

Pharma Services in North America –

Where have all the Entrepreneurs Gone?



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Current Industry Dynamics

The Pharma Services industry continues to exhibit robust growth from increasing outsourced R&D spend by pharmaceutical companies

State of the Pharma Services Industry

- Pharma industry growth continues to be extremely strong driven by strong R&D spending and booming advanced therapies arena
- Robust demand for pharma services has caused a substantial supply and demand gap resulting in pharma services providers struggling to keep up with demand in certain areas
 - These dynamics have driven frothy valuations and surging M&A activity
- Larger integrated CDMOs, CROs, and Analytical Services providers are now larger than ever
 - Leaving relatively few middle-market players in the industry, which has created an imbalance in the pharma services sector between large and small players

Is the next generation of pharma services entrepreneurs coming?

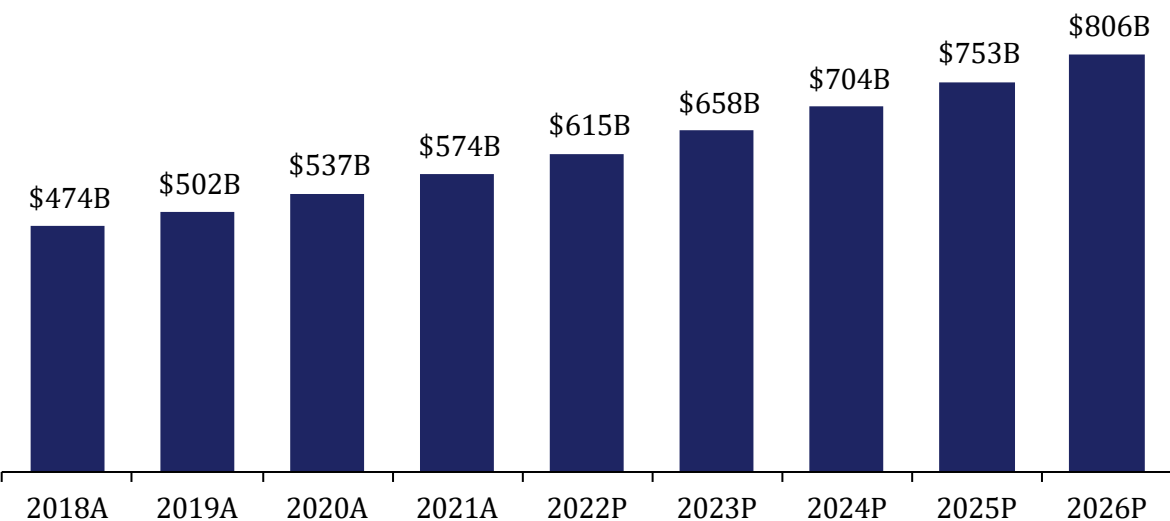


LET'S START BY LOOKING AT THE DYNAMICS
DRIVING PHARMA SERVICES DEMAND

Strong Pharma Growth and Spending on R&D Driving Demand for Pharma Services

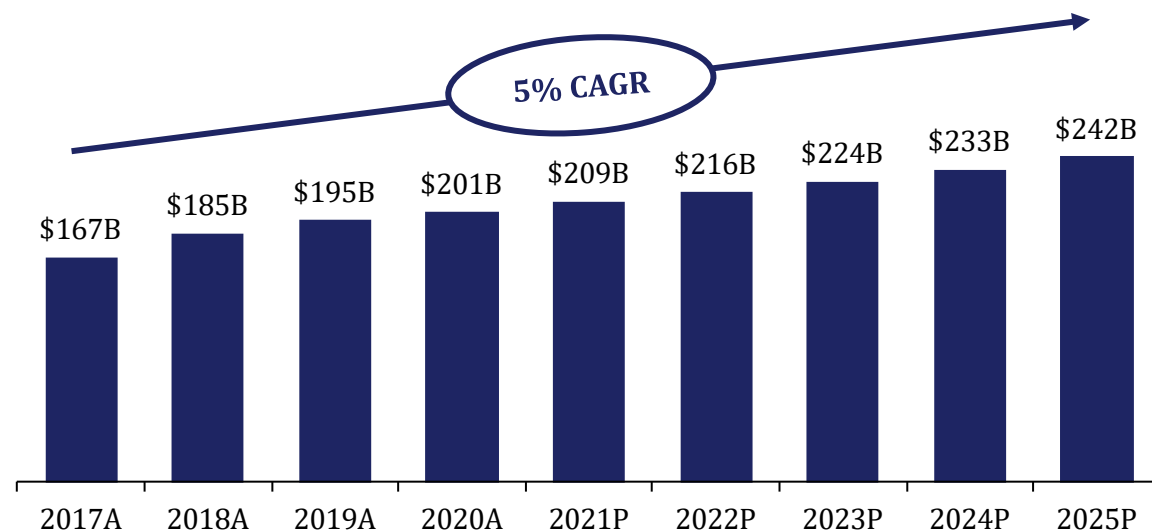
North American Pharmaceutical Market

- The North American pharma market is expected to grow at a CAGR of 7% through 2026 driven by increasing demand for personalized medicine
- Drug developers are continuing to look to industry partners to keep up with demand and manage costs



Global Pharmaceutical R&D Budgets

- Prior to COVID-19, in 2019 the pharmaceutical industry spent roughly 10x more than it spent per year in the 1980s on an inflation-adjusted basis⁽¹⁾
- On average, pharmaceutical companies spent about 20% of their revenue on R&D in 2021



