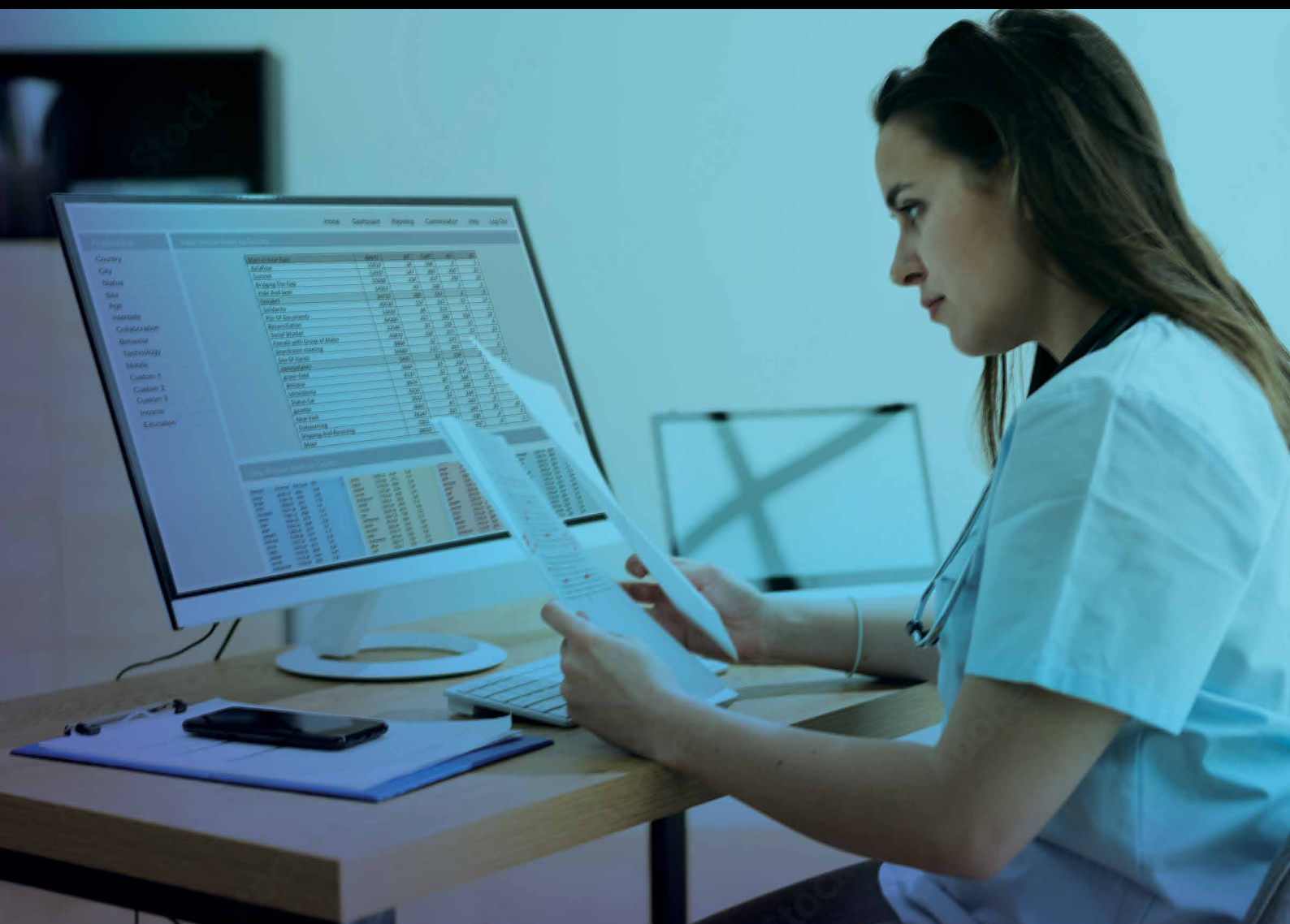


TCS ADD™

Analytics and Insights





The life sciences sector is at a unique inflection point. Advancements in medicine and emerging demand have opened up new potential markets – however, absence of centralized information with data present in diverse systems & formats and reliance on human memory in the clinical trial site selection and execution process impedes market deployment. The firms need a data-science led solution that leverages next-generation technologies such as AI & ML to provide predictive use cases like adaptive monitoring and site feasibility to for quicker data-driven decisions and greater market success.

