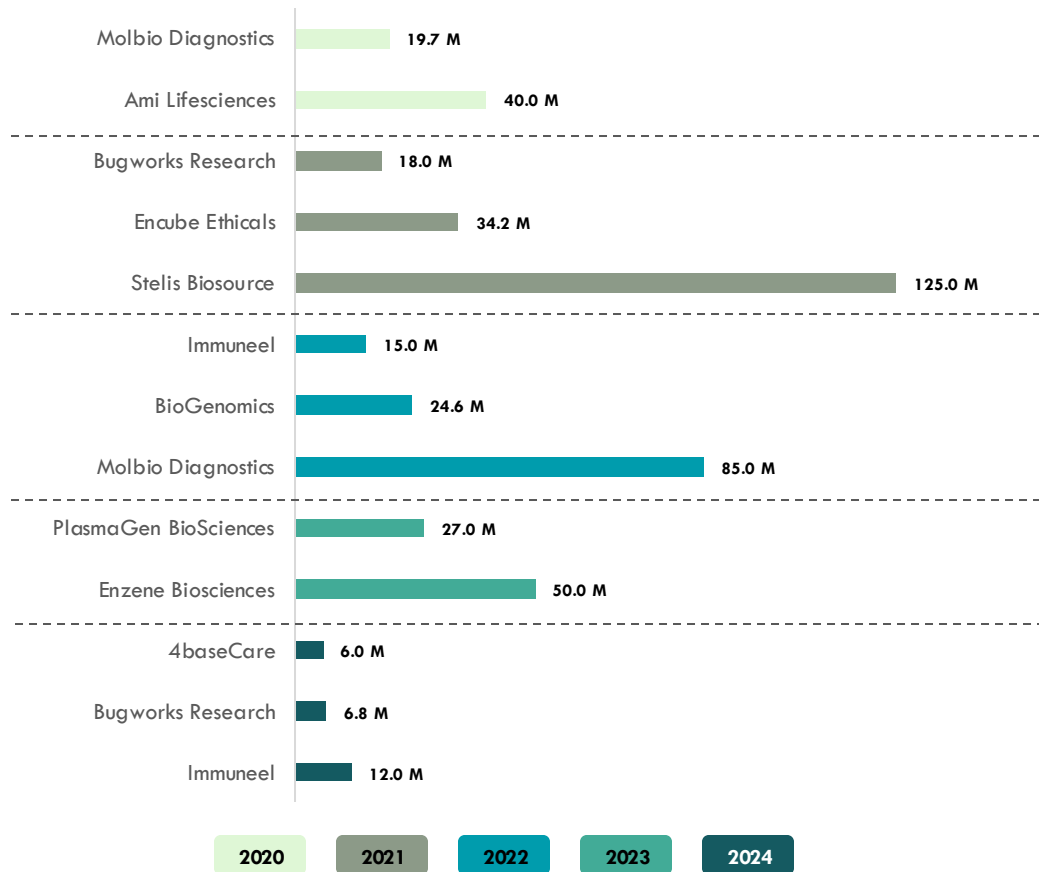


# Annual funding by category (USD M): 2020-2024

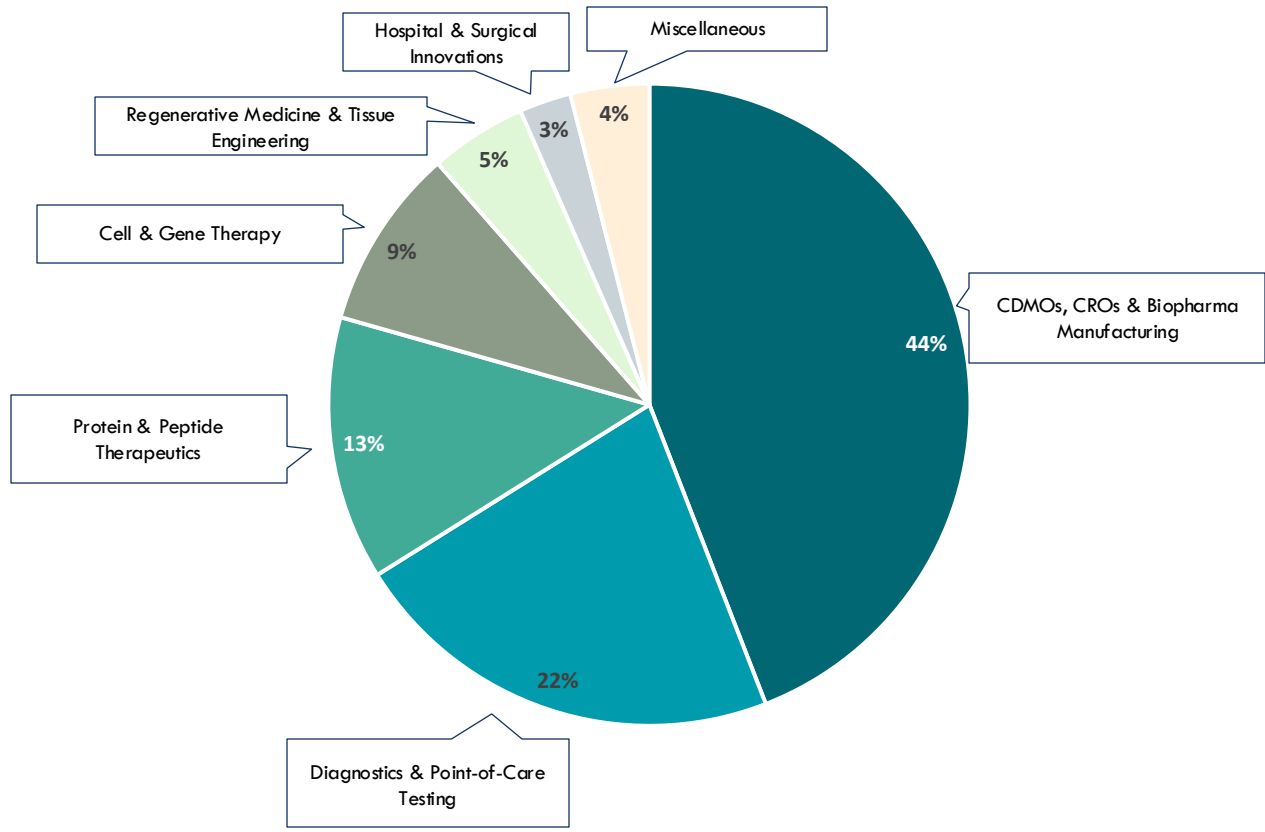


# Top deals in Biopharma & Medical Biotech

- Biopharma & Medical Biotech has consistently been the highest funded category within life sciences start-ups in India. Of the USD 790M invested here, over 40% of funding has gone to CDMOs, CROs and Biopharma manufacturing companies. Stelis Biosource (backed by TPG), Enzene Biosciences (backed by Eight Roads) and Ami Lifesciences (backed by Kedaara Capital) are the most funded companies in that sub-category within India.
- Bugworks Research founded in 2014 and incubated at C-CAMP was one of the first life sciences companies to raise substantial capital from generalist VCs. Lightrock India led their Series B round in 2022 and 3one4 Capital had previously invested in the company
- Molbio Diagnostics raised over USD 120M between 2020 and 2022, backed by Temasek and Motilal Oswal Financial Services
- Cancer research and therapeutic development is emerging as a category in India. Immuneel, a company developing T-Cell therapies for cancer treatment has raised over USD 40M between 2020 and 2024



