



White Paper

Transforming Pharma Sales

Central Data Management as Key Enabler for
Predictive Modelling and Next Level
Omnichannel Customer Engagement

Introduction

The healthcare industry is rapidly evolving and understanding the needs of Healthcare Professionals (HCPs) is crucial. Pharmaceutical companies need to have a 360-degree view of the HCPs to identify opportunities for efficient engagement with the HCPs. To design customized HCP journeys that are supported by data-driven decision-making, key insights into the HCP's journey must be derived from real-time visibility of salesforce activities.

A key challenge for most pharma companies today is too much data. Data could be unstructured, non-standardized, disparate, or just too complex to analyze and derive insights.

This is where an effective Data Management strategy is crucial. It will ensure that the data is accurate, accessible, and comparable across various platforms. With the growing volume and diversity of data, the significance of adhering to effective Data Management principles is poised to escalate significantly.

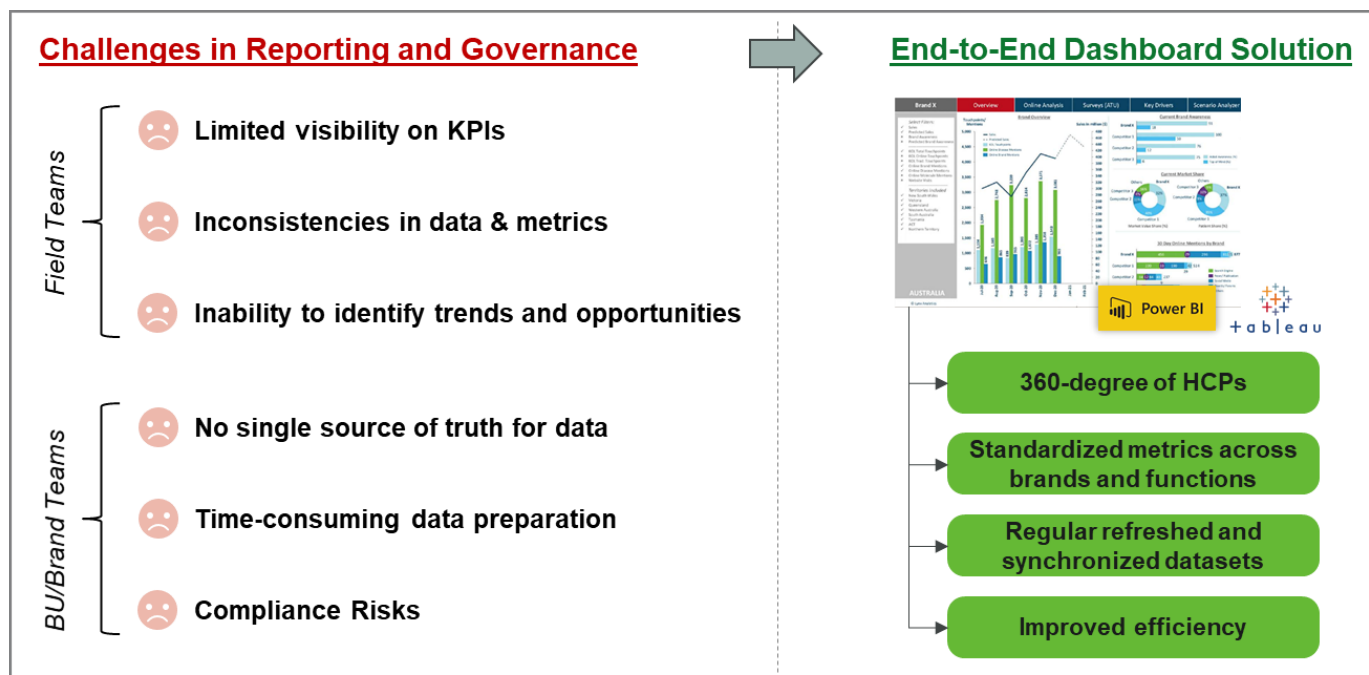
This white paper examines how pharmaceutical firms can enhance their understanding of the HCP journey, generate actionable insights, and ultimately boost engagement and revenue.

Key strategies include establishing a Central Data Warehouse to consolidate information, standardizing reporting and dashboards across functions and business units, and implementing Automated Platforms for Sales Force Effectiveness (SFE) in areas such as Call Planning, Segmentation & Targeting, and Forecast Planning.

Beyond these basics, a well-maintained Central Data Warehouse is required for any productive use of advanced analytics, AI, ML, and LLMs that can unlock next-gen applications such as “Next Best Action”, “Hyper-Personalized Content” or “AI Rep Assistants”.