VC Biotech Funding Creates “Flow Through” to Pharma Services Sector

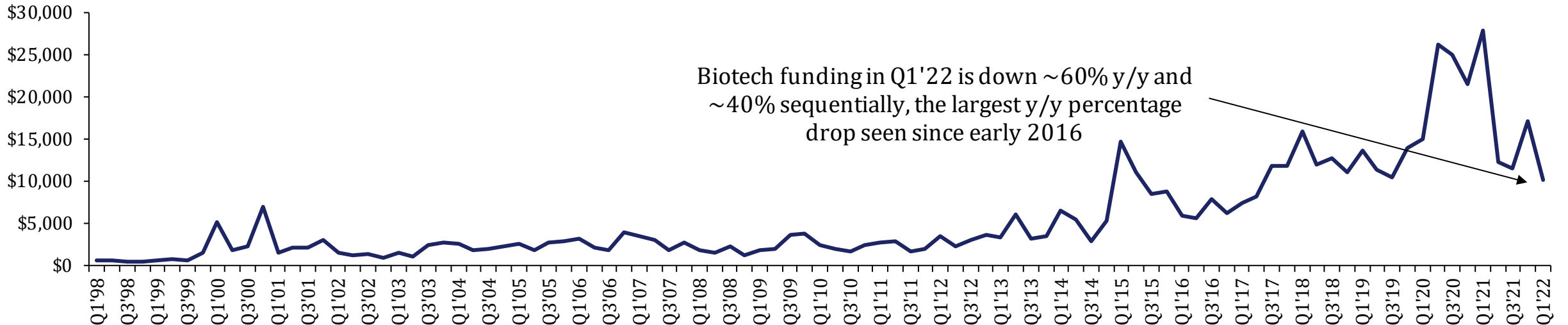
Strong Biotech and Pharma VC funding has continued to accelerate growth in the Pharma Services sector

Historical Biotech Venture Capital Funding

- Biotech startups experienced a substantial influx of venture capital in 2020 and 2021, which is expected to pull back through the end of 2022 to pre-pandemic levels
- Outsourced pharma services will continue to experience growth driven both by VC-backed startups and big pharma

Total Biotech Industry Funding (*Venture and Follow-On*)

(\$ in millions)



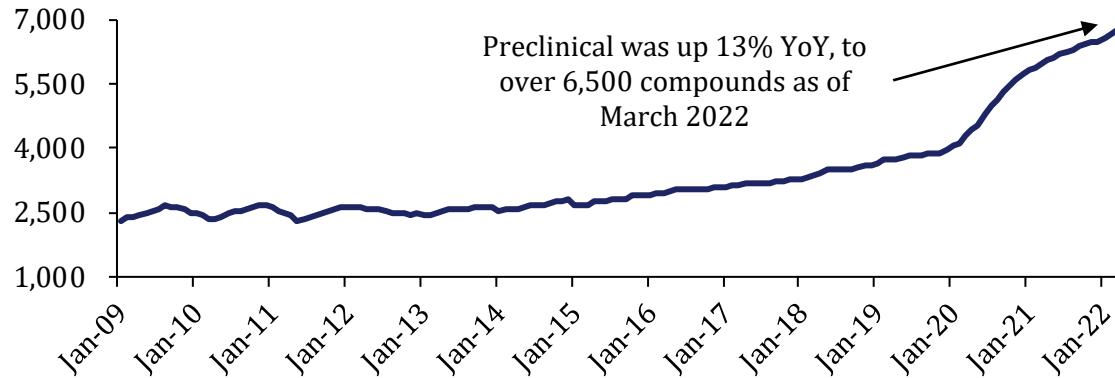
Source: BioCentury, William Blair



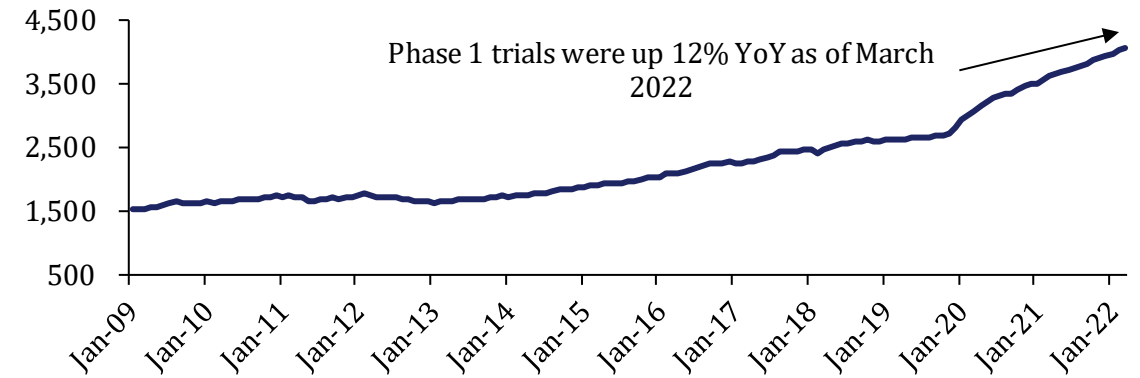
Staggering Increase in New Therapeutics and Trial Activity

The drug development pipeline remains strong and is expected to drive continued demand in the pharma services sector

