FINANCIAL OPPORTUNITIES FORUM

Today's topic:

Deep Dive into US Life-Science Tools and Diagnostics - The infrastructure behind Drug Discovery

Upcoming FOFs:

Thursday, December 11, 2025

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Lifescience Tools & Diagnostics

About Lifescience Tools & Diagnostic Industry

The industry provides three main types of offerings..

Major instruments
(e.g., LC-MS, electron microscopes)

Consumables
(e.g., pipettes, reagents, columns)

Services
(e.g., software, lab management)

...to four major end markets

- Materials for therapeutic research, manufacturing, and quality assurance
- Support in executing clinical trials

- Food / water / environment quality testing
- Inputs to energy, chemicals, and automotive industries

- Materials for basic (bench) research
- Support in managing labs (e.g., service, inventory)

- Tests to diagnose disease (e.g., PCR and antigen COVID tests)
- Tests to diagnose treatment effectiveness (e.g., companion diagnostics)

Automated Pipetting System

Mass Spectrometer

HPLC System

Consumables

Compound Microscope

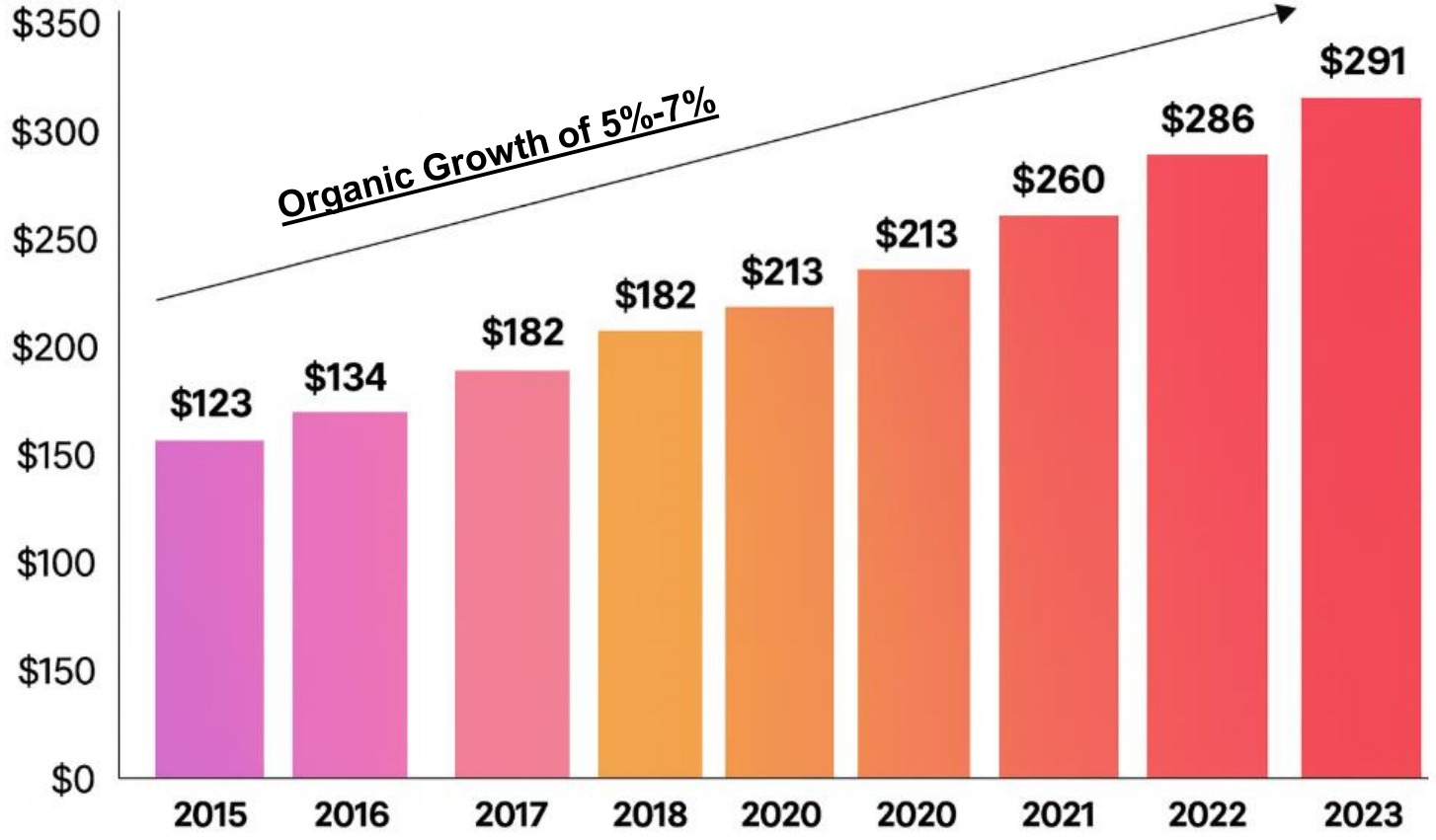
Gas Chromatograph

Medical Laboratory

Diagnostic Analyzer

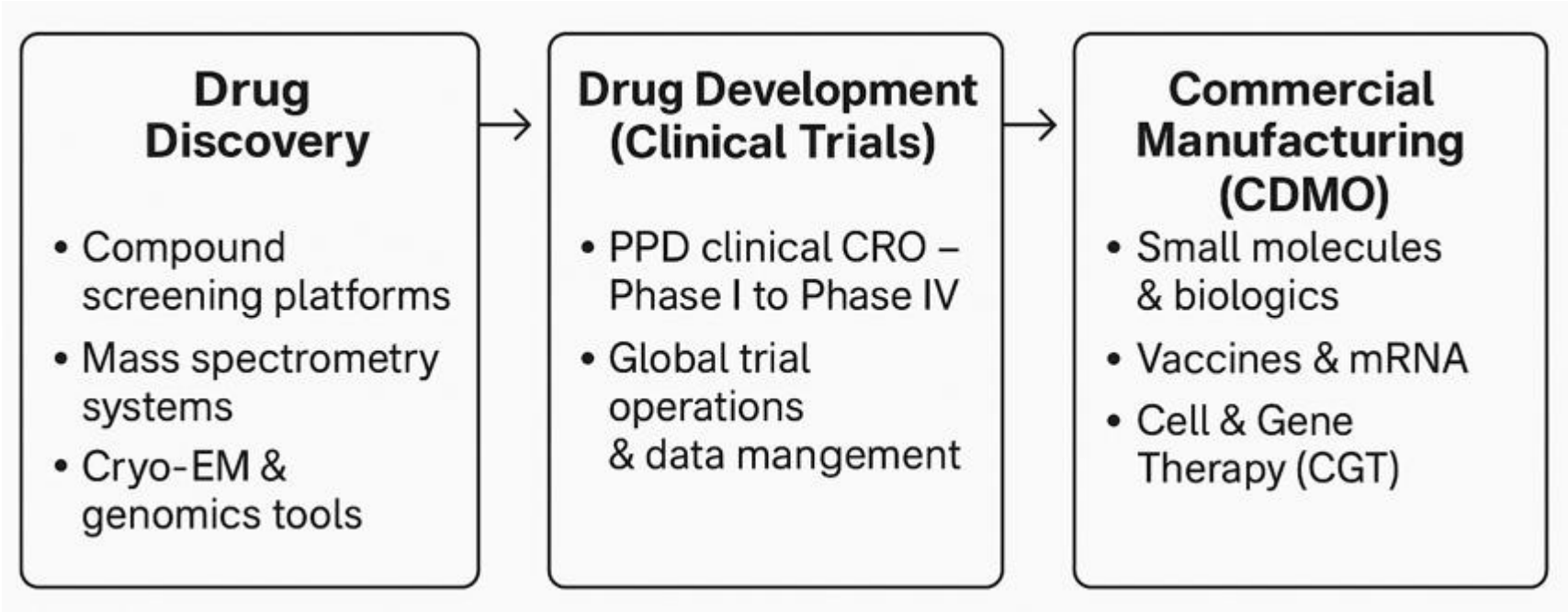
ICP-MS

Life Sciences Tools & Diagnostics Sector Annual Revenue ($ Bn)