Our TCS ADD™ Analytics and Insights platform enables a single pane of glass for site monitoring insights, accelerating site selection, and product market submission. The platform ingests data from both internal (project management tools, budgeting systems, master data management systems) and external (wearables, government websites) channels. The solution speeds-up study start-up and targeted interventions. The companies can use our platform to select the best-fit sites, informed by patient population insights and performance metrics.

Overview

Currently, life sciences industries follow a highly siloed methodology to monitor and select sites for clinical trials. In the absence of a unified clinical database, there are several management inefficiencies – not to mention dissonance between multiple data sources, latencies, and formats. As a result, it becomes difficult to make timely decisions (for example, resource allocation), denting the timelines and efficacy of the trials. Clearly, life sciences companies need to integrate and apply advanced analytics to the fragmented data if they are to achieve optimal efficiency when managing trials.

The TCS ADD™ Analytics and Insights platform helps companies achieve a consolidated view of critical information pertaining to site monitoring, site selection, feasibility and project management. The platform offers a complete suite of modular features with out-of-the-box key performance and risk indicator library and workflow for effective risk assessment and communication. TCS ADD™ Analytics and Insights offers discrete analytics models to ingest data from multiple sources such as EDC, IWRS, central lab, safety portal etc via clinical data fabric, conduct data-driven feasibility assessments, and drive risk-based monitoring. This equips companies with tailored insights, enabling smarter trial decisions.

Our solution

The TCS ADD™ Analytics and Insights platform comprises four key components:

Risk-Based Monitoring

The adaptive, data science led collaborative platform enables risk-based quality management driven by predictive analytics and facilitates early detection of risks and proactive monitoring strategies.

- Helps with Integrated risk assessment & categorization
- Provides configurable KPI/KRI library
- Provisions real-life predictive analytics basis a model trained on historical data

Clinical Data Fabric

The Clinical Data Fabric solution provides a unified, interoperable, harmonized and AI/ML driven foundation for all data types, such as clinical, operational and scientific data.

- Aids data ingestion from multiple sources
- Provides a multi-layered data as a service architecture with plug-n-play orchestration
- Democratizes data for faster meaningful insights

Medical Monitoring

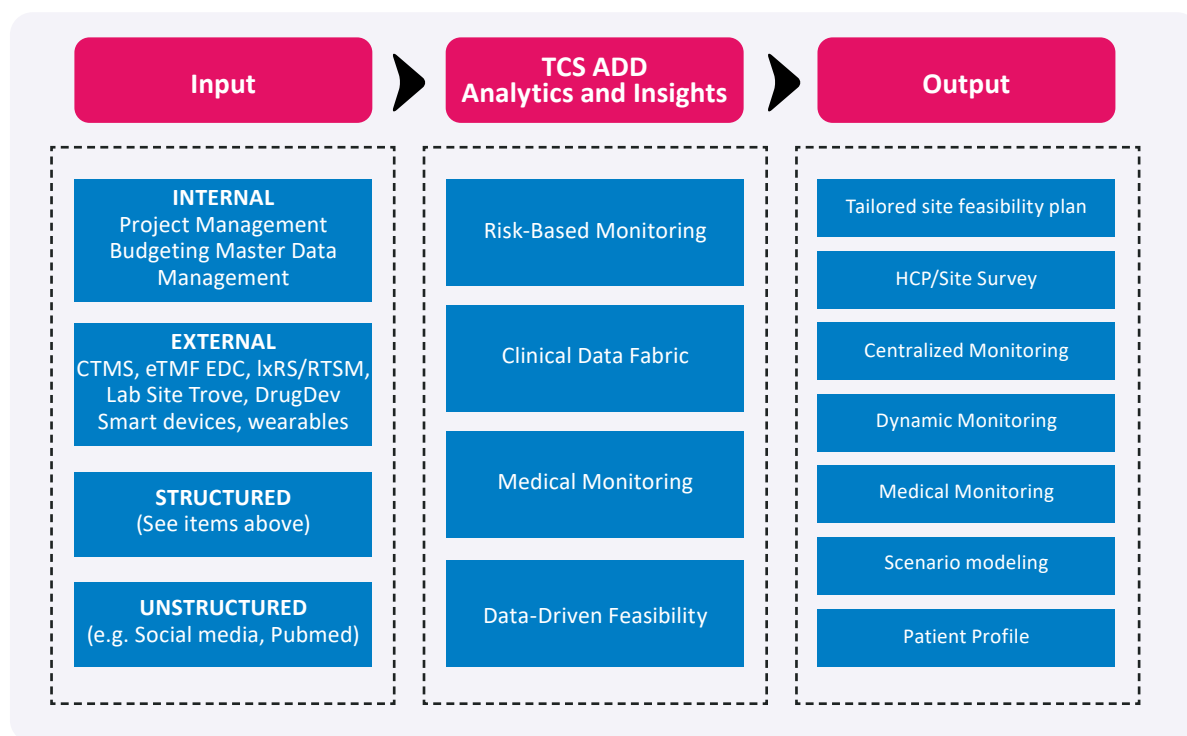
The AI/ML based advanced and integrated solution enables seamless monitoring of patient's medical data using intelligent and automated clinical analytics for timely decision making.

