



DRIVING SMART MANUFACTURING IN LIFE SCIENCES WITH REAL-TIME DIGITAL OVERSIGHT

Google

4.0 ★★★★★☆

Clutch

4.9 ★★★★★☆

glassdoor

4.5 ★★★★★☆

Countries we operate from



PROBLEM STATEMENT



A global pharmaceutical company was aiming to modernize its manufacturing R&D and production oversight, but was hindered by siloed systems, paper-based data capture, and delayed decision-making.

Batch processing, logging, compliance

No real-time monitoring of operations

Disconnected data across systems

No predictive insights for downtime



INT. implemented a **Smart Manufacturing and R&D Digitization Framework**, tailored to Life Sciences R&D and GMP environments.

- ✓ **IoT-Enabled Factory Data Capture:** Integrate MES and LIMS for seamless operations.
- ✓ **Real-Time Batch Logging:** Automate deviation handling in R&D to enhance compliance.
- ✓ **Digital Twin Models:** Optimize product behavior and yield prior to scaling production.
- ✓ **Unified Dashboard:** Receive live updates on asset health, alerts, and maintenance insights.
- ✓ **Compliance & Audit Logs:** Full traceability for QA and regulatory validation.



6-Step Applied Process

01

Discovery:

Mapped existing lab, MES, ERP, and plant-level data gaps

02

Design:

Co-created event-driven data models with manufacturing and QA teams

03

Device Integration:

Connected sensors, lab instruments, and OT data streams via secure IoT gateways

04

Analytics Enablement:

Built KPI dashboards for lab supervisors, plant heads, and QA leads

05

Pilot Launch:

Deployed for select API production lines with remote dashboards

06

Full Rollout:

Integrated into enterprise systems with audit-ready logs and SLA-backed support

54%

reduction in batch deviation
resolution time through digital
escalation workflows

Real-time dashboards
enabled faster QA approvals
and compliance traceability

22%

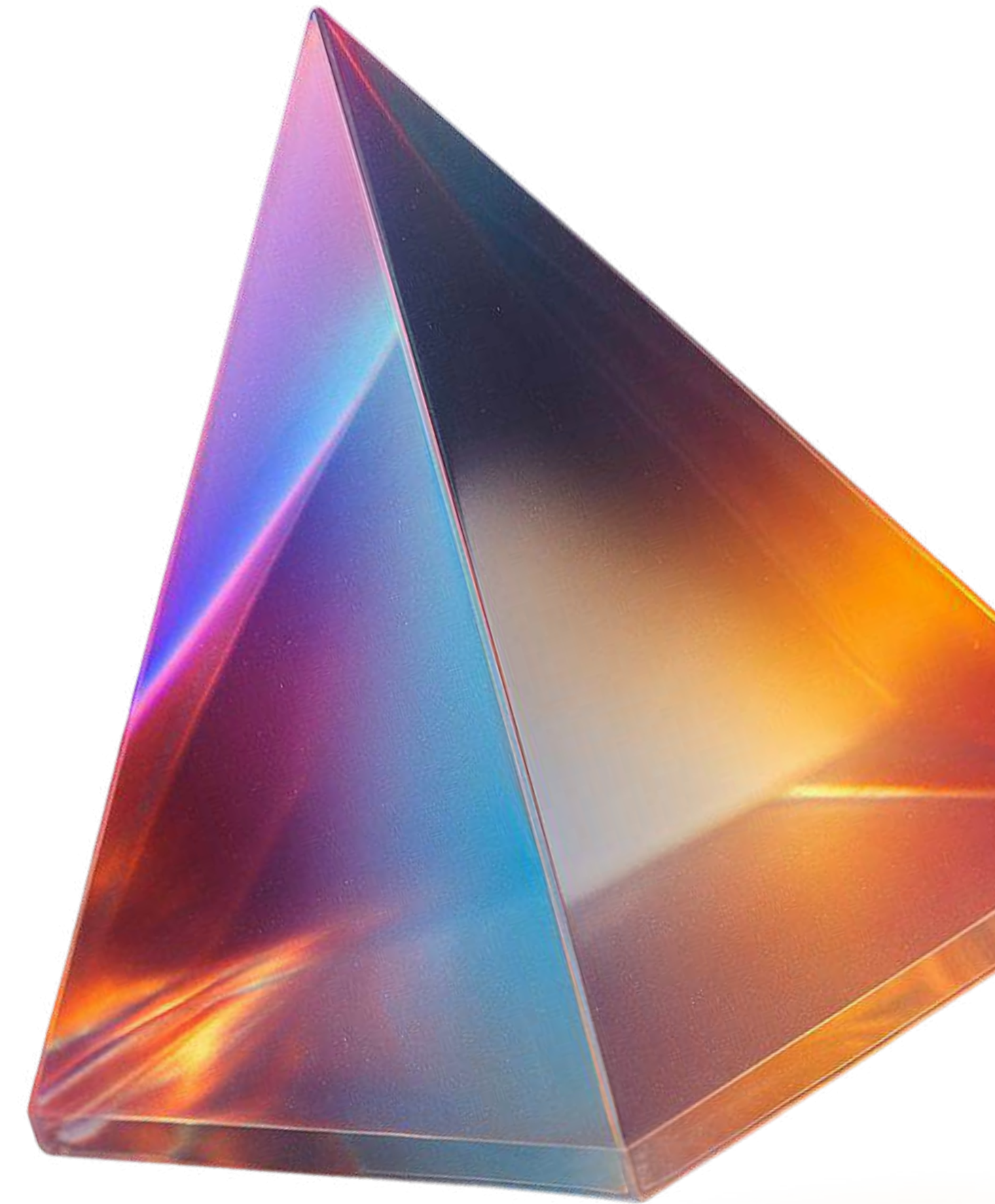
improved machine uptime using
predictive maintenance insights

End-to-end traceability across
formulation, blending, QA, and
packaging

30%

increase in R&D productivity with
digitized formulation iterations

Faster tech transfer from lab
to plant using digital twin
simulations





Let's Help You

Delight Your Customers - The easiest way to achieve growth



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27+ Years

1000+ Professionals

45+ Countries

30+ Awards

INT. (Indus Net Technologies) is an award-winning full-stack software engineering solutions company with a pioneering legacy spanning 27 years, over 500 clients, and 11,000 plus client projects. INT. operates at the confluence of Data, technology, and marketing in the digital space.