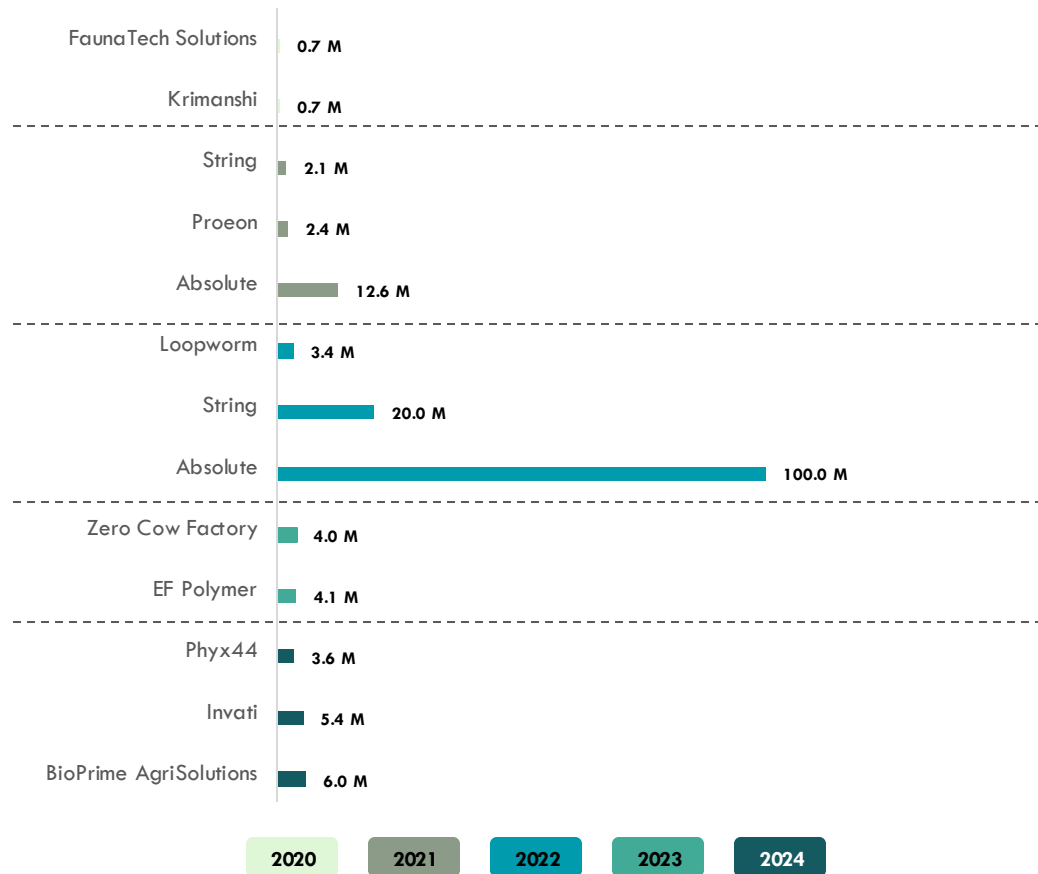
# Biopharma & Medical Biotech by subcategory



*\*The miscellaneous category includes the following themes where there were too few companies for individual coverage: 3D Printing in Medicine, AI-Driven Drug Discovery & Biologics, RNA & Nucleic Acid-Based Therapies , Bioengineered Drug Delivery Systems, Medical Devices & Implantables and Wearables & Implantable Biosensors*

# Top deals in Agrifood Life Sciences

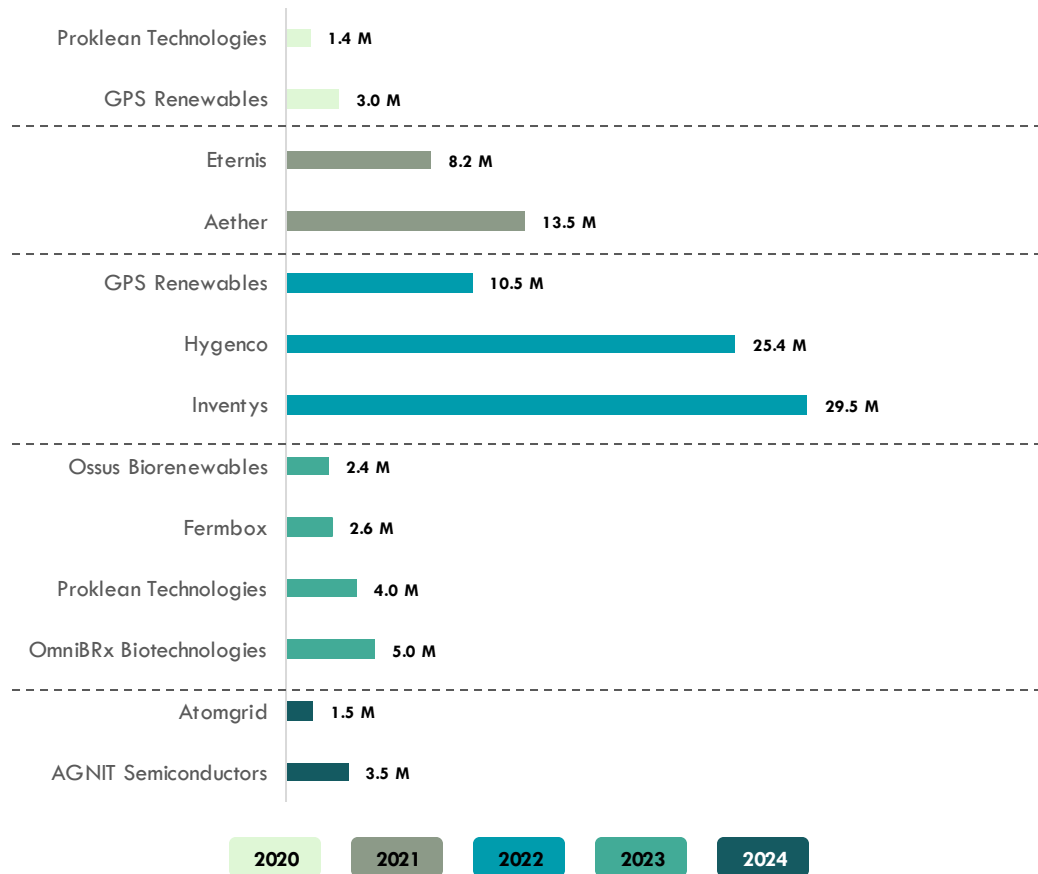
- Agrifood Life Sciences companies range from novel farming systems and agricultural biotechnology to innovative food products like cell-cultivated meat and dairy.
- Companies in animal and crop health are the most funded in this space, including Absolute (backed by Peak XV), String (backed by Ankur Capital) and BioPrime (backed by Omnivore). Absolute accounts for more than half of the total funding raised by all companies in the category.
- Insect Protein companies began to attract investments in India from 2022 onwards. Loopworm was one of the early movers in this space with a round led by Omnivore and WaterBridge Ventures
- Investment in alternative protein companies has also been on the rise. Some of these include Proeon (backed by Peak Sustainability Ventures), Zero Cow Factory (backed by Green Frontier Capital and Pi Ventures) and Phyx44 (backed by Avaana Capital)





