



THE STATE OF THE FIELD, IN ONE PAGE

Where the value sits — and what has actually shipped.

An independent, sourced read on the smart-protein economy: where capital flows, what has cleared regulation, and where India and Europe fit. Every figure is dated and cited.

\$881M

PRIVATE INVESTMENT · 2025

Down ~20% YoY; below \$1B for the first time since 2018. >\$19.4B raised since 2016.

\$21.5B → \$80B

MARKET SIZE · 2025 → 2035

~14% CAGR (FMI). Still only ~5% of a ~\$430B global protein market — a long runway.

\$42M → \$4.2B

INDIA SMART PROTEIN · TO 2030

GFI-Deloitte high-growth scenario (incl. exports; range \$1.5B–\$4.2B). ~100× headroom.

2025 PRIVATE INVESTMENT, BY ROUTE

every route fell YoY · fermentation led Q1 2026 (\$121M of \$162M)

Plant-based · 51%

Fermentation · 41%

8%

Plant-based \$450M — flattered by one \$100M Beyond Meat debt round

Fermentation \$357M — fell ~43%, but the B2B-ingredient future

Cultivated \$74M — pre-scale

THE THREE ROUTES

Plant-based · at scale, thin margins

Constraint: **cost & taste parity** vs conventional meat and dairy.

Fermentation · inflecting, B2B

Constraint: **scale-up & media cost** — the factory, not the molecule.

Cultivated · pre-scale

Constraint: **capex & approvals**; dual FDA-USDA review, cost per lb.

INDIA × EUROPE — COMPLEMENTARY STRENGTHS

INDIA LEADS ON

- Growth & policy (BioE3)
- Fermentation manufacturing
- Low capex & feedstock
- Regulatory speed (case-by-case)

EUROPE LEADS ON

- Market size today
- Private capital
- Strain science & IP
- Brand & retail depth

The through-line: the science is largely solved; the next decade is decided by manufacturing capacity, feedstock and cost — where India's pharma-fermentation base gives it a structural edge over Europe's discovery lead.

WHAT'S SHIPPED — PROOF, NOT PROMISES

Formo **CLEARED**

Recombinant **casein** (with Those Vegan Cowboys). Self-affirmed US GRAS Dec 2024; FDA notice GRN 1312, advancing in 2026. B2B ingredient play.

The Protein Brewery **EU-CLEARED**

Fermotein — **first whole-food mycelium approved in the EU** (EFSA Dec 2025, launch Q3 2026), ~6 years after filing. A study in EU regulatory speed.

Perfect Day **SHIPPING**

Recombinant whey. The **only precision-fermentation protein cleared by India's FSSAI**; building a Gujarat plant with Zydus (H2 2026) — a localisation signal.

Vivici & The EVERY Co. **SHIPPING**

Characterised whey (BLG), lactoferrin and egg proteins sold as **B2B ingredients** — the winning go-to-market: own the protein, let manufacturers build the product.

WHY IT MATTERS

Functional performance — a single, characterised protein fraction, identical batch to batch. **Supply-chain resilience** — protein decoupled from herd size, weather and imports (India buys 90%+ of its whey inputs). **Footprint** — days not years, and far less land.

The bottleneck isn't the molecule.
It's the factory.

Two regions solving one
problem from opposite
ends — Europe on
discovery, India on
manufacturing and cost.