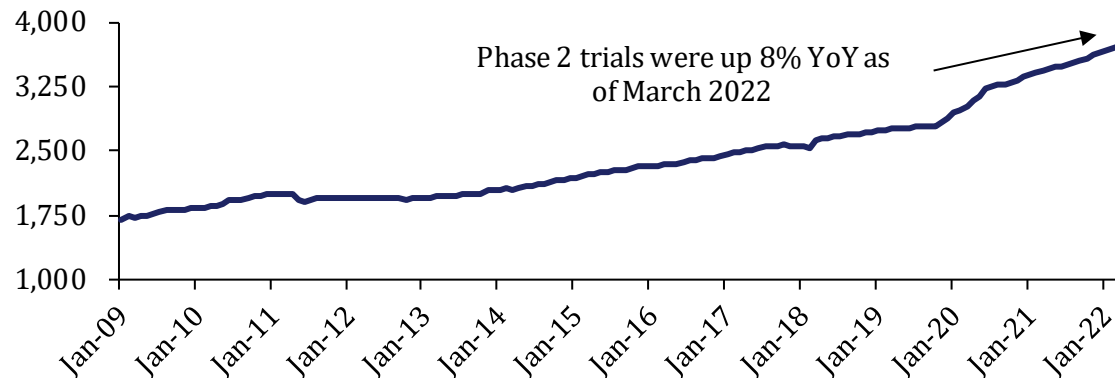
Preclinical



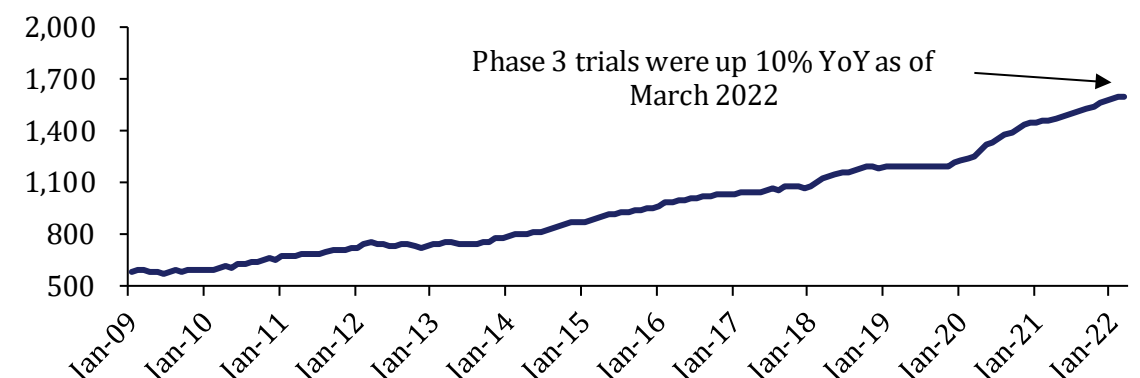
Phase I



Phase II



Phase III



Source: BioCentury, Inc.; William Blair Equity Research

Note: ~50% of the drug product pipeline is composed of large molecule products however, they are primarily in the preclinical and phase 1 stage

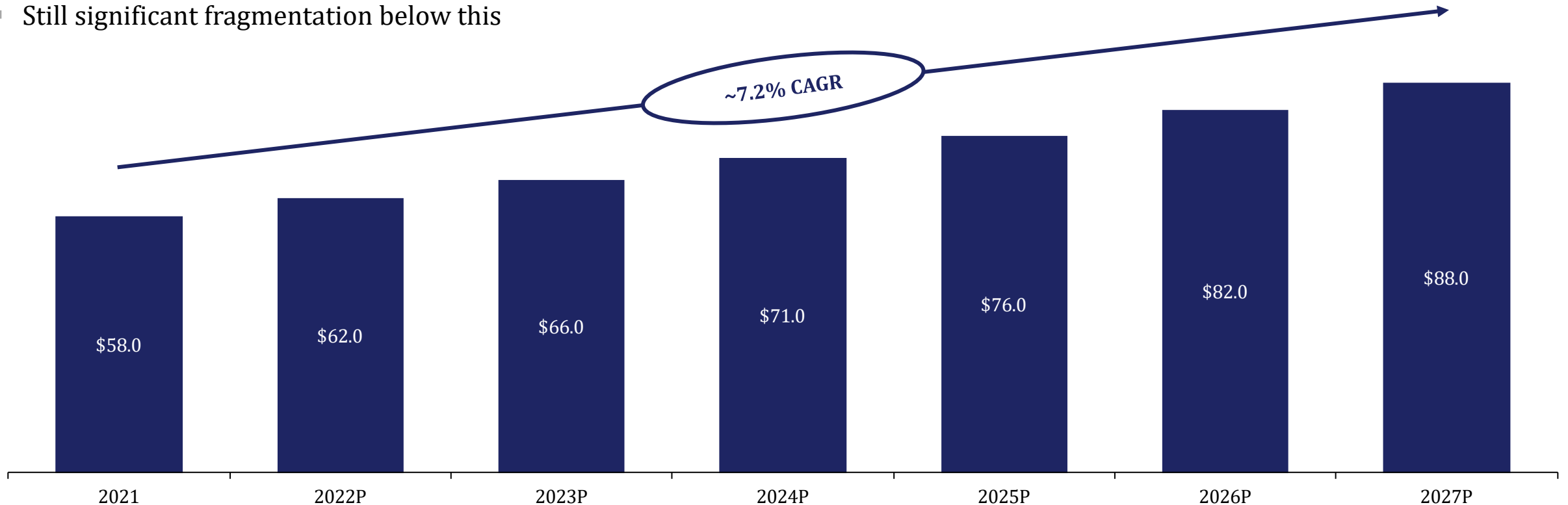


Continued Strong Growth Projected in CRO Market

The CRO market is expected to exhibit strong growth trends due to increasing R&D spend and outsourcing

Global CRO Market Growth (\$ in billions)

- Top 5 CRO's account for ~60% of total outsourced market.
- Still significant fragmentation below this