Source : Industry Reports

Value Chain Overview



Lifescience Tools & Diagnostics Vs MedTech Device

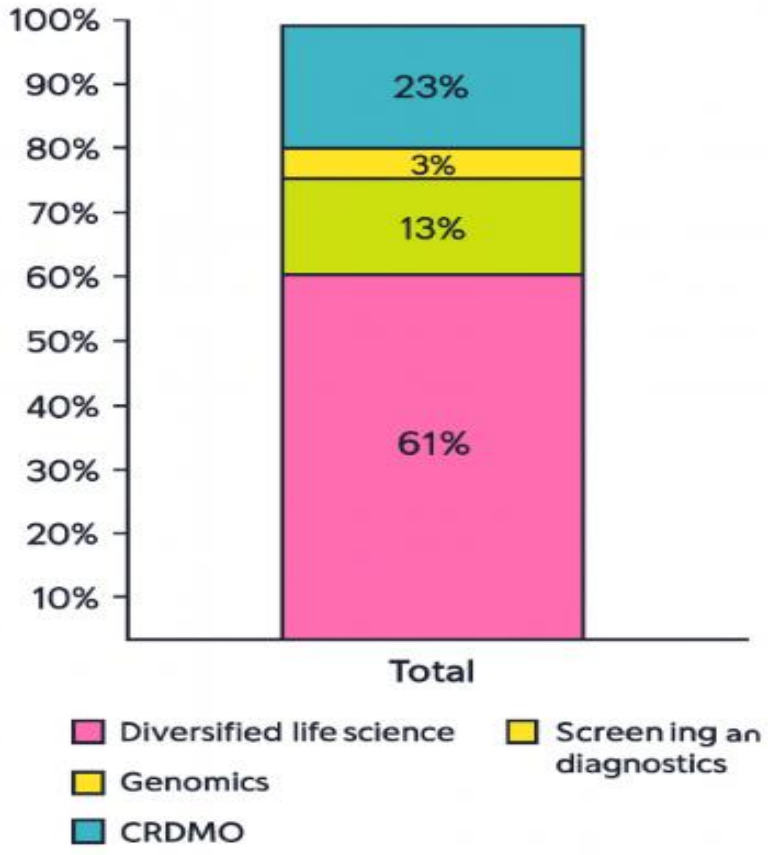
Aspect	Life Science Tools & Diagnostics	MedTech Device
Core Offering	Instruments, reagents, consumables, and services used in scientific research, diagnostics, and laboratory workflows	Finished medical devices and implants used directly in patient treatment or surgery
Product Examples	PCR machines, spectrometers, electron microscopes, laboratory consumables, diagnostic test kits	Cardiac Stents, orthopedic implants like Hip & Knee replacement, surgical robots, ventilators, endoscopes
Applications	Drug discovery, basic research, clinical diagnostics, industrial quality control, forensics, environmental testing	Direct patient care (treatment, monitoring, surgery), hospital and surgical center operations
Regulatory Path	Research-use products: no patient-use approval needed	Device-specific approvals before patient use
Companies	Thermo Fisher, Danaher, Agilent, Waters Corp	Medtronics, Abbott, J&J, Philips
End Customers	Pharmaceutical Companies, CROs, Research institutions, public health labs	Hospitals, surgeons, interventional specialists, clinics

Leading Listed Companies

S.No	Company Name	Country	Mkt Cap ($Bn)	Revenue ($Bn)	Margin (%)
1	Thermo Fisher Scientific	United States	210	42	22%
2	Danaher	United States	155	24	21%
3	Agilent Technologies	United States	41	7	22%
4	Waters Corp	United States	23	3	27%
5	Sartorius	Germany	16	3	16%
6	BioMérieux	France	15	4	17%
7	Revvity	United States	11	3	15%
8	Avantor	United States	8	6.5	11%

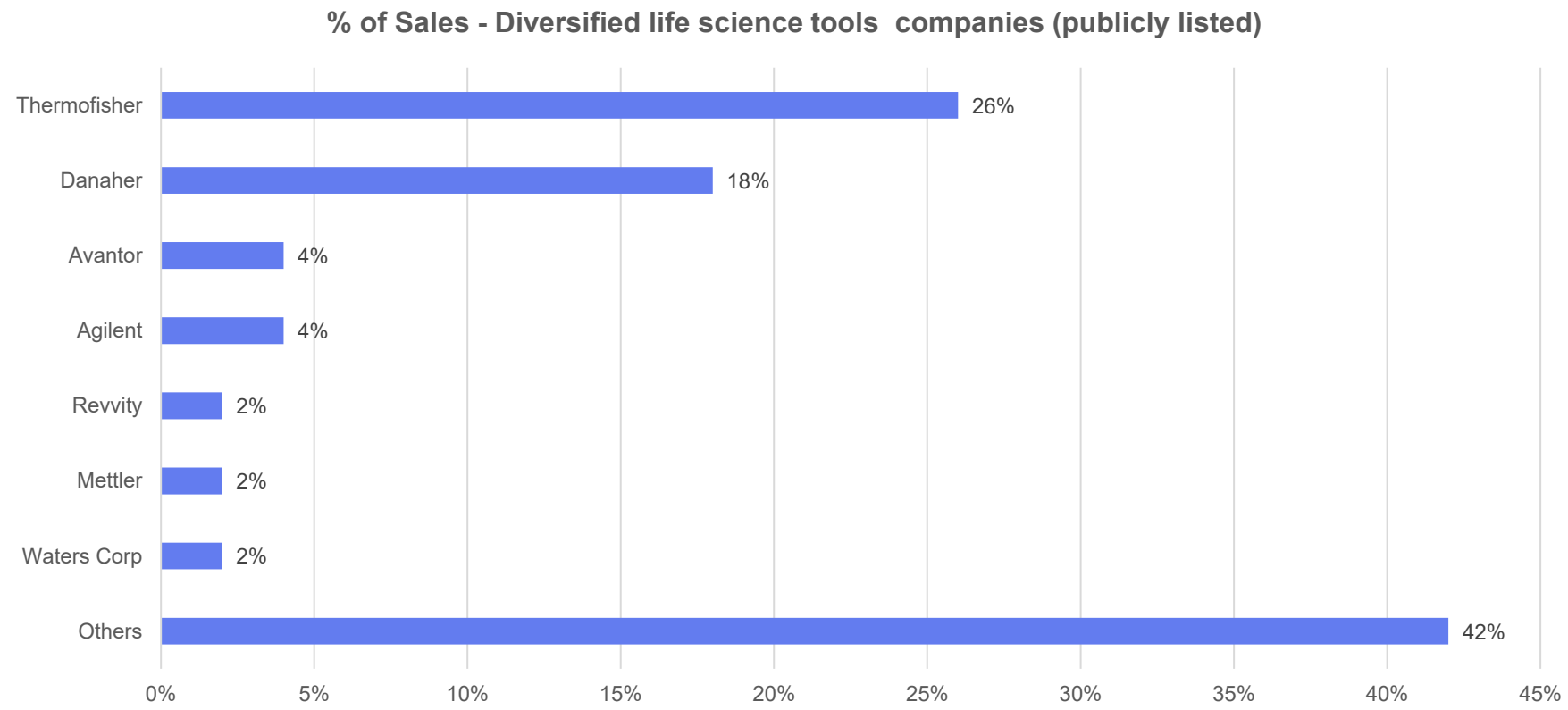
Source : Company Data, TIKR

Diversified life science companies accounted for ~60% of industry sales



Source : Industry Reports

Thermo & Danaher make up >40% of Diversified tools company sales



Source : Industry Reports

Segment Overview

Some Key Aspects

Aspect	Description
Purpose	Enables scientific research, drug discovery, bioprocessing, and clinical testing.
Core Offerings	Lab equipment, analytical instruments, reagents, kits, assays, consumables, diagnostic platforms, software.
Key End-Markets	Biopharma companies, CROs/CMOs, academic research labs, government agencies, hospital labs, reference labs.
Major Applications	Genomics, proteomics, cell biology, biologics development, manufacturing QC, disease diagnosis and monitoring.
Industry Importance	Acts as the critical enabler of innovation pipelines (R&D → manufacturing) and clinical

Purpose of Life Science Tools & Diagnostic Devices

- Foundation for Scientific Discovery
- Enabling Drug Discovery and Development
- Supporting Scalable Biomanufacturing
- Critical Role in Clinical Diagnostics and Healthcare Delivery

