



DRIVE EFFICIENCIES, UNLOCK PROFITS AND CUT COSTS

Strategic Data Application in Life Sciences and Pharmaceuticals



COMPETITIVE REALITY

- ↑ ↓ Increased regulatory scrutiny on a global basis
- ↑ ↓ Requirements that increase research and development costs while forcing a shift to an outcomes-based reimbursement model
- ↑ ↓ More stringent guidelines that make finding successful drugs more difficult
- ↑ ↓ Changing global patent regimes increase competition from generic drug makers
- ↑ ↓ More risk, less upside



GAINING THE ADVANTAGE

- ↑ ↓ Analyze and comprehend floods of new data sources, such as connected devices, patient monitoring and digital health records
- ↑ ↓ Improve the efficiency of clinical trials, bring drugs to market faster, reduce operating inefficiencies and make sales teams more successful



DID YOU KNOW?

- Pharmaceutical organizations carefully model potential drug profitability and optimize clinical trials to combat costs
- To achieve results, sales efforts must be sharper and better focused from understanding physician subscription patterns and purchase renewal schedules to holistic trends leading to changes in demand for specific medications



CORE DATA CHALLENGE

- ↑ ↓ Being a data-driven organization requires mastery of both traditional life sciences data sources and a host of new data feeds

Key Data Sources		
Traditional	Digitization of Everything	
Clinical trial outcomes	Census data	Physician databases
Clinical trial site performance assessment	Electronic medical records	Prescription databases
CRM	Historical clinical trial outcomes	Social media feeds
ERP	Medical device feeds	Therapy data
	Medical journal publications	Third-party disease outbreak data

ACCESS MORE DATA WITH SELF-SERVICE DATA PREP

Visual interfaces and machine learning bring together patient and trial data with external feeds to conduct business-relevant analytics

Regulatory and compliance requirements	Mask personally identifiable information	Organizations must take elevated security precautions for data access, change and extraction. From a competitive perspective, R&D data must be properly encrypted and secured to ensure that investments are protected
Multiple formats	Join data from sources that were never designed to link together	Unstructured and semi-structured outputs of patient monitoring devices and social streams are often stored in repositories and provide non-standard data formats that stress traditional business intelligence tools designed for structured data

SELF-SERVICE DATA PREP UNITES AND TRANSFORMS DATA

Empower exploratory analytics	Quickly and easily make data useful without relying on IT	<ul style="list-style-type: none"> • Remove legacy inefficiencies and technical requirements of data prep • Conduct data discovery and analytic transformation
Increase productivity	Reduce time to integrate, cleanse and prepare data across the organization	<ul style="list-style-type: none"> • Utilize more data in analytic tasks • Spend less time bringing all the data together – and more time analyzing it
Provide access to raw source data on demand	Extract data from various formats and sources directly into visualization and business intelligence tools	<ul style="list-style-type: none"> • Reduce demands on IT • Focus on testing hypotheses and making business decisions
Improve organizational data usage	Accelerate the time to clean and manipulate data	<ul style="list-style-type: none"> • Identify and fix data quality anomalies quicker • Consolidate siloed data from past acquisitions and disparate R&D efforts as well as unite core enterprise data with external feeds

Get the blueprint: overcome data aggregation challenges