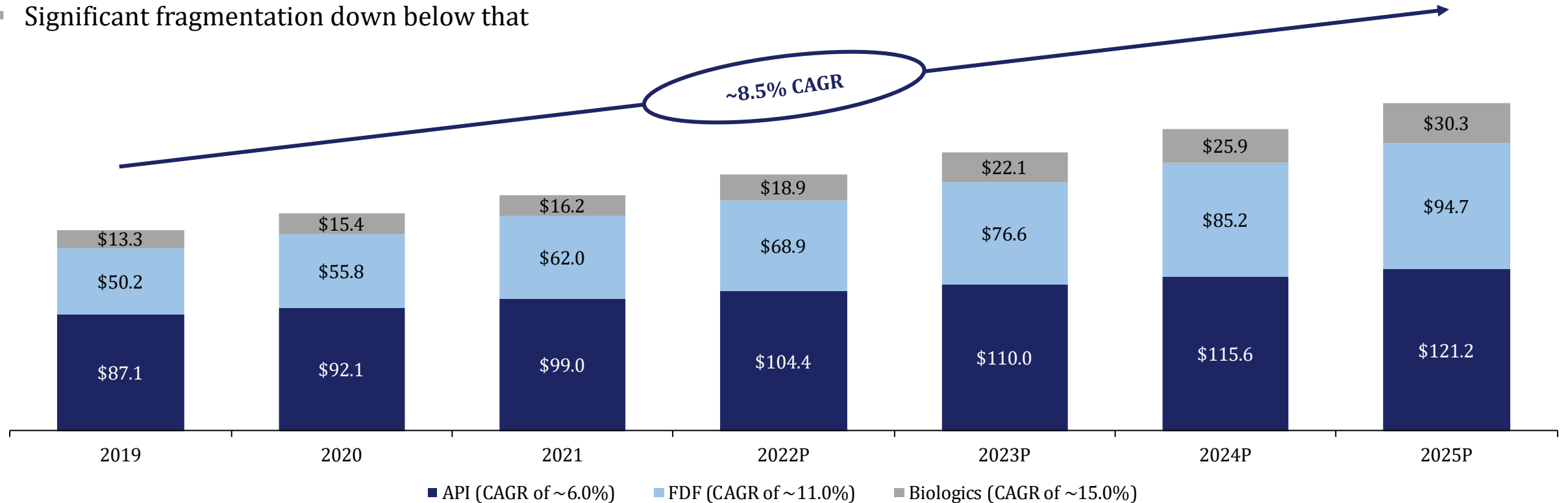


....and Healthy Growth Also Projected in CDMO Market

The CDMO market is expected to exhibit similar growth trends to the CRO market due to drug development growth and outsourcing dynamics

Global CDMO Market Growth (\$ in billions)

- Top 5 CDMO's own around 20% of the total market
- Significant fragmentation down below that

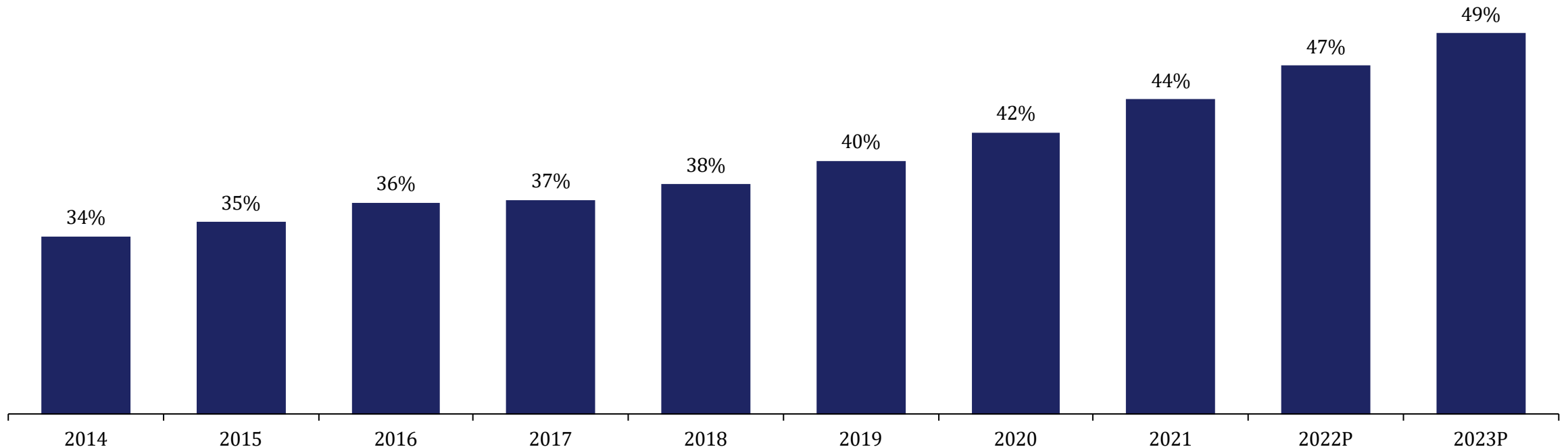


Outsourced Penetration in CRO Continues Steady Growth

Increased outsourcing of R&D by larger pharmaceutical companies will continue to drive growth in the pharma services sector

Global CRO Market Penetration Rate

- Although pharma companies continue to invest in R&D globally, the returns from drug R&D have been decreasing
- Large pharma companies are favoring outsourcing more of their pharmaceutical research



Source: Results Healthcare; Lincoln International



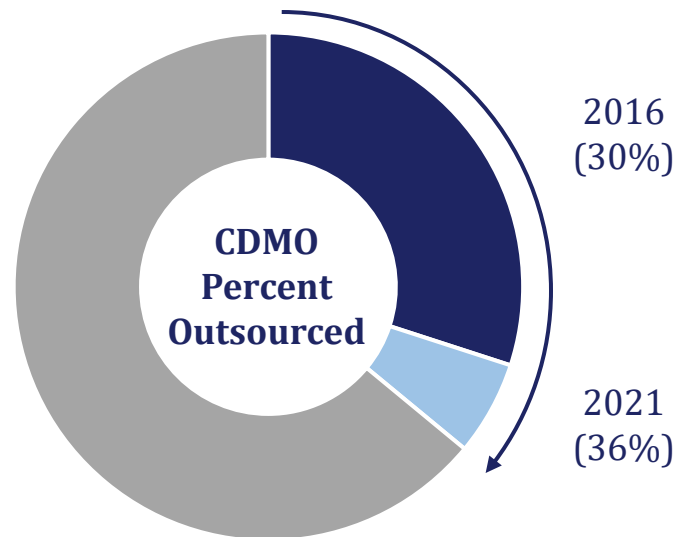
.....and Outsourced Penetration in CDMO Also on the Rise

The CDMO sector is about 2/3 as penetrated as is the CRO sector. More room for expansion here.

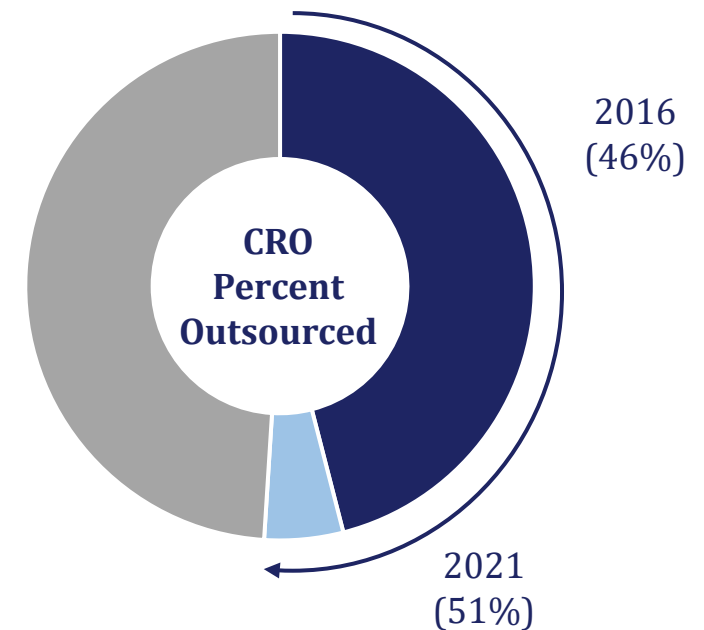
Global CDMO & CRO Outsourced Penetration Rate

