



**TERKAR**<sup>®</sup>  
CAPITAL

# Biotechnology & Genomics Industry

Working Capital Management & Financing Guide

# Biotech & Genomics – Overview (2026)

~\$130 Billion

MARKET SIZE (2026)

10,000+

BIO-BASED STARTUPS

21.2% CAGR

GENOMICS GROWTH

60%

VACCINE GLOBAL SHARE

4.3%

R&D REVENUE SPEND

**The Genomics Revolution:** Successfully cataloged 10,000 Indian genomes for precision medicine.

**Biopharma SHAKTI:** ₹10,000 Cr govt outlay accelerating production of next-gen mRNA vaccines.

**AI in R&D:** Machine learning reducing "Lab-to-Market" timeline from 10 years to under 6 years.

**Synthetic Biology:** Engineering microbes for biofuels and climate-resilient, gene-edited crops.

**Agricultural Biotech:** High demand for CRISPR-edited seeds to ensure national food security.

# Operational Process in Biotech



## R&D & Discovery

2-4 Years

Target identification, lead optimization, and AI simulations.



## Clinical Trials

3-7 Years

Phase I-III safety and efficacy testing with human validation.



## Regulatory Approval

6-12 Months

DCGI/CDSCO filing, quality audits, and licensing.



## Bio-Manufacturing

Ongoing

Scaling fermentation, cell culture, and cold-chain logistics.



### Pre-clinical Stage

Animal trials & molecular modeling



### Clinical Stage

Human data & validation cycles



### Market Launch

Regulatory clearance & distribution

# Key Resources & Inputs



## Specialized Infra

BSL-3 labs, clean rooms, bioreactors, and high-throughput sequencers.



## Human Capital

Molecular biologists, bio-informaticians, and clinical trial managers.



## Consumables

High-purity reagents, media, and CRISPR-Cas9 enzyme kits.



## Intellectual Property

Patents for novel molecular entities (NMEs) and cell lines.



## Regulatory Framework

Drugs and Cosmetics Act, IBSC clearances, and registrations.



## Bio-informatics

SaaS platforms for genomic data analysis and drug modeling.

# Service Deliverables & Revenue Streams

Category	Deliverables	Revenue Stream
Therapeutics	Biologics, biosimilars, mRNA vaccines	Product Sales
Genomic Services	DTC genetic testing, diagnostics	Service Fees
Bio-Agri	Genetically modified/edited seeds	B2B Sales
Contract Research	Outsourced R&D (CRO/CDMO)	Milestone Payments
Bio-informatics	Cloud drug modeling & analytics	SaaS / Licensing

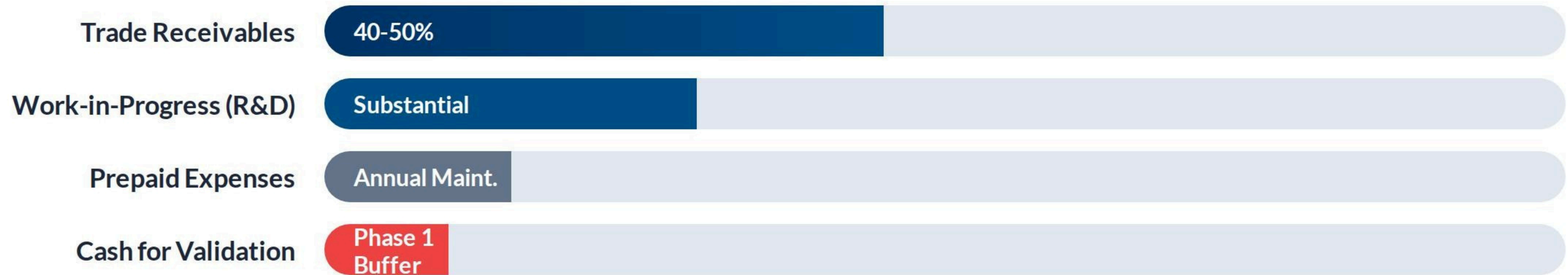
# Working Capital Cycle in Biotech



$$\begin{array}{ccccccc} \mathbf{60-120} & + & \mathbf{90-150} & - & \mathbf{30-60} & = & \mathbf{120-200} \\ \text{Inventory (Reagents)} & & \text{Accounts Receivable} & & \text{Accounts Payable} & & \text{Net Cash Gap} \end{array}$$

**The Cash Gap:** Biotech firms face a staggering 120 to 200-day liquidity gap, driven by long R&D lead times and delayed milestone payments from partners or large government agencies.

# Current Asset Composition



**Critical Insight:** Large reserves are mandatory for "Phase 1 Translation"—the bridge to reach human data.

# Common Mistakes to Avoid



- ✘ **Ignoring Regulatory Mapping:** Overlooking "Test Licenses" before starting pre-clinical work, leading to 6-month delays.
- ✘ **Poor Human Data Strategy:** Over-investing in pre-clinical without a path to Phase 1; "no buyer touches an asset without human data."
- ✘ **Underestimating Import Dependency:** Failing to hedge against price volatility of imported reagents (60% of inputs).
- ✘ **Over-leveraging too Early:** Taking high-interest debt before reaching TRL-6 (Technology Readiness Level).

# Standard Operating Metrics (2026)

Metric	Industry Standard (2026)	Benchmarking Goal
R&D as % of Revenue	12% - 18%	Focus on Innovators
Success Rate	< 15%	Discovery to Phase I
EBITDA Margin	25% - 35%	Biosimilars focused
Cash Runway	18 - 24 Months	Maintain Liquidity Target
Revenue per Employee	₹60 Lakhs - ₹1.5 Cr	Efficiency Benchmarking

# Revenue Realization Periods



## Diagnostics

0–15 Days

Direct pay or Insurance reimbursement.



## Licensing

30–90 Days

Disbursement post-milestone achievement.



## Govt. Grants

6–12 Months

Staggered BIRAC/BIG disbursements.

**Strategy:** Utilize Milestone-Based Financing and Grant-to-Equity models to maintain liquidity during trial phases.

# Industry Threats & Challenges



## Translation Gap

<15% of startups reach late-stage validation due to lack of PoC funding.



## Talent Attrition

High emigration of PhD graduates (60%) to markets with better R&D infrastructure.



## Import Reliance

Heavy dependence on China and US for advanced laboratory equipment/reagents.

# How Terkar Capital Can Help



- ✓ **Venture Debt:** Extending runway between Series A & B rounds without equity dilution.
- ✓ **Equipment Financing:** Lease-based funding for high-end sequencers and bioreactors.
- ✓ **Grant-Bridge Loans:** Short-term WC up to ₹5 Cr for grant disbursement gaps.
- ✓ **Invoice Discounting:** Immediate liquidity against global pharma MNC invoices.
- ✓ **R&D Expansion:** Structured debt for new BSL-3 facilities or clinical centers.

Fast, flexible financing solutions tailored to the unique cycles of the Biotech industry.



# Partner with Terkar Capital

Accelerating the Financial Momentum of India's Mobility Revolution.



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