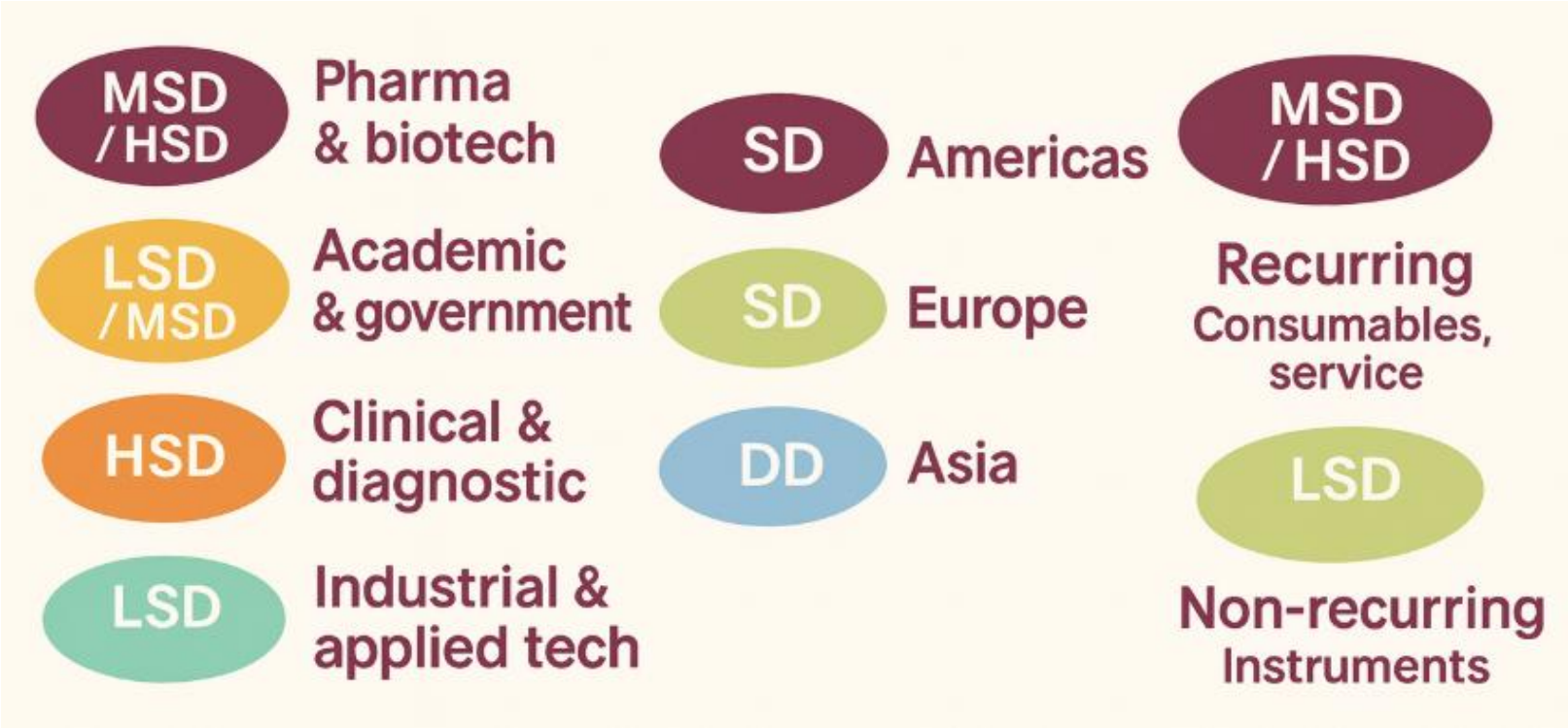
Product Portfolio

Instruments

Consumables

Diagnostics & Services

Key End Markets



Industry Importance

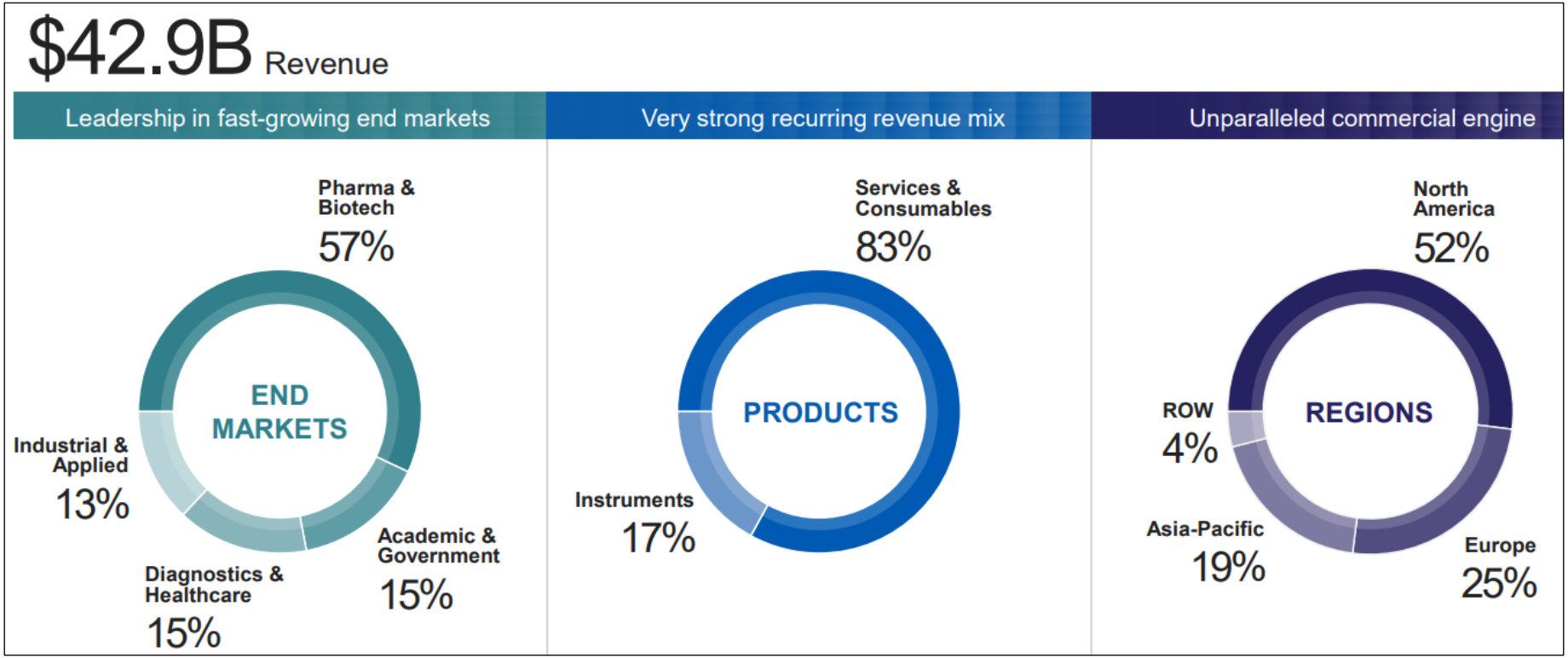
- Underpins the Entire Drug Innovation Pipeline
- Enables the Shift from Chemical Drugs to Biologics & Advanced Therapies
- Allows Healthcare Systems to Diagnose and Monitor Disease
- Creates Structural Recurrence, Stickiness & Growth


ThermoFisher
SCIENTIFIC

Thermofisher

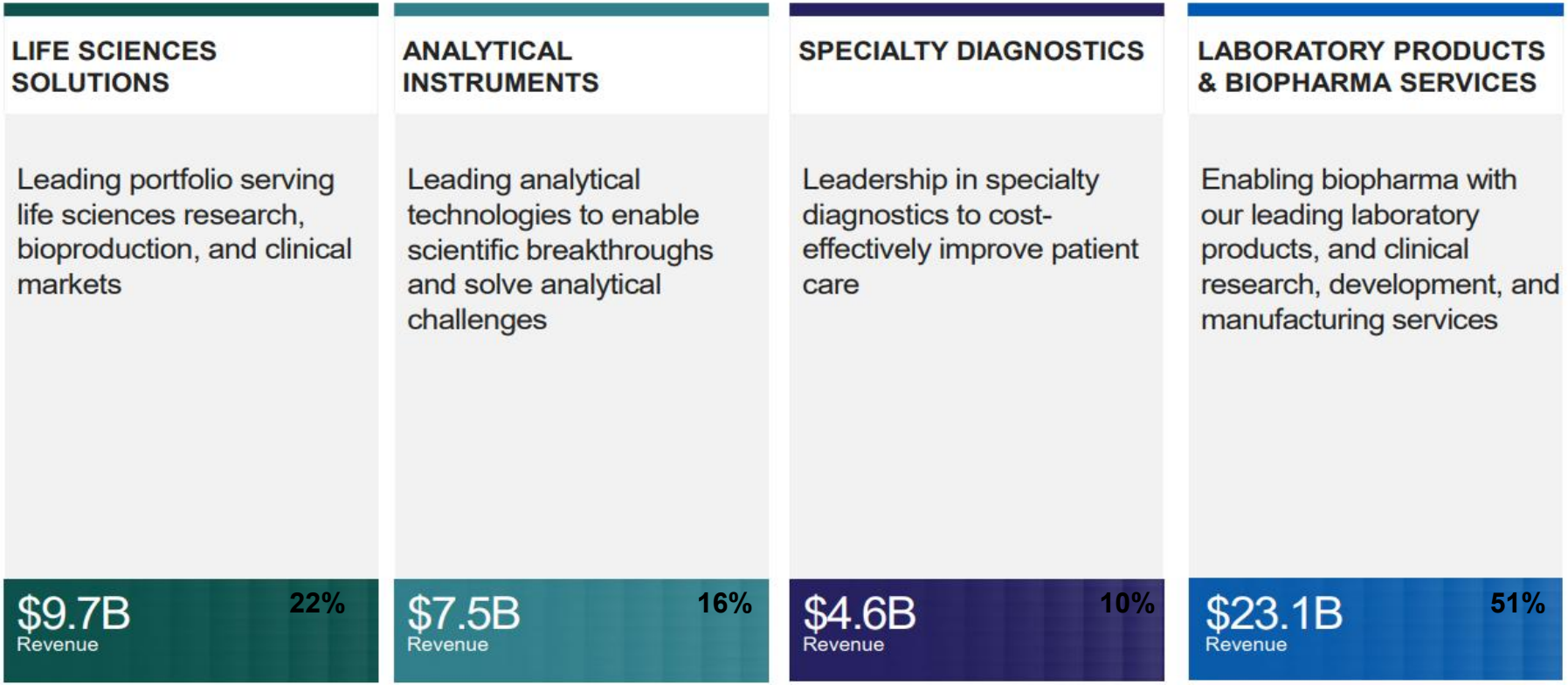
- Distinguished by its extensive portfolio of products and services
- One-stop platform for the industry
- Thermo covers all stages of drug development
- Enables cross selling to achieve inter-segment synergy
- Company has made M&A a core strategy
- Despite its ambitious M&A executions - managed to deliver consistent free cash flow