- Although pharma companies continue to invest in R&D globally, the returns from drug R&D have been decreasing
- Large pharma companies are favoring outsourcing more of their pharmaceutical research and manufacturing

CDMO Trends



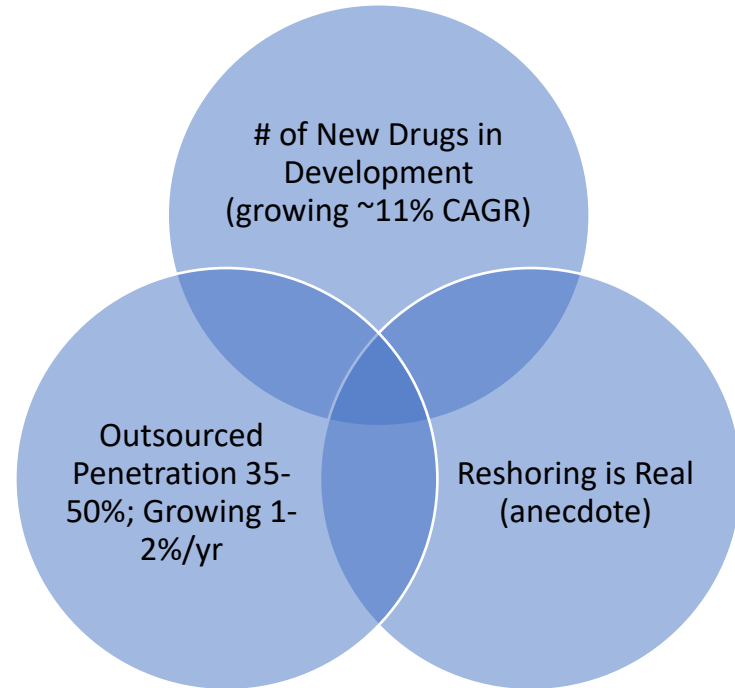
CRO Trends



A Perfect Storm of Demand Drivers Causing Discontinuity in US-based Supply of Services

Strong demand will continue to fuel pharma services growth although headwinds may be coming

“Perfect Storm” of Demand Drivers



Turbocharged demand drivers through 2021 fueled frothy Valuations and M&A activity in Pharma Services

Headwinds

- Venture capital funding – Levels into emerging pharma reverting to pre-pandemic levels (down ~60% YoY in Q1'22). However, still at historically high levels
- Supply chain concerns - Not showing signs of subsiding (COVID/Ukraine), which may slow down flow of new therapeutics
- Market volatility - According to Jefferies, 128 small and mid-cap public biotechs are now trading at a market cap smaller than the cash they have on hand. Interestingly, the top 15 drugmakers have enough cash to buy out the whole SMID biotech sector, or a whopping 644 companies.
- Inflation – prices and ripple effect



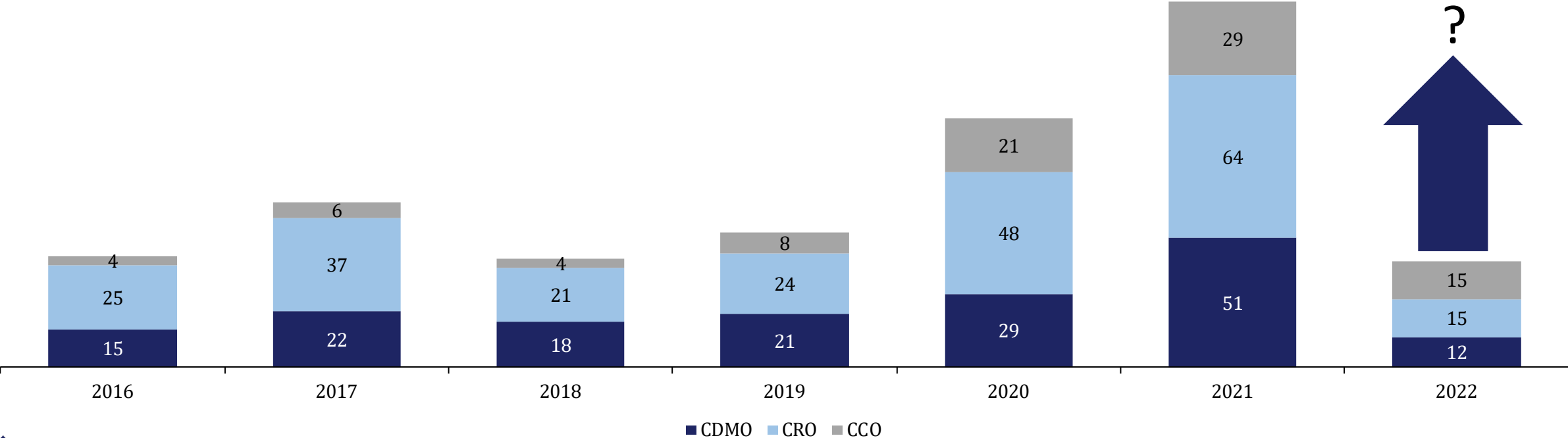
M&A CREATING A WIDER GAP BETWEEN GLOBAL GIANTS AND SMALL PLAYERS

M&A Activity by Pharma Service

Pharma service M&A remains strong, with CROs leading the way over the past 5 years

U.S. Pharma Services Deal Count by Service

- Deal volume remained solid through the first quarter of 2022 which will continue to drive consolidation in the pharma services industry
- Many of the mid-sized players have been merged into larger global entities
- Where will 2022 end up?