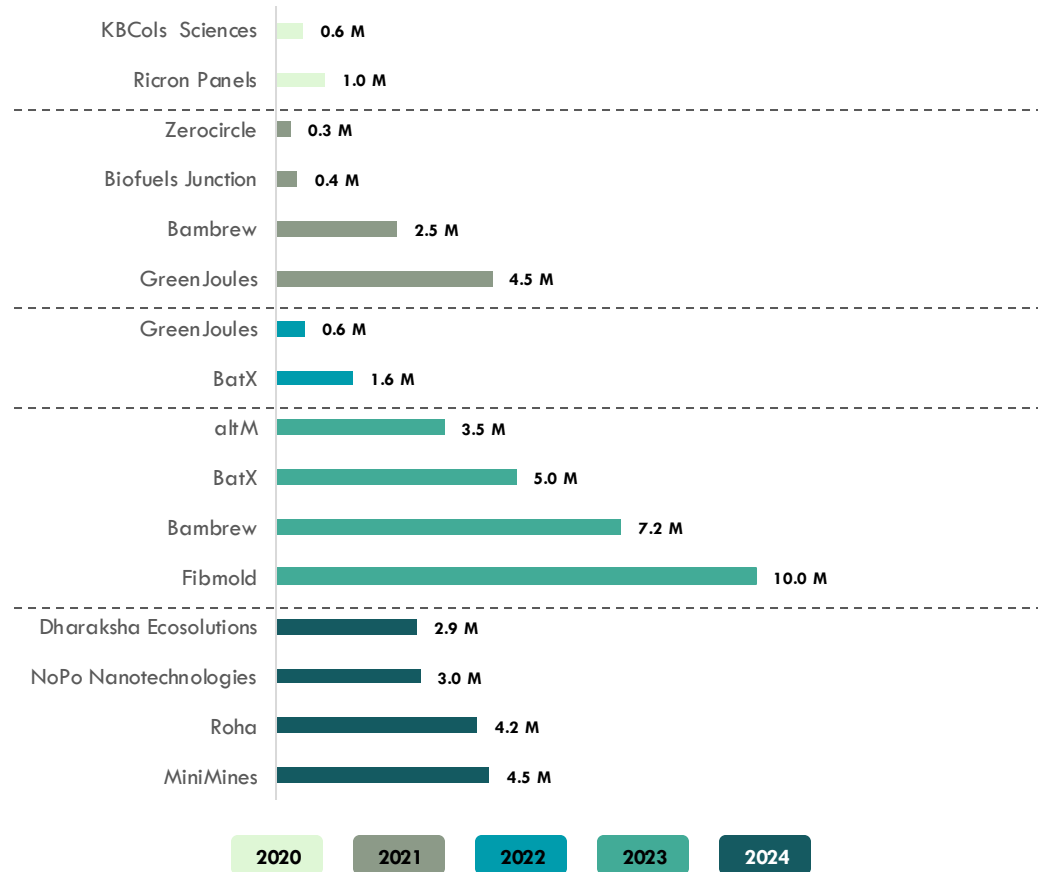
# Top deals in Industrial Biotech

- From 2020 onwards, research in biotechnology began to expand with use cases developed for other industries. GPS Renewables raised over USD 20M to build a full-stack biogas engineering company
- 2022 saw a number of large rounds in industrial biotech startups. Hygenco (manufacturing green hydrogen) raised a round from Neev Fund and Inventys raised funding from Plutus Wealth Management
- The interest in green hydrogen has continued; Ossus Biorenewables, generating green hydrogen from industrial wastewater, raised funding from Rainmatter in 2023
- Fermbox, a developer of products based on precision fermentation was backed by 3one4 and Speciale Invest in 2023. AGNIT Semiconductors, which manufactures GaN substrates, also received funding from 3one4 in 2024



# Top deals in Sustainable & Novel Materials

- The move towards circularity and reduction of plastics and petrochemicals in supply chains has fueled increased funding towards material science innovations over the past 2 years
- Early movers in the space back in 2020 include KBCol Sciences, a bio-colour company incubated by Venture Centre and funded by Chiratae and Axilor Ventures
- The use of agricultural waste as a feedstock has seen increasing traction: Zerocircle manufactures plastic alternatives from seaweed and GreenJoules manufactures sustainable biofuel from agricultural waste. This category has received particularly funding the the past two years – Fibmold and Bambrew raised large rounds in 2023
- The rise of the EV industry has also prompted the rise of material science innovation around carbon and battery technology – NoPo Nanotechnologies, BatX and MiniMines are key funded companies in this space