Diversified Revenue Profile



(Source: Thermo Fisher Scientific)

Portfolio Focus



(Source: Thermo Fisher Scientific)

TTM : As on Mar'25 (Q1 FY25)

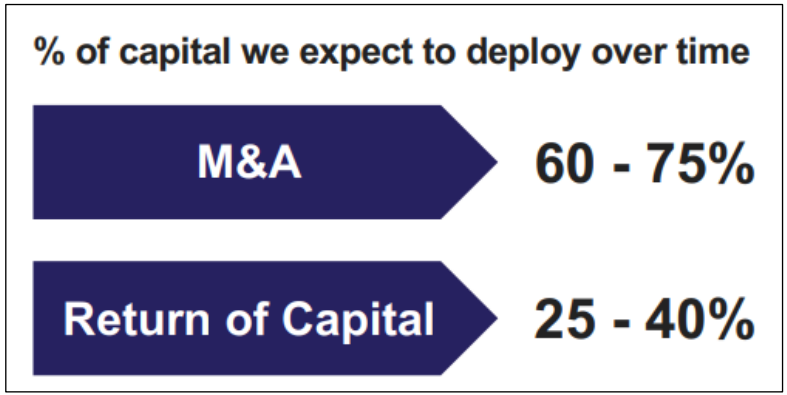
Thermo Fisher: A High-Margin Razor-and-Blades Business Model

Sell the 'razor' **(an instrument)** once. Sell the proprietary 'blades' **(consumables & services)** for years

83%

Capital deployment strategy

- M&A is the primary focus of our capital deployment strategy
- Fragmented industry and proven M&A playbook create ample opportunities
- Expect share buybacks to remain the primary means of returning capital
- Expect dividend to consistently increase over time
- Fully fund high-ROI organic opex and capex opportunities



Key large acquisitions

	Transaction value ($M)	Strategic rationale	Results
life technologies (2014)	13,600	Established a leadership position in life science research offerings	• Business is ~2.6x larger today (~$10B)
FEI (2016)	4,080	Added electron microscopy	• Business is ~2.3x larger today (~$2.1B)
patheon (2017)	7,360	Established CDMO position	• Business is ~2.3x larger today (~$4.3B)

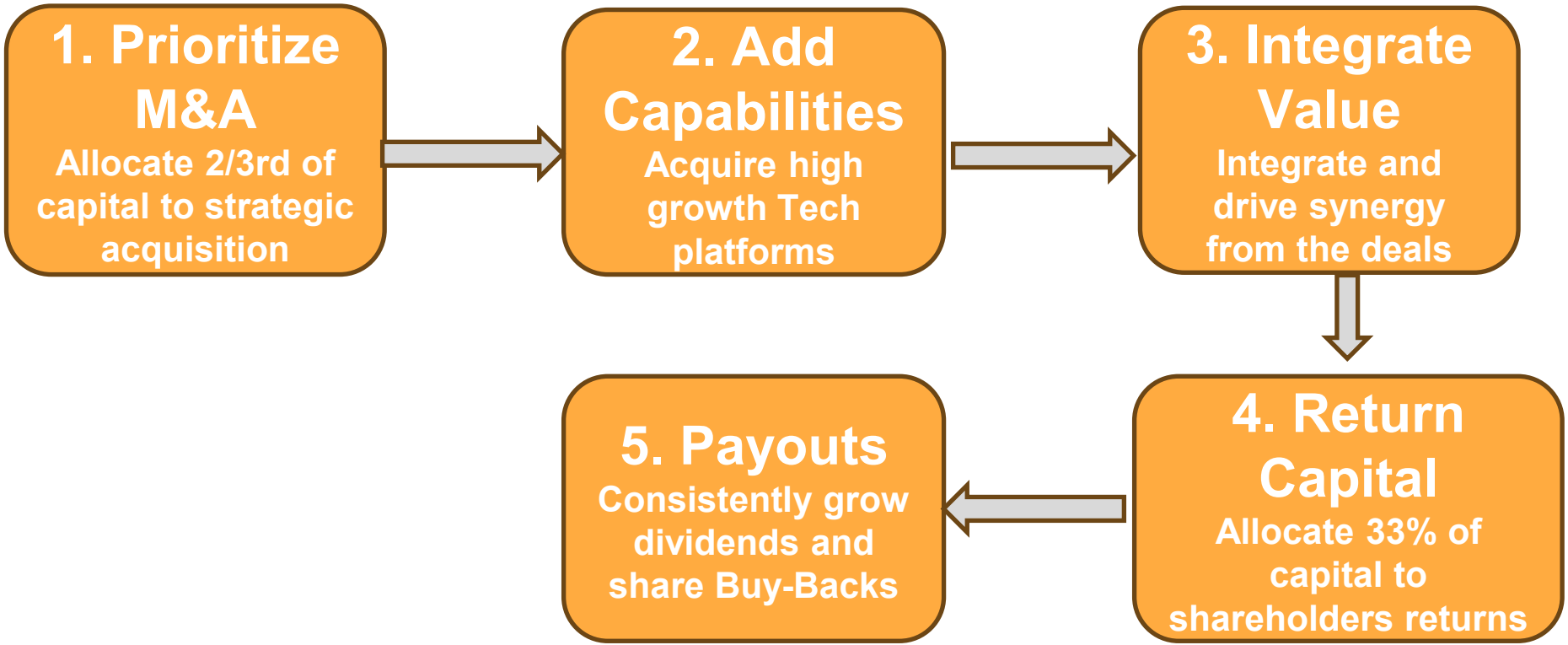
PPD (2021)	17,400	Added CRO capabilities	• Increased 2024 synergy targets multiple times and are now expecting:
			  • $250M revenue synergy
			  • $200M adj. operating income synergy (up from $125M initially)

We are a fast growing teenager – CEO Marc Casper

"The company may be more than 60 years old. But it acts more like a fast-growing teenager. We're large, but we're also nimble. Move fast, Even if you are big"

---- Thermofisher CEO

Capital Allocation

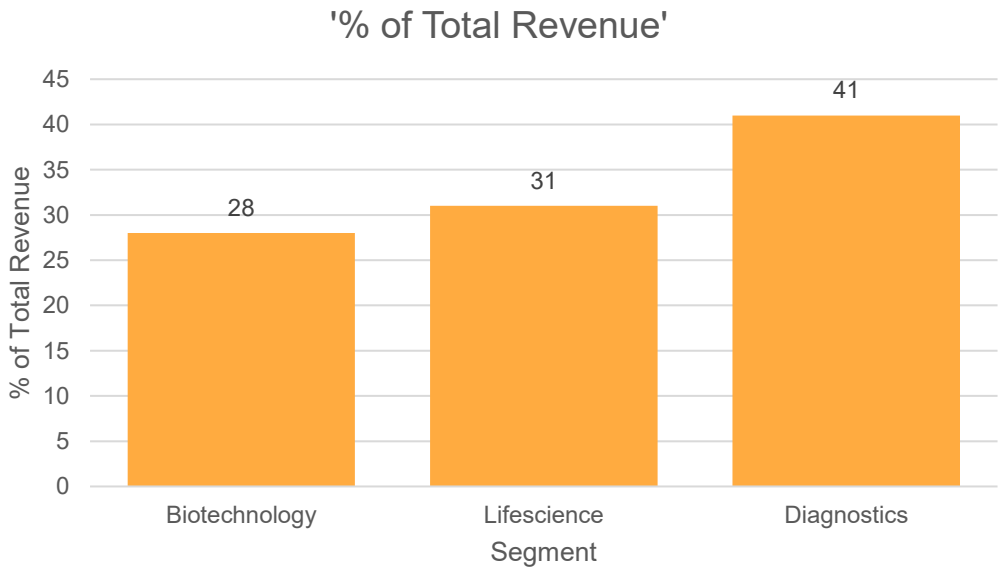


Thermofisher Strength lies in :