- Facilitates patient profiling
- Provisions interactive visualizations to identify trends and patterns

Data-Driven Feasibility

The solution enables a dynamic approach to site selection by collating past and current site performance data supported with the right patient, facilities and other parameters.

- Enables automated site ranking and tiers incorporates Indication, Protocol and Site Feasibility Modules
- Provisions flexible & dynamic feasibility plans
- Facilitates integrated e-Surveys



TCS ADD™ Analytics and Insights: Schematic Overview

Benefits

By utilizing the TCS ADD™ Analytics and Insights platform, companies can:

Increase efficiencies: Reduce site monitoring costs by 20% through triggered remote monitoring, targeted Source Data Verification (SDV), and predictive analytics.

Reduce workloads: enhance efficiency by 30%; Enable data access and drill down navigation with integrated task lists; leverage use case-specific algorithms and visualizations for quick and easy decisions (for example, understanding training effectiveness) when conducting trials.

Improve data quality and oversight: Optimize data quality & integrity by detecting duplicates, collecting any missing data, and achieving early identification of trends and signals.

Improve patient safety: Provisions next-gen analytics for Intelligent insights into signals related to outliers, trends and patterns resulting in improved patient safety

Increase compliance: Provides a unified and collated list of pending activities across all source systems used in the study for increased compliance

Accelerate the product market submission process: Automate data ingestion from various data sources to extract insights through AI/ML, expediting the development of use case-specific algorithms and visualizations. Additionally, a unique low code/no code approach provides accelerated study setup, thereby, expediting the product market submission process.



The TCS advantage

By partnering with TCS, companies can leverage the following key differentiators:



Cross-Industry Collaboration:

TCS ADD™ hosted a customer partnered virtual event that provided insights into a data sciences led approach to risk-based monitoring in clinical trials. Thought leaders from major global pharma organizations and TCS presented their views on the role played by predictive analytics and Artificial Intelligence (AI) in dynamic monitoring and oversight of clinical trials.



Scalability:

Life sciences companies can scale up the TCS ADD™ Analytics and Insights solution to any level commensurate to the business needs on hand.



Modular:

The platform is highly modular with its components capable of being implemented separately or in combination, mapped to the business requirement.



Flexible:

Companies can implement the platform as a standalone solution, on top of the existing solutions, or integrated with other TCS solutions for life sciences.



Cross-solution integration:

The platform supports easy and seamless integration with other TCS ADD™ offerings such as Data Standardization & Biometrics solution for SDTM automation, etc.



End-to-end offering:

TCS provides IP-led solutions combined with clinical services capabilities that can help life sciences organizations to leverage a one-stop destination for serving all business requirements.



Technology and domain expertise:

TCS certified subject matter experts combine the capabilities as clinical research service providers, platform solution providers, and global systems integrators to deliver strategic solutions fulfilling all customer requirements.



Awards and accolades



About TCS ADD Platforms

TCS ADD is a modern and open drug development platform for life sciences that enables digital ecosystems, simplifies data complexity and provides faster access to new and effective drugs for patients in need. The platform is powered by our proprietary cognitive intelligence engine data driven smart analytics and Internet of Things (IoT) that makes clinical trials more agile and safe. TCS ADD leverages the best of cloud architecture and personalized user experience design in compliance with quality guidelines and privacy regulations.

To know more

Visit <https://www.tcs.com/tcs-add> on www.tcs.com

Email: add.platform@tcs.com

About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is a purpose-led transformation partner to many of the world's largest businesses. For more than 50 years, it has been collaborating with clients and communities to build a greater future through innovation and collective knowledge. TCS offers an integrated portfolio of cognitive powered business, technology, and engineering services and solutions. The company's 500,000 consultants in 46 countries help empower individuals, enterprises, and societies to build on belief.

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