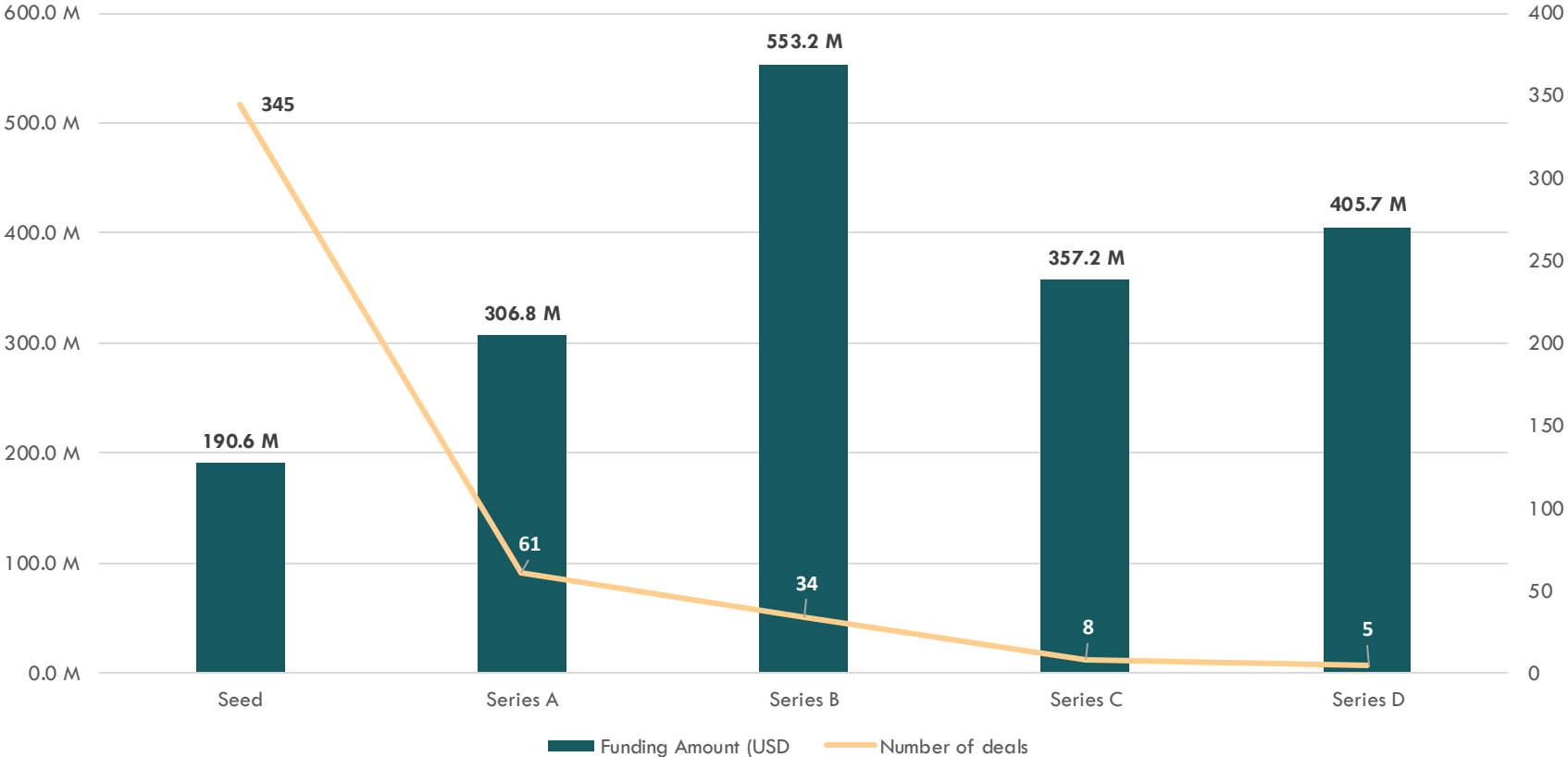


## *DEALS BY STAGE*

# Key insights by stage

- Confidence in the Indian startup ecosystem and the deeptech industry has led to increased investing activity in the life sciences from early-stage investors, including generalist domestic VCs. Seed-stage activity reached a peak of 77 deals in 2021 before declining once more to 62 by 2024. This is reflective of broader funding trends observed in the startup ecosystem, particularly with regard to deeptech interventions. Early stage investors have become more cautious about taking pre-revenue bets with long gestation periods and an absence of follow-on funding rounds
- Funding at a Series A stage has remained consistent in terms of deal count across the years (11-14 per year). Total yearly funding for Series A deals declined from USD 72M in 2020 to USD 47M in 2024. The absence of growth in Series A funding signals that most seed-stage companies still lack access to follow-on capital and could struggle with commercialization. Series B funding increased sharply from USD 20M in 2020 to USD 253M in 2022, before declining to USD 48M in 2024
- There have been very few growth stage life sciences deals for startups in India over the past five years; 8 Series C deals and 5 Series D deals. These deals are almost exclusively in the Biopharma & Medical Biotechnology or Bio-services & Informatics classification, pointing to the nascency of technologies in the agrifood life sciences, industrial biotech and sustainable materials
- The biggest late-stage rounds are Zifo RnD Solutions (Series D, USD 250M), Stelis Biosource (Series C, USD 125M) and Molbio Diagnostics (Series C, USD 85M), all in 2021-22. These rounds point to the advanced ecosystem around biopharma manufacturing, research and diagnostics in India