Source: William Blair Pharma Services Investment Banking proprietary M&A database. Note that this database may not be exhaustive



Consolidation has Increased the Gap between Large Industry Players and Small, Boutique Pharma Service Companies



*Creating a giant divide between the large and small pharma service players...
Relatively few mid-sized players remain*



Is There a Next Generation of Small Pharma Service Providers?

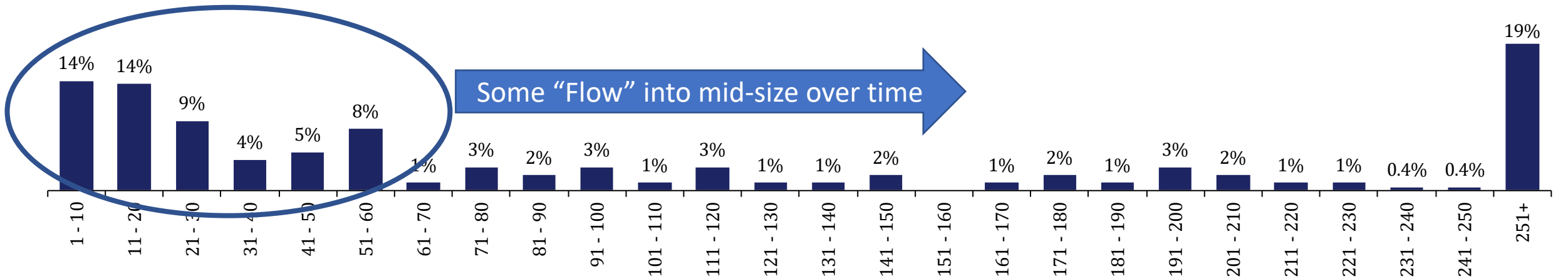
Many last-generation entrepreneurs who built mid-sized organizations have been merged into large global entities



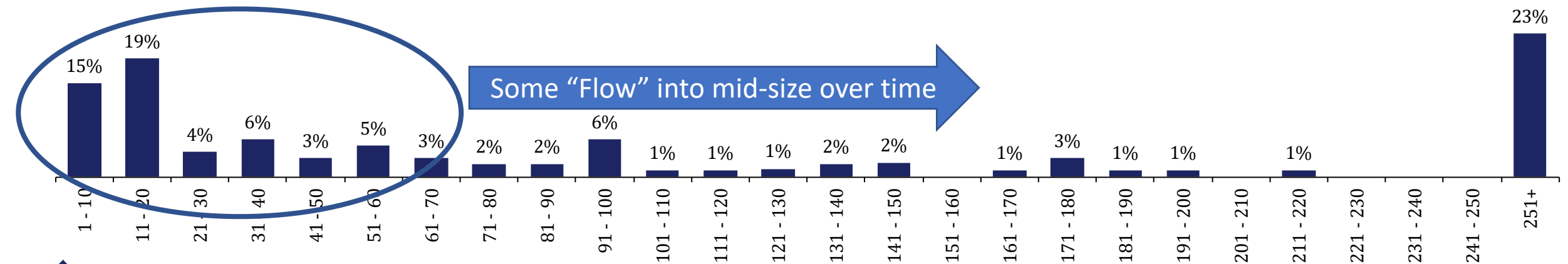
Large Presence from Pharma Services Companies Under 60 Employees

Piper Sandler, Proxy Data (n= ~500)

North American CDMO Distribution of Company Sizes by Employee Count (n=278⁽¹⁾)



North American CRO Distribution of Company Sizes by Employee Count (n=189⁽¹⁾)



Source: Piper Sandler
 (1): Only CDMOs/CROs with reported employee figures on PitchBook



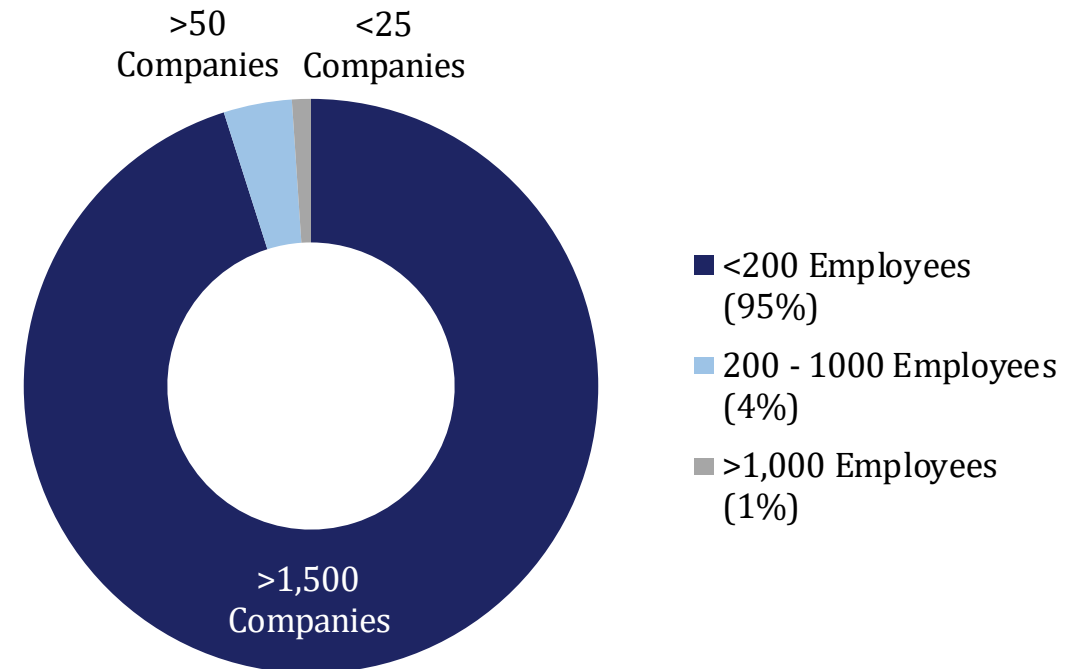
Evolving Ecosystem of Small Pharma Services Companies

Strong demand growth for pharma services has fueled an increasing number of small pharma services companies. Data includes all pharma services (CRO, CDMO, CMO, CCO, Consulting Services)