- **Unmatched scale –** Superior purchasing and distribution power
- **High swtiching costs** – Deeply integrated into customer workflows
- **Vast installed Base** – Creates annuity like recurring revenue
- **M&A Engine** – A core competency in acquiring and integrating

Danaher Corp

- Global life-sciences and diagnostics powerhouse
- Structured around three high-growth, high-recurring-revenue segments
- Danaher's **internal operating playbook =** Danaher Business System



Danaher Corp

S.N	Segment	Core Activity	Who buys it	Why it's important	Growth Drivers
1	**Biotechnology**	Sells materials, tools & equipment to make modern medicines	Biopharma, CDMOs, Vaccine manufacturers	Enables drug & vaccine manufacturing, gene therapies, anti-body drugs	- Shift from chemical drugs to biologic drugs - Rising demand for cell and gene therapies - More capacity build-outs in US, EU, China, India
	(FY24 revenue: $7 bn | High recurring revenue | "factory supply shop" for manufacturer of sophisticated biological drugs.				
2	**Life Sciences**	Tools for scientific R&D	R&D labs, Universities & research institutions	Discover new drugs, Cancer research, Running high-end experiments in labs	- Rising pharma R&D budgets - Higher automation in labs - Growing use of advanced imaging technologies
	(FY24 revenue: $7 bn | Balanced between instruments & consumables | "R&D toolkit" for the global scientific community.				
3	**Diagnostics**	Tools for patient testing	Hospitals, labs, private clinic	Backbone of medical testing	- Ageing population → more tests' - Higher prevalence of chronic diseases - Rising healthcare penetration in emerging markets
	(FY24 revenue: $10 bn | Largest and most stable segment | "medical testing backbone" for healthcare systems.				

Dimension	ThermoFisher	Danaher
Corporate Strategy	Broadest one-stop platform across research → clinical → commercial manufacturing; diversified revenue engines	Focused, high-recurrence life sciences & diagnostics specialist
Growth Engine	Mid-single-digit organic growth, driven by scale & services diversification	High-single-digit organic growth driven by consumables, diagnostics, and bioprocessing
R&D Intensity	~4% of revenue; incremental innovation	~7%+ of revenue; heavier focus on breakthrough biology
M&A Strategy	Large platform acquisitions (Life Tech, PPD); scale-led integration	Bolt-on + platform M&A (Cytiva); portfolio rotation via DBS
Geographic Mix	US-centric (~55%); diversified across EU & China	More exposed to China bioprocessing cycles; global diagnostics reach
Margin Profile	EBITDA ~25–28%; CRO/CDMO lower blend	EBITDA ~32–35%
Investment character	Global diversified life-science infrastructure + services play	High-recurrence, high-margin, innovation-driven biology platform
Summary	Breadth + Scale + End-to-End Services	Depth + Recurrence + Innovation Discipline

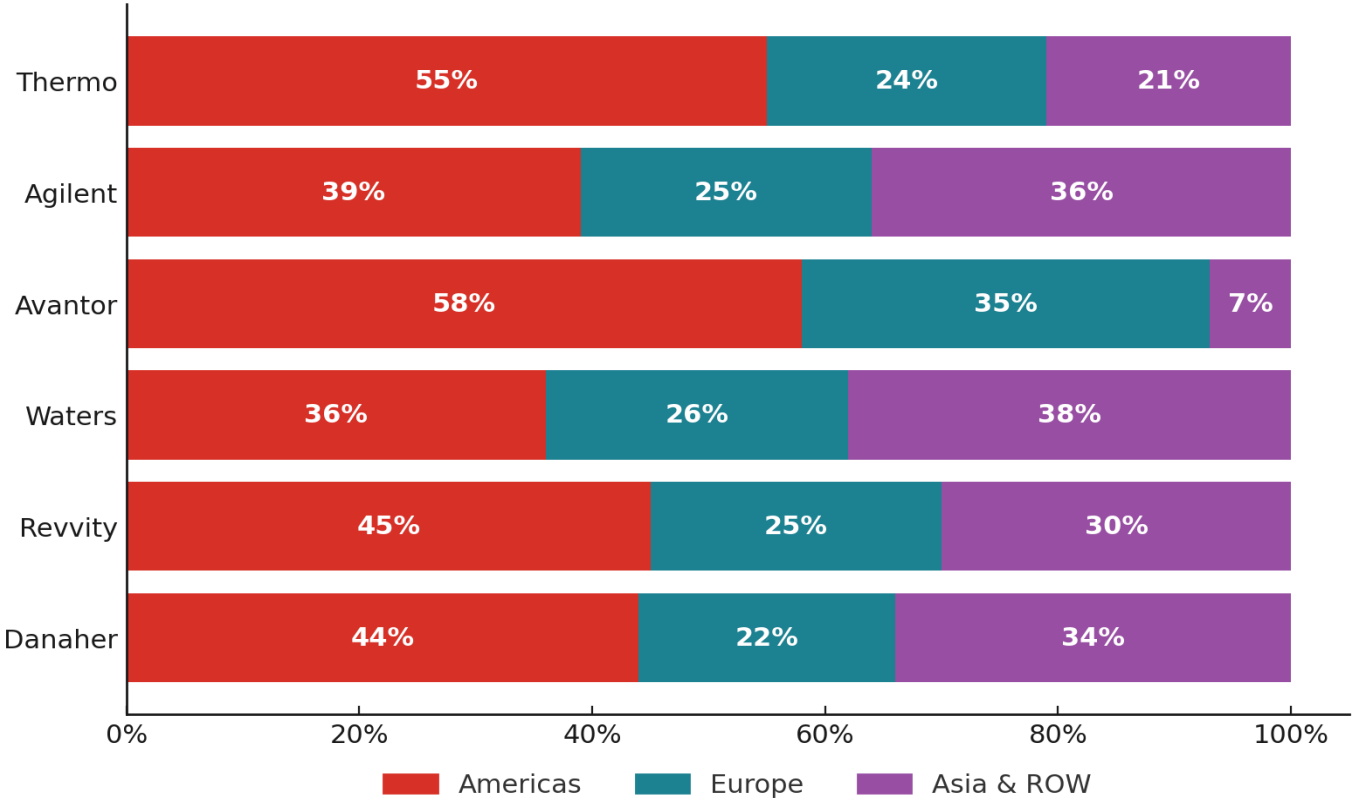
Agilent Technologies

- Leading analytical measurement company
- Market leader in an oligopolistic industry with multiple barriers to entry
- Recurring Revenue Model (58%)
- Diagnostics growth engine
- Geographically diversified (38% America, 25% EMEA, 36% APAC)
- Disciplined Capital Allocation

Waters Corp

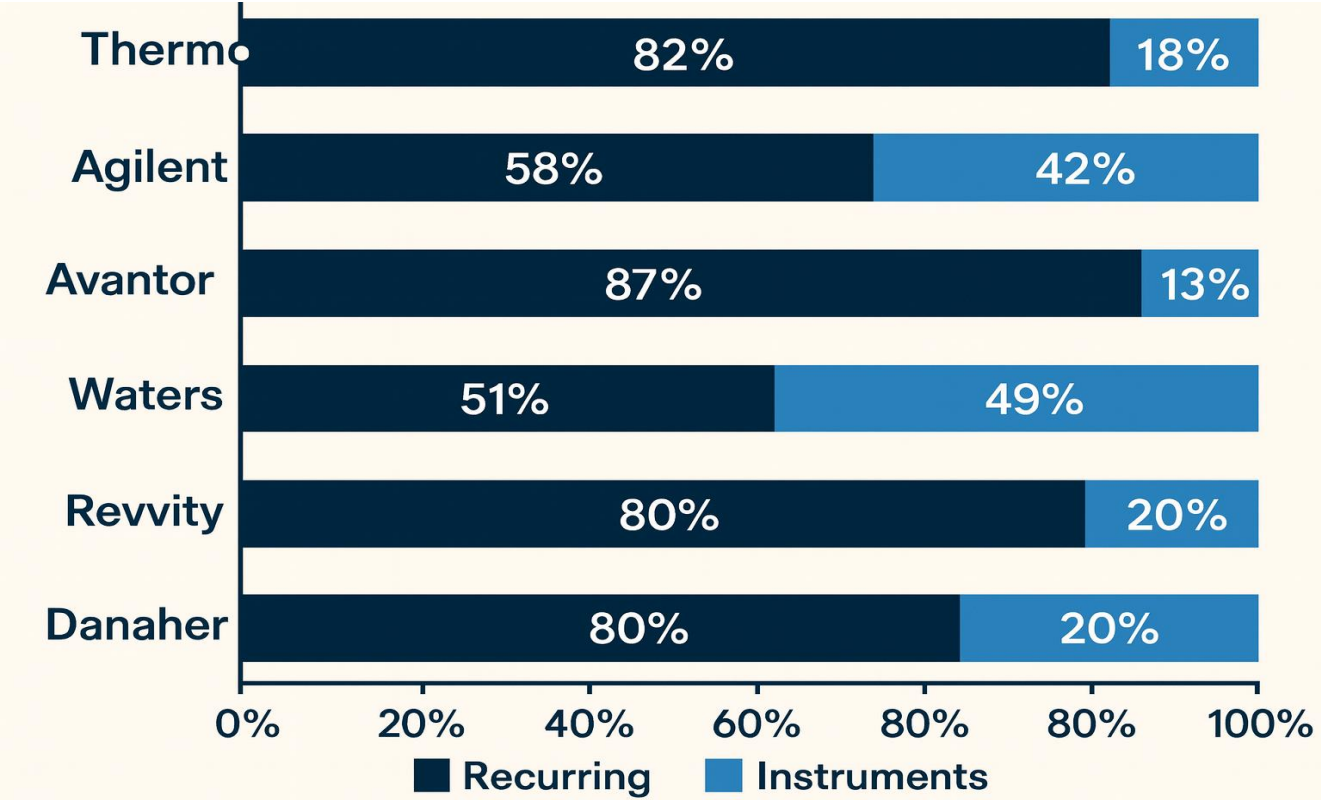
- Laser-focused on analytical instruments
- Very limited diagnostics/genomics exposure
- More pharma-QC dependent; Agilent more multi-market.
- Lower recurring revenue
- M&A - Historically conservative; prefers selective, strategic additions
- Over-indexed to APAC pharma (China/India), making it more sensitive to China cycles.