# Deal volume & activity by stage (2020-2024)



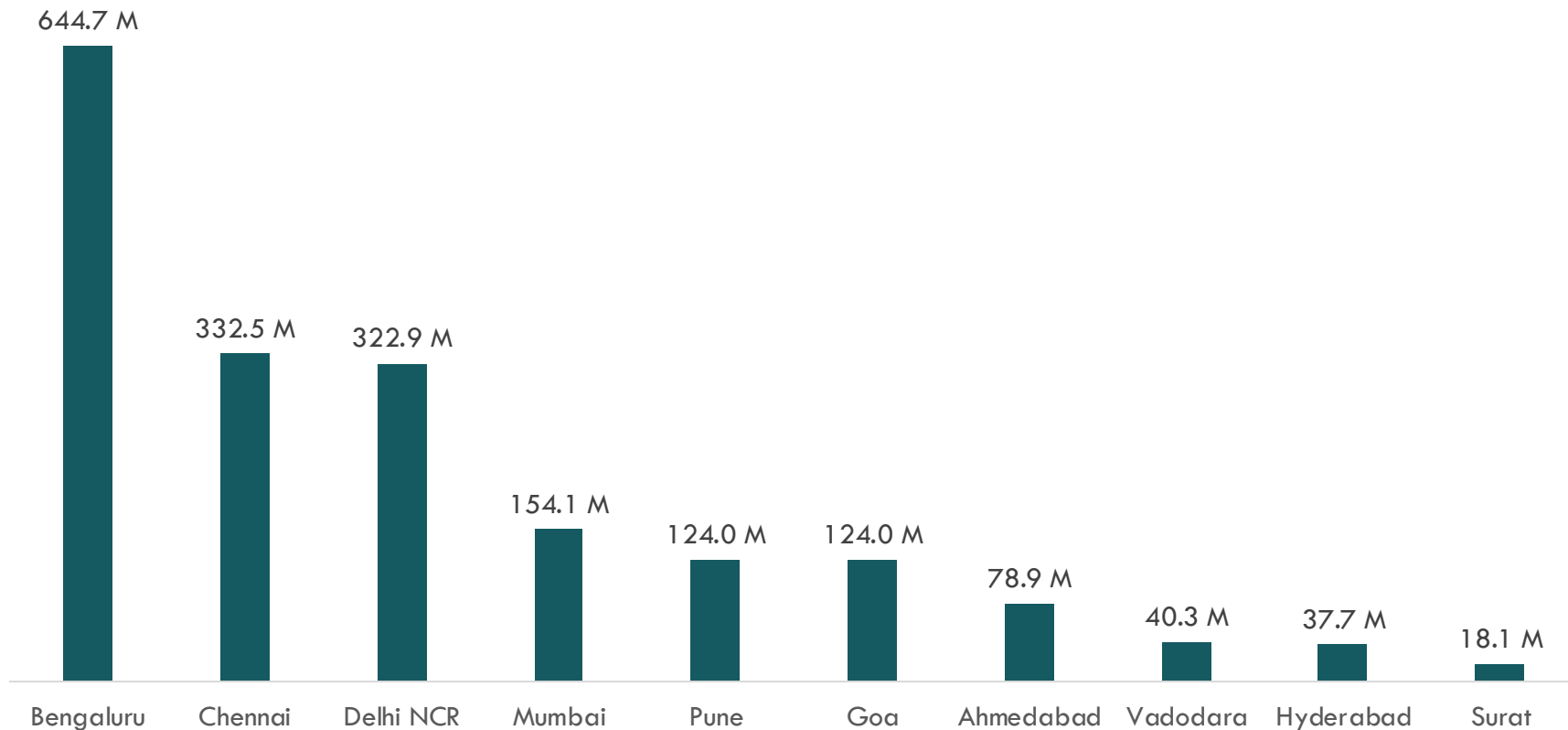
*\*Does not include unattributed deals (funding round unclear or not indicated)*

*DEALS BY GEOGRAPHY*

# Investment trends in Indian cities

- Bengaluru, Delhi NCR, Mumbai and Chennai continue to dominate the funding landscape, attracting 90% of all capital invested in life sciences startups in 2024. However, other mid-tier cities in India are fast emerging as hubs for life sciences startups
- Pune has established itself as the most significant mid-tier city for life sciences investments in India, with 45 deals totalling USD 124M. The city experienced a remarkable funding surge in 2023. Pune is a strong alternative to the traditional metro hubs benefiting from proximity to Mumbai but with lower operating costs, strong educational and research institutions (including Venture Centre as a life sciences incubator) and a growing pharmaceutical manufacturing base
- Hyderabad maintains a steady presence with 35 deals worth USD 38M over the five-year period. While not showing dramatic growth, its consistency demonstrates the city's established position in India's life sciences landscape, supported by a legacy pharmaceutical manufacturing presence, government initiatives like Genome Valley and research institutions and biotech incubators (IKP)
- **Gujarat** appears to be developing a strong non-metro life sciences ecosystem with three cities (Ahmedabad, Vadodara and Surat) in the top ten. Despite a relatively modest deal count (11), Ahmedabad secured an impressive USD 80M in funding. With an average deal size of USD 6.5M (compared to Pune's USD 2.6M), Ahmedabad appears to be attracting more mature, higher-value life sciences investments
- Several smaller cities in India are developing specialized niches in the life sciences:
  - **Vadodara, Gujarat:** Pharmaceutical manufacturing strength exemplified by Ami Lifesciences' USD 40M Series A
  - **Udaipur, Rajasthan:** Emerging sustainability focus with companies like Angirus (sustainable building materials) and EF Polymer (agricultural innovations)
  - **Bhubaneswar** shows remarkable consistency with deals in all five years analyzed
  - **Salcete, Goa:** Home to Molbio Diagnostics, which raised USD 124M across three rounds, focusing on diagnostic technology