Edgewater Estimates 1500-2000 North American Pharma Services Companies

- 95% of the pharma services companies we found had <200 employees, and >80% of those currently have 50 employees or less
- Consolidation in the near-term is expected to continue to drive this trend throughout the industry
- There is a lack of medium-sized pharma services companies to fill the void
- Significant opportunity exists for smaller pharma services companies to fill this void through organic growth or consolidation

Pharma Services Companies by Headcount



Anatomy of a Pharma Service Company

Attribute	Small Organization	Large Organization
Size	< 50 employees	>1000 employees
Business Model	Narrowly focused capabilities	Broader, integrated model
Customer Demographic	Mostly small/emerging pharma	Tilted towards big-pharma / big-biotech
Value proposition	Speed, flexibility, high customer-touch, access to owner/CEO. Strong depth of expertise in narrow vertical	Integration of services drives efficiencies. Larger, strategic programs “under one roof”, well-capitalized, full mix of newest equipment
Challenge areas	Customer sees potential risk that “critical mass” has not been achieved. Is the company here in the long term? Financial stability?	Customers have noted challenges in customer service, prioritization of strategic clients over emerging pharma, and longer lead times in scheduling
Ownership	Owner/founder entrepreneur. Tend to be highly technical. Can be either growth-oriented, or enjoy a “lifestyle” business & culture	Large public or PE-backed organizations focused on growth. Strong business acumen and systems

Mid-sized players can possess some of the best attributes of both small and large organizations



SO, WHAT ARE THE ENTREPRENEURS SAYING
HERE IN THE US MARKET?

Key take-aways from >200 small business owners

“What are the Keys to Your Success?”

Key to Success	Description
High Service Levels – Client Touch	Deep client relations and continuity of personnel throughout the development program
Fast and Flexible Operations	No bureaucracy; readily adaptable to changing priorities
Strong Cultural Fit With Emerging Pharma	“We act like you.” A perfect extension of the entrepreneurial culture of the biotech company, which creates the perfect partner
Narrower Technical Focus = Stronger Depth of Expertise	Laser focus on the one or two niche areas they do best. Almost the opposite of the fully integrated CDMO model. Often these companies have strong connection/proximity to academic institutions.
Strong “Made in America” Mantra	Pride in U.S.-based location and serving the largest market. Pride that the U.S. is the hub of the world’s pharma/biotech innovation, which is supported by reshoring trends
Opportunities in Advanced Therapies Seeding a “New Kind of CRO”	In addition to traditional CRO’s, “Specialty or Boutique” CRO’s are emerging around AI-driven drug discovery, sustainable process chemistries, proteomics, decentralized trial management, nanotech, large molecule analytical, etc. The “new niches” are endless.

Covid was also cited as an indirect driver of near term growth for numerous small services players as they were recipients of R&D and Mfg for non-covid therapeutics as the larger CDMO’s dedicating more capacity for covid therapies. Will the small players retain this business going forward as covid subsides?

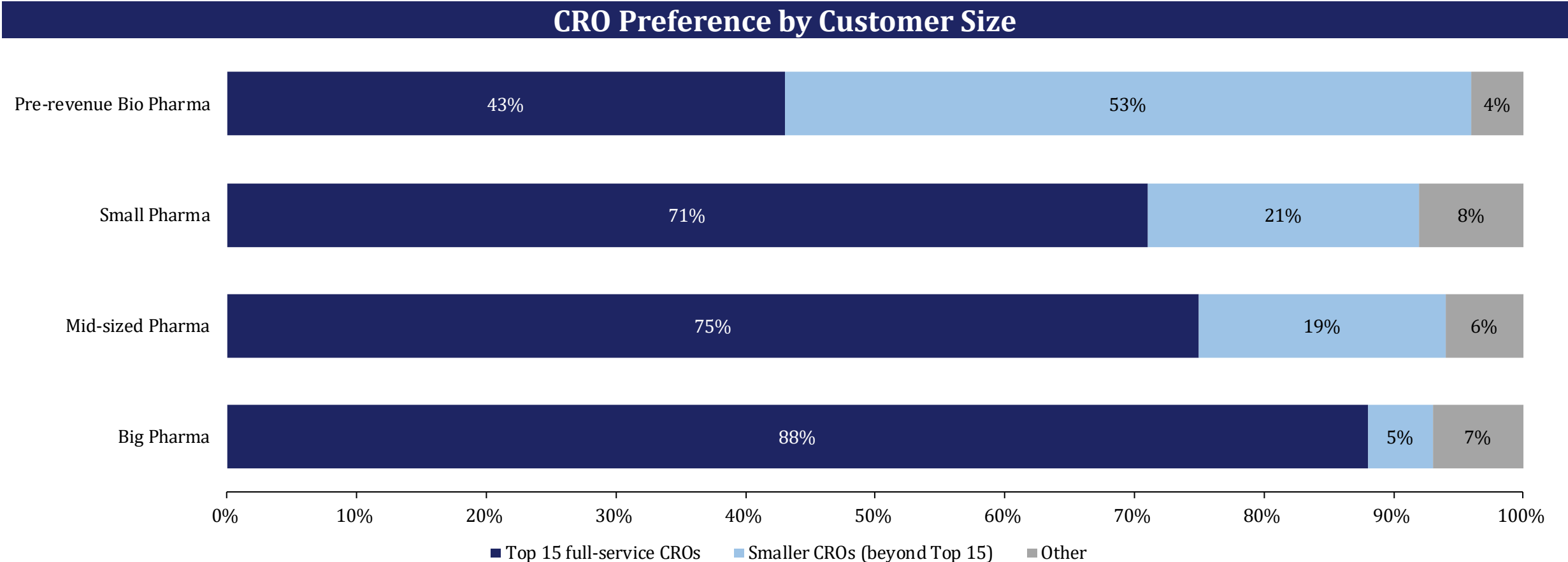


Nearly All Respondents Indicated That Emerging Pharma
Made up the Vast Majority of Their Customer Base



Emerging Pharma Generally Prefer Smaller CROs

While big pharma prefers large, full-service CROs, smaller pharma players prefer boutique CROs due to their niche expertise and high-touch approach to customer relationships