Portfolio breakdown by geography



(Source: Industry Reports)

Portfolio breakdown by product type



(Source: Industry Reports)

Capital Allocation Scorecard

Company	Capital Allocation Pattern	M&A Style	Buybacks/Dividend	FCF Deployment Bias
Thermo Fisher	Balanced reinvestment + acquisitions	Strategic tuck-ins, adj. to platform breadth	Modest buybacks; dividend stable	Reinvestment into workflow adjacencies
Danaher Corp	Operating efficiency + platform M&A	Programmatic acquisitions with integration discipline	Selective buybacks; low dividend	Continuous reinvestment guided by OpCo model
Agilent Tech	Organic reinvestment + margin stability	Smaller targeted technology adds	Consistent buybacks; small dividend	Focus on installed base utilization expansion
Waters Corp	Organic + product refresh cycles	Minimal M&A activity	Occasional buybacks; limited dividend	Cash retention for device platform updates

Scope of US FDA regulation

- Regulates all healthcare devices – from simple items to complex technology

- **Life science tools:**

  (a) The FDA regulates **medical devices intended for diagnosis, treatment, or clinical use**

  (b) Tools intended solely for **Research Use Only (RUO)** are outside FDA regulations

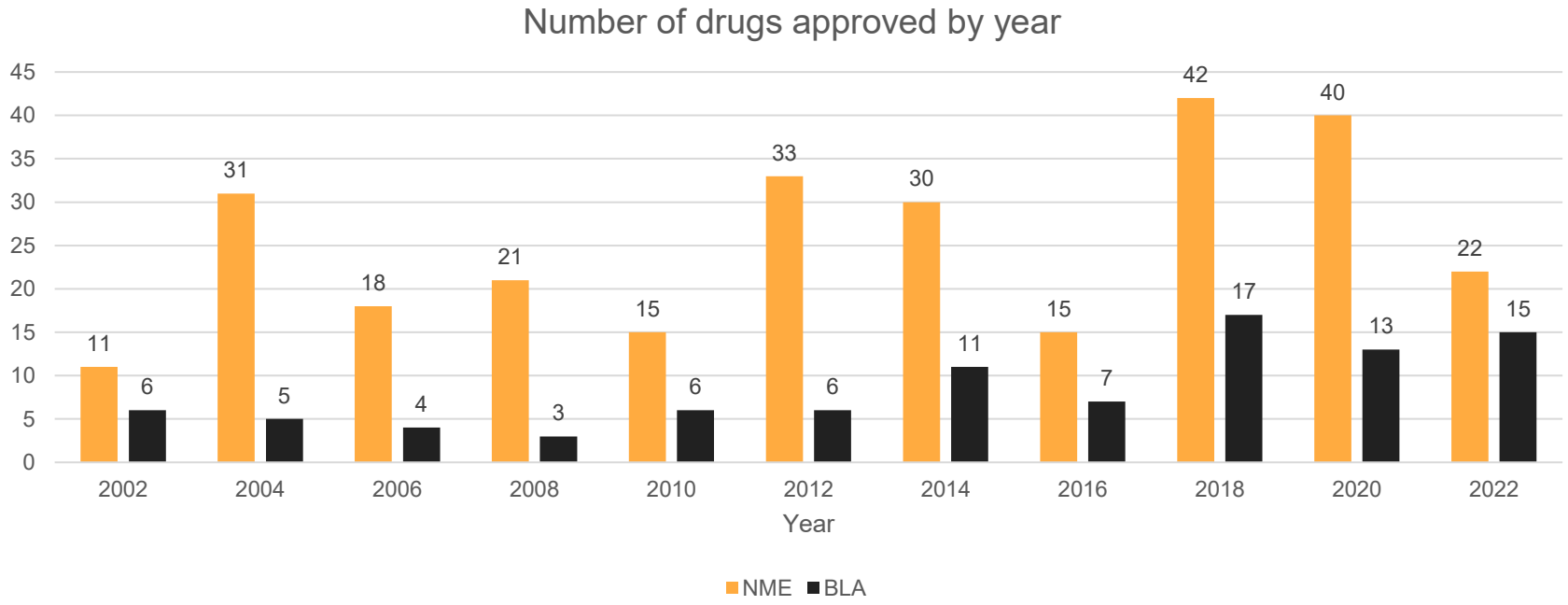
  (c) Examples - Lab instruments, Research reagents, enzymes, antibodies, consumables (tips, tubes, plates)

- **Diagnostic Devices:**

FDA classifies devices into three risk-based categories

- **Class I (Low Risk):** Exempt category
- **Class II (Moderate Risk):** Require Premarket Notification (510k)
- **Class III (High Risk):** Devices like pacemakers / glucose meters, require rigorous review

Number of FDA-approved therapeutics has been increasing (1st time launches)



NME *– New Molecular Entity*
BLA *– Biologics License Application*

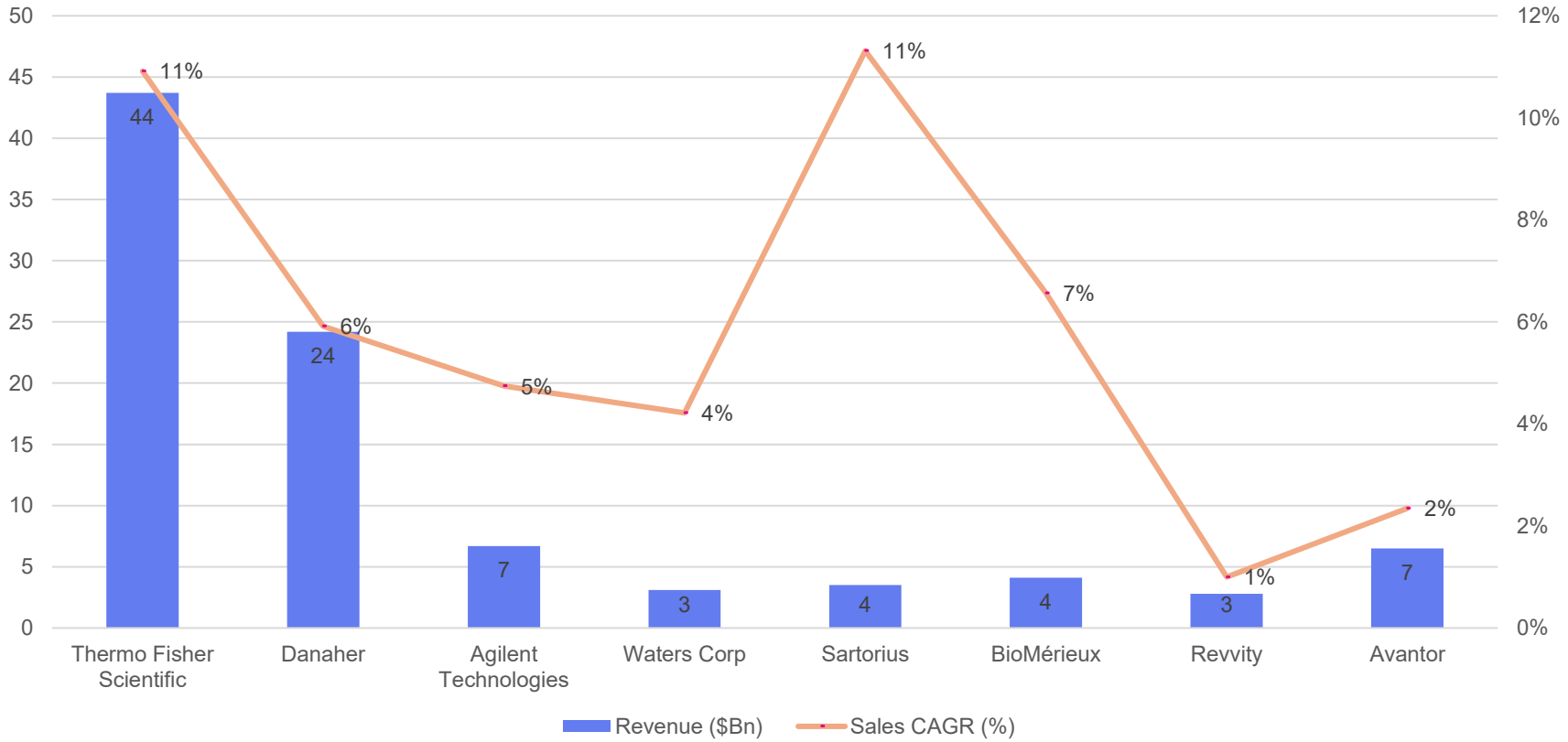
(Source: Industry Reports)