## Top 10 regions in India for life sciences funding (2020-2024)





## *INVESTOR ACTIVITY*

# Key insights on investor activity

- The life sciences space in India has experienced growing participation from early-stage generalist investors. The investment thesis is largely driven by a belief in the future of manufacturing and optimism about India's deeptech ecosystem. Over the past five years, funds such as Blume, 3one4 Capital, Accel and Peak XV have all made life sciences investments across the five sub-categories
- Government sponsored programs and incubators including BIRAC, C-CAMP, SINE, IKP, Bangalore Bioinnovation Centre, and Venture Centre have been critical in getting companies to a stage where they attract institutional capital.
- Other entities that provide such early stage targeted funding include LetsVenture, Social Alpha, Indian Angel Network (with the BioAngels program), and Mumbai Angels. They have collectively funded over 60 life sciences deals between 2020 and 2024
- On the biopharma and medical biotechnology side, Eight Roads Ventures that invests alongside F-Prime Capital (a global investor) has been an early supporter of startups including Immuneel, Enzene Biosciences and Elucidata. Axilor, pi Ventures and Accel have also been fairly active in this space.
- The agrifood life sciences and material science innovations space has been dominated by sector-focused funds like Omnivore (BioPrime, altM), Rainmatter (Zerocircle, Ossus Biorenewables) and Ankur Capital (String, MyoWorks). Mainstream funds have also completed large deals in this segment, including Peak XV Partners (USD 100M, Absolute) and Accel (USD 10M, Fibmold)
- Corporate funding for life sciences startups is still limited, particularly outside the biopharma & medical biotech category. The Piramal Group, Sun Pharma, Infosys and Kotak Mahindra Bank are corporates that have consistently invested in biotech startups (mainly in the pharma and health space) over the past five years

# Key venture funds and platforms for life sciences funding (1 / 2)

Fund name	Key companies funded	Number of deals
<b>Indian Angel Network</b>	Ahammune Biosciences, Transcell Biologics, Serigen, Nanosafe Solutions, Pandorum, Transcell, Nayam Innovations, Carbonlites, Yostra, GreenPod Labs, Astrek Innovations, MIMYK	25
<b>LetsVenture</b>	Zerocircle, immunitoAI, Bambrew, Molequle, BatX, Efeed, D-NOME, Dharaksha Ecosolutions, Mivipro, Strawcture, Absolute, Xfinito Biodesigns, Epigeneres, Erly Sign, Mynvax, Ameliorate Biotech	17
<b>Social Alpha</b>	Carbon Craft design, Strawcture, Angirus, Capsber Agriscience, Mivipro, MedPrime Technologies, Rymo Technologies, Mocxa, Canvaloop, BlackFrog Technologies, Krimanshi, Crimson Healthcare	16
<b>Axilor Ventures</b>	MicrobioTx, NoPo Nanotechnologies, Algorithmic Biologics, Niramai, KBColS Sciences, SigTuple, Orbuculum	12
<b>Mumbai Angels</b>	Bambrew, Vgenomics, Ayati Devices, Mestastop, MedPrime Technologies, Crimson Healthcare	9
<b>Omnivore</b>	BioPrime AgriSolutions, altM, Fibmold, Efeed, Loopworm	9

## Key venture funds and platforms for life sciences funding (2/2)

Fund name	Key companies funded	Number of deals
<b>Chiratae Ventures</b>	KBCols Sciences, SigTuple, Redcliffe Genetics, Welnnovate Biosolutions, Axio	7
<b>Accel</b>	Fibmold, SigTuple, Zumutor, Axio, Mynvax	7
<b>Rainmatter</b>	Zerocircle, Devigere Biosolutions, Amwoodo, Niramai, Ossus Biorenewables	6
<b>Eight Roads Ventures</b>	Laurus Bio, PlasmaGen BioSciences, Enzene Biosciences, Elucidata, Immuneel	6
<b>pi Ventures</b>	Ahammune Biosciences, immunitoAI, Niramai, Zero Cow Factory, SigTuple	6
<b>Ankur Capital</b>	D-NOME, MyoWorks, Offgrid Energy Labs, Piatrika Biosystems, String	6
<b>F-Prime Capital</b>	Laurus Bio, PlasmaGen BioSciences, Enzene Biosciences, Elucidata, Immuneel	5



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*BioWave is an initiative aimed at shining a spotlight on India's bioeconomy and accelerating VC investment into the sector. BioWave is founded by Omnivore, Nucleate, and IndieBio and supported by BIRAC, C-CAMP, IKP, the Bangalore Bioinnovation Centre, Venture Center, and SINE (IIT Bombay)*