Source: Credit Suisse Research

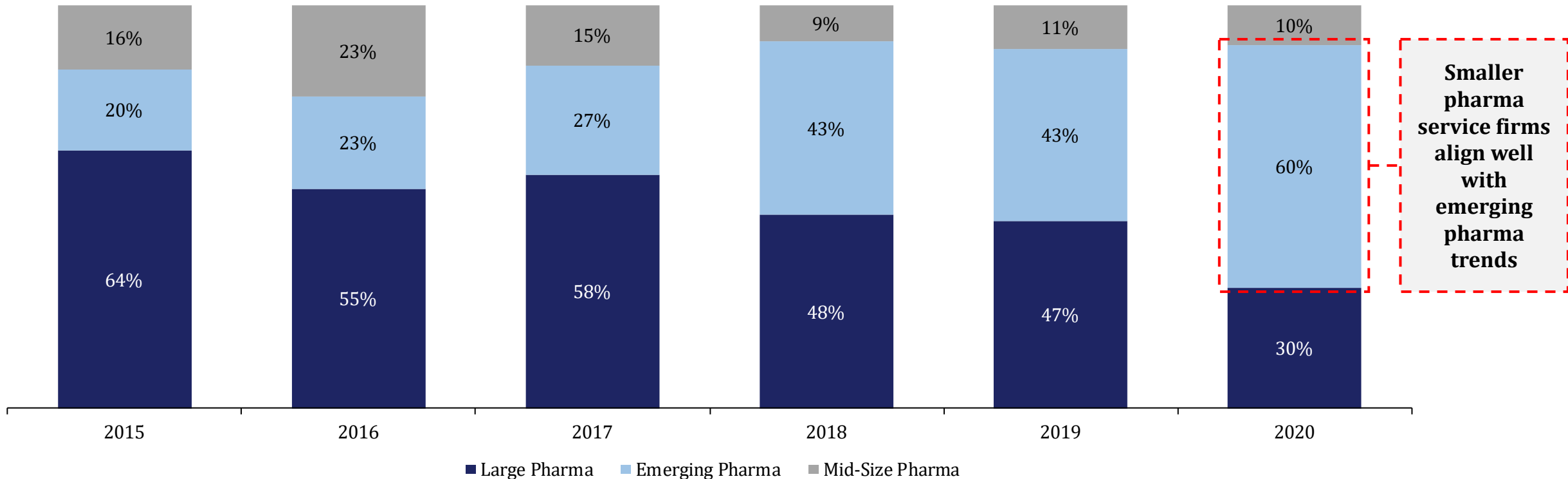


Who Will Win the Emerging Pharma Customers?

Approval data trends tilt heavily towards emerging pharma

- Smaller pharma service firms, particularly in early/mid development can have a real advantage. Later in development, more infrastructure may be required

Percentage of FDA Approvals by Innovator Size



WE ASKED THE ENTREPRENEURS
ABOUT THEIR BIGGEST CHALLENGES

Key take-aways from >200 small business owners

Key Challenges to Future Growth

Key Challenges – Barriers to Growth	Details
Access to Capital	<p><i>“How do I balance debt and/or equity investment/partner?”</i></p> <p><i>“Will I have to give up control in order to grow?”</i></p>
Recruiting	<p>“The great resignation” has led to turnover in the 20-35% range. Recruiting is one of the top reasons cited as a barrier to growth. Contributing factors: low name recognition, lack of HR systems, rare use of retained search firms, and heavy reliance on word of mouth.</p>
Supply Chain	<p>Historically tactical approach to sourcing/supply chain. Lack of, or non-existent, strategic sourcing function within the company. Strong concerns that the big CDMOs/CROs hold more clout with suppliers. Increased reliance on 3rd party sourcing help</p>
Sales/Commercial Horsepower	<p><i>“How do I best leverage sales talent?”</i></p> <p><i>“How do I better leverage marketing resources?”</i></p> <p><i>“Will adding a more formalized sales/marketing team break the bank?”</i></p>
Business Process Expertise	<p><i>“I’m always fighting fires and don’t have the time to set up scalable business processes.”</i></p> <p><i>“What best practices should we be adopting?”</i></p> <p><i>“Will I lose flexibility by bringing in more systems/structure?”</i></p>



So What's Next?

Where will these small players go from here?

From my discussions, the business owners fell into four camps:

1. *"The 30 Year Old Startup"*: Some smaller players like their smaller size and independence. Don't feel the need for more growth. Owners love the science and is more of a lifestyle business.
2. *Intend to Sell Quickly*: Technology or capability differentiated with intention to sell/exit quickly. Company fills specific gaps in pharma R&D and will sell in a larger, integrated player. Potential ongoing Royalties for technology companies.
3. *Grow on Our Own*: Some of these will find their way organically into the "mid-size" category on their own over the next 5-10 years while retaining control-ownership of their organizations. This growth will be facilitated though cash flow, growth equity, and debt.
4. *Grow Through Partnership*: Others will find PE partners to help facilitate growth both organically or through well-planned consolidation strategies to build solid mid-sized organizations more quickly. Will hit scale in 3-5 years.

As some of these companies grow and become mid-sized players, they will tend towards a more integrated model



Summary / Takeaways

- Demand for Pharma Services continues to be extremely strong driven by the perfect storm of: 1) Therapeutics in Development; 2) Increasing Outsourced Penetration; 3) Reshoring dynamics
- Given the flurry of M&A activities the past few years with mid-sized players, the divide is huge between small and large pharma service players
- At the same time, the growth of the industry has “seeded” an ecosystem of smaller, entrepreneurial pharma service players. More “Specialty/ Boutique” services companies are emerging. This segment of the industry is quite vibrant
- The smaller players are most concerned about: 1) Access to Capital; 2) Recruiting; 3) Supply Chain; 4) Sales Engine; 5) Business process expertise
- Some of these smaller players will soon grow to fill the gap between small and large. These will share key attributes of both the small and large organizations, and will have an added level of integration vs the smaller players.
- Headwinds beginning to mount from: VC funding, supply chain, public markets, and inflationary pressures.



Acknowledgments

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THANK YOU!



The investment is just the starting point.