Peer Group – R&D Spend

Company	2024 R&D Exp	2024 Revenue	R&D (% of Sales)	Observations
Thermo Fisher	$1.4 billion	$42 billion	3 %	As a % of revenue it is lower than peers. It relies heavily on acquisitions to access new technologies, internal R&D intensity is moderate.
Danaher Corp.	$1.6 billion	$24 billion	6.6 %	Invests more aggressively in R&D. The higher R&D intensity reflects a strategy of continuous innovation alongside selective acquisitions.
Revvity	$195 million	$2.7 billion	7 %	R&D intensity is similar to Danaher's. It has focused on organic product launches.
Agilent Technologies	$475 million	$7 billion	7.4 %	Agilent's R&D spend is consistently ~7 % of sales. Mgmt emphasises that product innovation & software development drive organic growth.
Waters Corp.	$180 million	$3 billion	6.2 %	Waters prioritises R&D. Company spent ~6 % of revenue on R&D in 2024, similar to long-term levels.

Source : Company Data, TIKR

Major life science companies - Revenue & Revenue Growth



Revenue – FY24, Sales CAGR- Last 5 Yrs

Financials Comparison – Peer Group

Company	Revenue ($ Bn)	Recurring Rev (%)	EBITDA Margin	ROE (Last 5 Yrs)	P/E (x)	FCF %
Thermo Fisher	42	83	22%	17%	~31	4.1
Danaher	24	78	21%	10%	~45	3.8
Agilent	7	58	22%	21%	~33	3.2
Waters	3	51	27%	32%	~34	3.8

Source : Company Data

Valuation & Comparison – Peer Group

Company	MCap ($ Bn)	Trailing P/E (x)	Median P/E (x)	EBITDA Margin	ROE (Last 5 Yrs)	D/E
Thermo Fisher	210	~31	32	22%	17%	0.6x
Danaher Corp	155	~45	38	21%	10%	0.3x
Agilent	41	~33	36	22%	21%	0.6x
Waters	23	~34	30	27%	32%	0.9x

Source : Company Data

Peer Summary

Thermo Fisher

Breadth enables capture of complex modality workflows

Danaher Corp

Disciplined, innovator driven that builds category- life-science & diagnostics

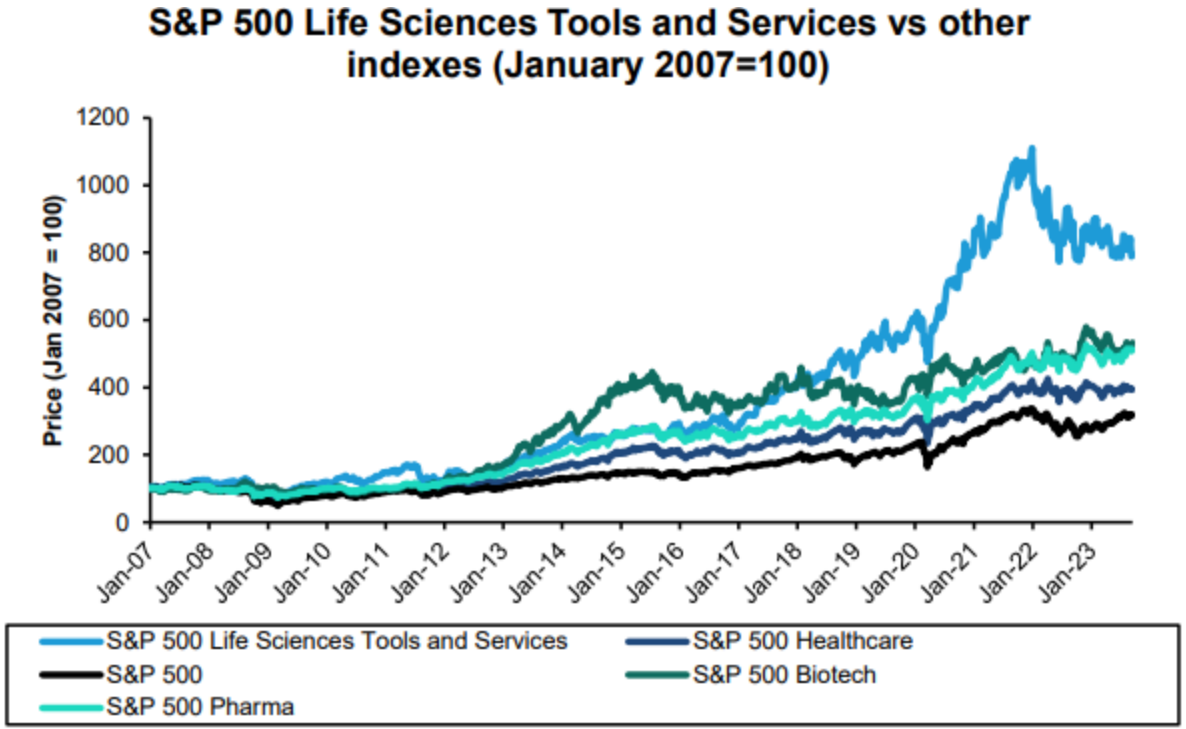
Agilent Tech

Leader in Analytical instruments (20%) & disciplined capital allocator

Waters Corp

Pure-play specialist with unmatched leadership in LC-MS for high-accuracy testing

Life science tools & services index outperformed Healthcare index



(Source : Bernstein)

Consistent outperformance vs Broader healthcare sector

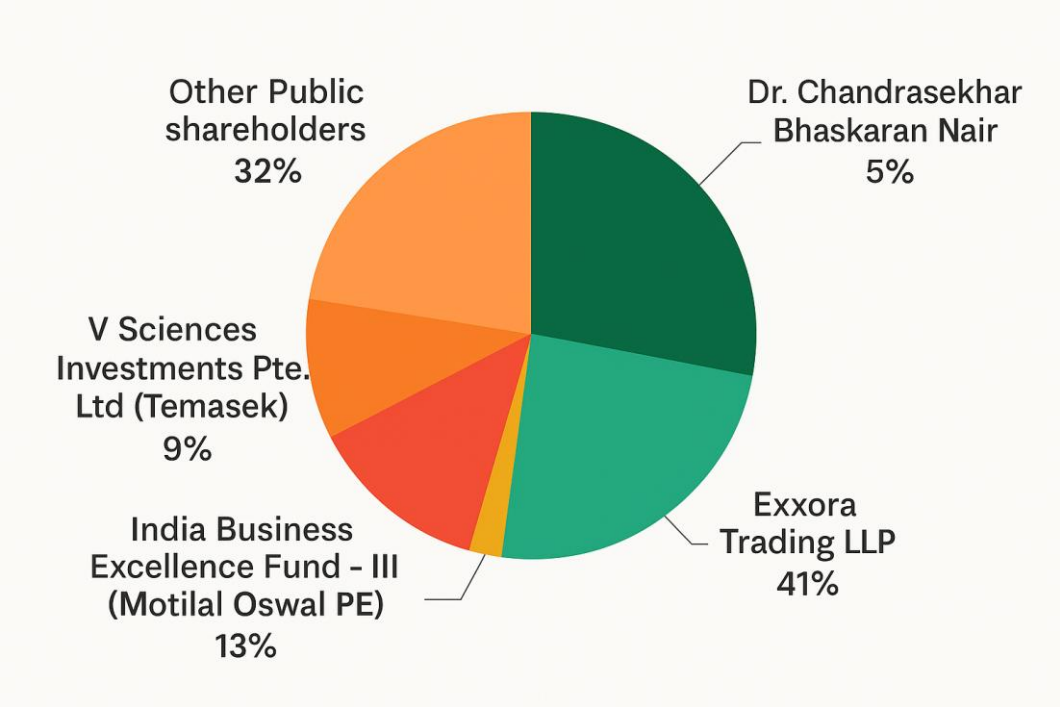
- Enduring, secular drivers of growth – NDA & Funding
- Customers with locked-in processes
- Increasingly higher-margin, higher-recurring revenue product lines
- Positive price – Willingess to pay for latest innovation

