



# Advanced Drug Development Platforms

Life Sciences & Healthcare



Life sciences firms must meet the increasing demands for real time insights on the safety and efficacy of clinical trials from the patients, investigators, and stakeholders involved in these trials. Companies also face stringent regulations mandating standardization of clinical trial data, as well as publication of timely, error-free compliance reports. Drug makers can significantly improve stakeholder engagement, and ensure adherence to treatment norms, by migrating to an integrated clinical service platform that pools in patient information from disparate sources.

Tata Consultancy Services' (TCS') Advanced Drug Development (ADD) is a suite of platforms for the entire clinical R&D value chain. It fosters optimized study planning, accelerates study setup and execution, manages comprehensive and new data sources, derives meaningful insights, enables adherence to safety and regulatory needs, improves patient engagement, and supports adaptive trials. The platform is designed to harness new digital technologies like automation, AI, and IoT—to bring about disruption in clinical research.

## Overview

Life sciences organizations need on-demand access to accurate clinical trial data in order to make swift, informed calls on clinical studies. However, they face several challenges on this front, including inconsistent trial data, inefficient clinical development processes, and low visibility into treatment adherence. Pharmaceutical companies' existing systems lack a compatible interface with new data sources such as the Internet of Things (IoT), mobile devices, patient diaries, and electronic clinical outcome assessments (eCOA). Suboptimal harmonization of trial data can hinder effective mid-course correction during actual studies, complicating the entire process and running up costs. Further, inefficient study setup and execution can pose a serious risk to patient safety, as well as lead to regulatory non-compliance.

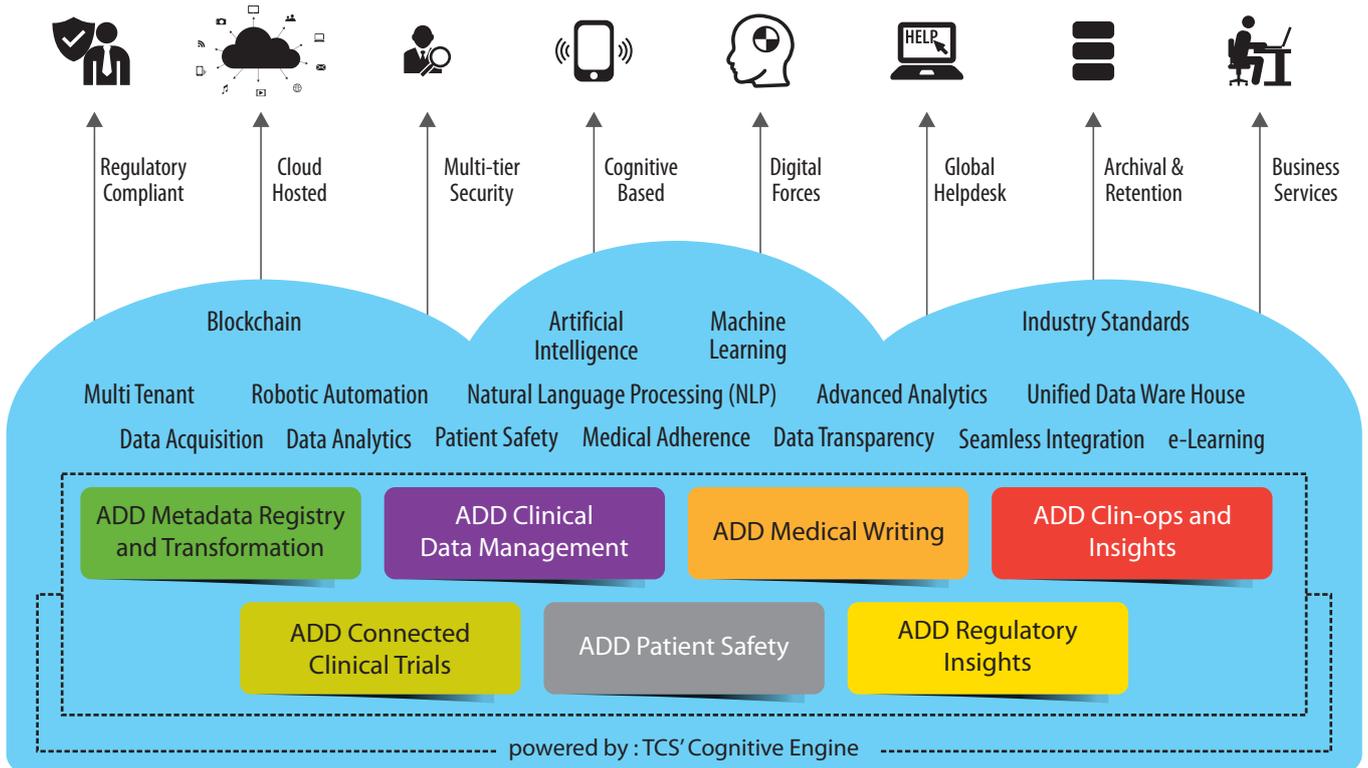
TCS' ADD platform solution provision cost effective clinical service platforms, integrating key features of our intellectual property (IP) assets with commercial off-the-shelf offerings. The plug-and-play system empowers firms to minimize errors in clinical studies by automating the entire clinical trial process. It enables companies to create a comprehensive and readily accessible data source for all of their analytical requirements during trials. The suite of platforms also provides real-time access to data for robust treatment adherence, and helps drug makers respond swiftly to regulatory queries with auto-generated compliance reports.