Indian Players

Molbio Diagnostics

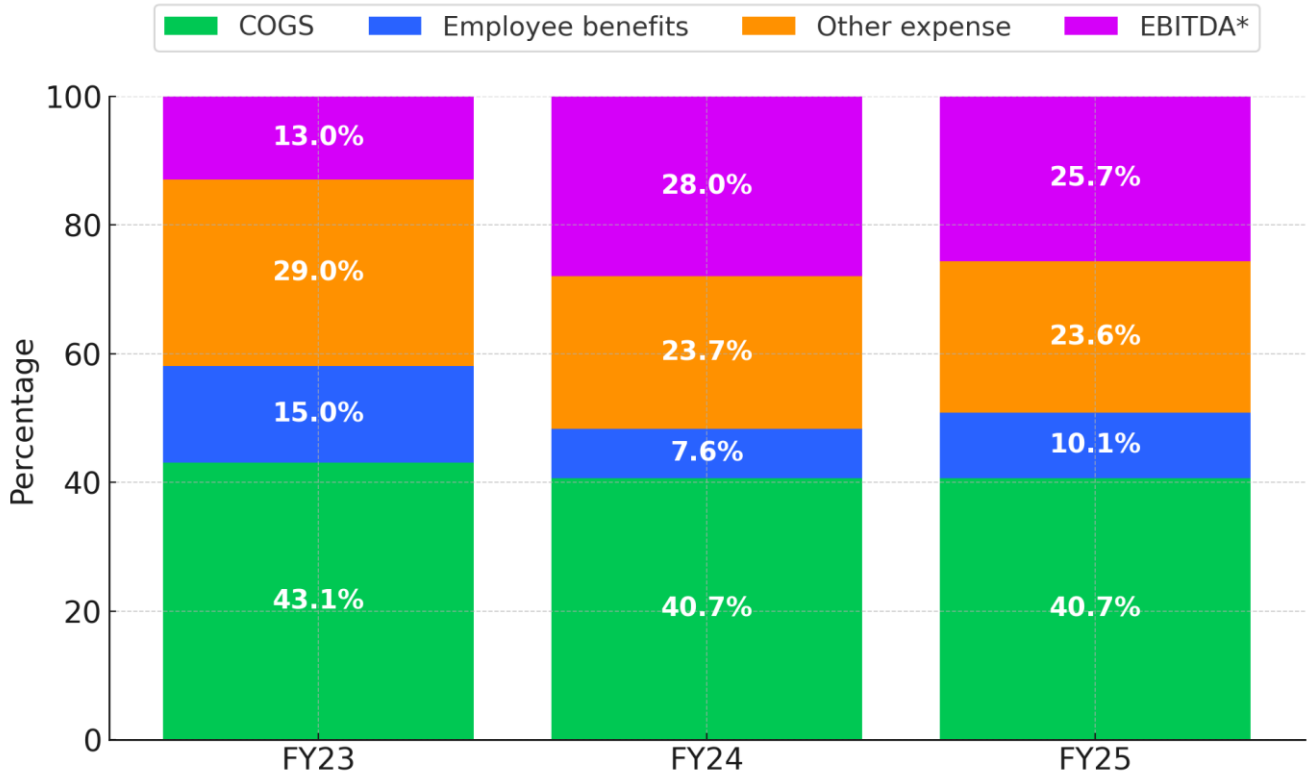
- Focused on point-of-care molecular diagnostics
- Recently filed DRHP in Aug'25
- Temasek & Motilal Oswal are early investors in the company
- “Truenat” is a novel platform developed in India; patented in more than 100 countries
- Operates in an oligopolistic market with high entry barriers
- Molbio’s platform underwent 13 years of R&D to obtain ICMR certification
- Company is more niche but an interesting player for tool/instrument suppliers in India

Shareholding Pattern



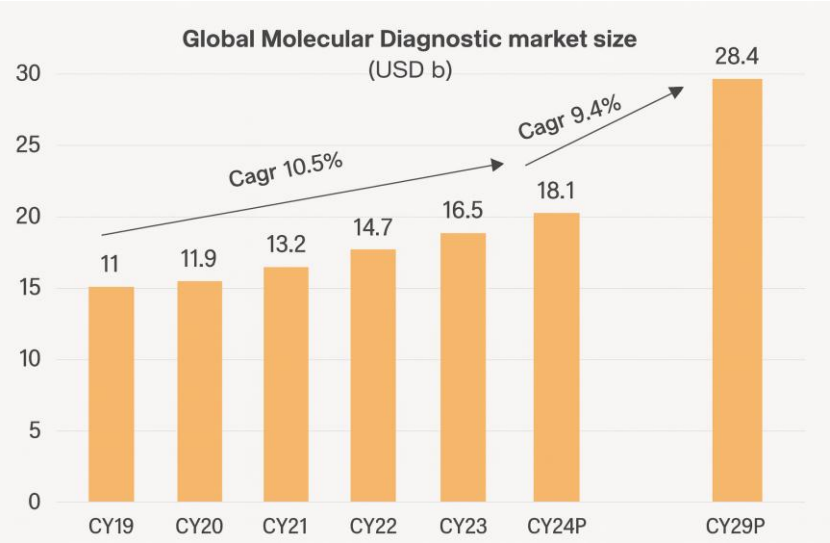
Source : DRHP

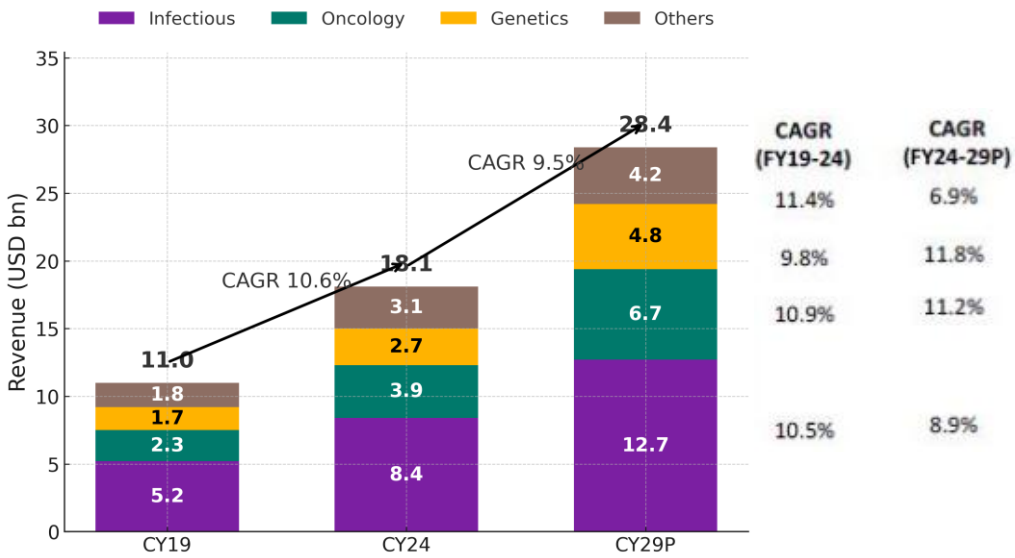
P&L Break-up



(Source : DRHP)

Molecular Diagnostic Market





(Source : DRHP)

Transasia Bio-Medicals Ltd

- Founded by Mr. Suresh Vazirani in 1979 – Disease testing
- Early struggles to penetrate Indian market
- 1995 - started Erba Mannheim, Germany with the vision to bring world class European technology to emerging markets
- Started manufacturing IVD products in India (largest Co)
- Offers broad range of instruments + reagents: clinical chemistry, immunology, molecular diagnostics
- Made acquisitions in US, Czech Republic, Turkey, UK etc;
- Exports in 100+ countries; Turnover > Rs 1000 Crs

Meril Life Sciences

- Tools cum medical device company, headquartered in Gujarat
- Founded in 2006, manufactures Implants for joints, vascular devices, robotics
- Meril Life Sciences operates in over 100+ countries
- 2022 - Company raised funding of US$210 million (~ Rs 1600 crores) from Warburg Pincus,
- 2023 - Agreement with Japanese company, granting excl rights to promote Meril's heart valve after approval by Pharmaceuticals & Medical Devices Agency, Japan
- More than 400 R&D experts like Doctors, Engineers, material science experts

Industry growth factors

- Pharma R&D spending
- Surge in diagnostics, screening & preventive healthcare
- Digitization & automation of Labs
- Regulatory push for quality & compliance
- Outsourcing boom (CROs, CDMOs)
- Ageing population

Major Risks

- High dependence on R&D spending cycles
- Covid digestion
- China weakness
- M&A execution risk
- Low funding in small biotech
- Talent & Technical workforce

Thank You