## Our Solution

Key platforms of our cloud-based platform suite include:

- **ADD Metadata Registry and Transformation (MRT):**
  - Enables metadata-driven standards lifecycle management and supports downstream clinical study data transformation
  - Supports study design, setup, and conversion of clinical data into standard format for greater interoperability across the clinical trial phases
- **ADD Clinical Data Management (CDM):**
  - Enables robust EDC functionalities to support study setup, conduct, and close out phases
  - Includes capabilities such as eCRF/Non-CRF data management, medical coding, terminology management, and narrative writing
- **ADD Clin-ops and Insights:**
  - Provides Clinical Data Repository and monitors Clinical Operations with Analytics and Insights
  - Facilitates comprehensive risk management, signal detection, and centralized monitoring
- **ADD Connected Clinical Trials:**
  - Fosters digital patient engagement and communication along with intelligent trial medication
  - Enables adaptive trial design and virtual trial approach
- **ADD Patient Safety:** Manages safety case processing and all aspects of pharmacovigilance in a predictable and cost effective manner
- **ADD Regulatory Insights:** Provides analytics and insight on regulatory submission and ensures overall compliance

## Advanced Drug Development – ADD Platforms



Outcomes Based Offering | Transfers Capex to Opex | Reduces Sponsor's Oversight

## Benefits

TCS' Advanced Drug Development suite of platforms help pharmaceutical and biotechnology companies reap the following benefits:



**Reduced time to market:** Significantly reduce the time to market for new drugs by streamlining workflows across the end-to-end clinical trial lifecycle; secure faster drug approvals through swift regulatory filings.



**Regulatory compliance:** Fully conform to evolving regulatory requirements, without disrupting regular operations; respond swiftly to queries with auto-generated, submission-ready reports.



**Improved patient safety:** Use the integrated clinical service setup to diligently track adverse events, and follow up with patients, thus boosting their safety.



**Enhanced trial productivity:** Rapidly enroll appropriate patients for clinical studies by harnessing mobile devices; reduce manual efforts and minimize errors to boost process efficiency.



**Future Ready:** Enable clinical trials to be more adaptive, personalized, and automated.

## The TCS Advantage

By partnering with us, you can leverage the following differentiators:

**Domain expertise:** Advanced Drug Development platforms have been developed by our cross-functional teams comprising practitioners and technologists with deep domain expertise. We have a team of over 200 professionals who have worked on a diverse range of clinical trial activities. Our pool of subject matter experts have an average experience of approximately 15 years in managing global clinical projects, site selection, and clinical monitoring.

**Delivery Model:** ADD platform applies Machine First Delivery Model™ (MFDM™) based on Robotic Automation, Cognitive Computing, and Machine Learning, which enables resolution of industry problems to achieve business outcomes faster with reduced risks.

**Easy assimilation:** The platform can be set up in a short timeframe, and integrated smoothly with existing enterprise systems. The application is easy to use, and requires minimal user training.

**Digital Recognition:** TCS has been named a Leader in Everest Group's Services PEAK Matrix™ 2018 for Life Sciences Digital Services in **North America and Europe**. The report cites TCS focus on next-generation digital solutions such as Advanced Drug Development Platform leveraging AI and IoT for drug development and patient engagement.

**Analyst recognition:** TCS has been recognized as a Leader in the IDC MarketScape for Worldwide Life Sciences R&D ITO, R&D BPO, and R&D Strategic Consulting Services 2018. Among other strengths, the report cites TCS' innovation offering, the Advanced Drug Development platform, which provides BPaaS solutions based on cognitive computing, artificial intelligence (AI), and robotics automation.

## Awards & Recognition



### To know more

Visit the [Life Sciences & Healthcare](#) page on [tcs.com](#)  
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### About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

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