As Pharma increasingly shifts to an omnichannel and cross-functional operating model, data organization, interoperability, and hygiene are no longer a nice-to-have but become essential for organizations to remain relevant for their customers.

Data Challenges In Pharma Companies



Cross-functional brand teams often face challenges in accessing crucial insights due to data fragmentation across various systems.

This issue can lead to missed opportunities and wasted resources, as different team members have to manually assemble information from different sources.

Furthermore, the absence of a standardized reporting process can hinder the communication of key metrics and insights within the organization, resulting in misaligned goals and overlooked opportunities.

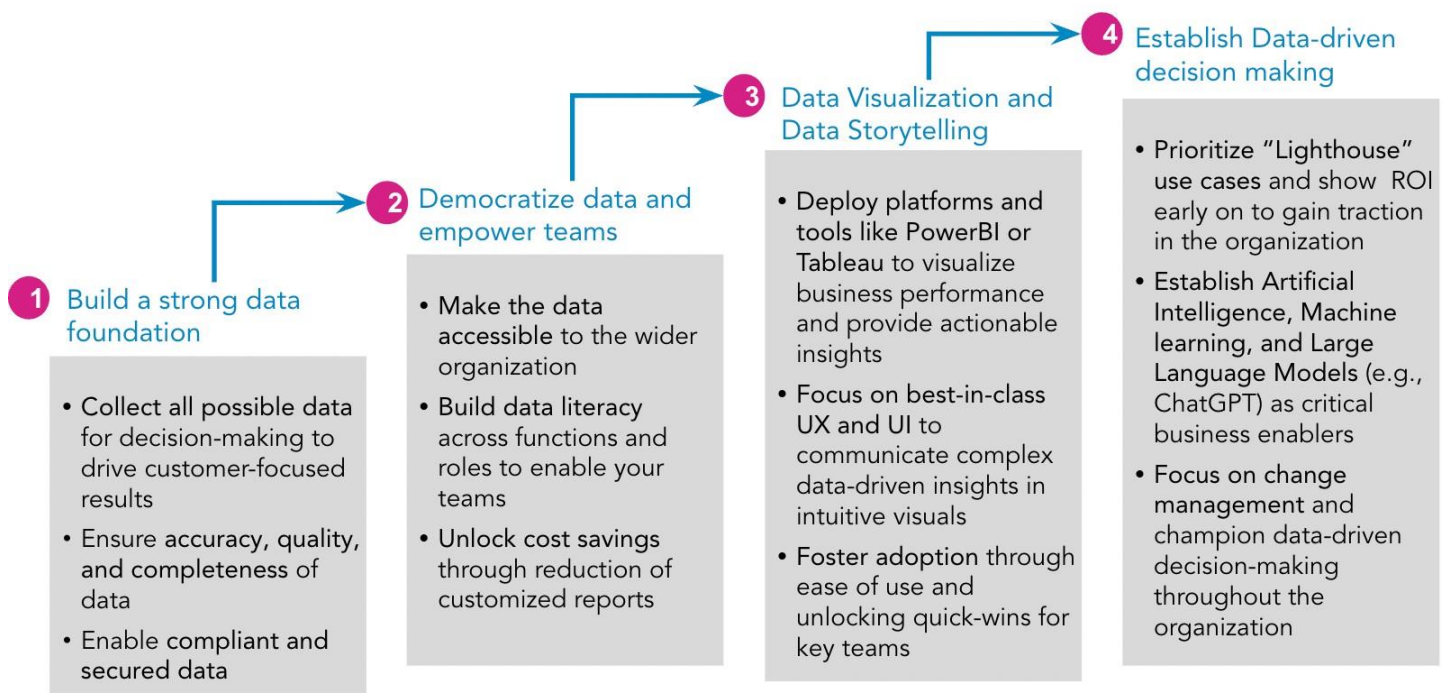
Similarly, brand teams might struggle with end-to-end visibility when tracking marketing campaigns if they rely on

multiple Excel files and PowerPoint presentations patched together.

In the pharma industry, strict regulations govern interactions with HCPs, necessitating compliance with disclosure and transparency rules to mitigate the risks of data breaches, non-compliant practices, and regulatory fines.

Central Data Warehousing offers a solution by providing a single source of truth for Salesforce Effectiveness and Omnichannel Engagement, allowing teams to access necessary insights efficiently.

Data Challenges In Pharma Companies



Consolidating data from various sources into a centralized repository enables sales teams to focus more on utilizing insights rather than searching for information.

Implementing standardized reporting processes ensures everyone works with the same set of metrics, promoting more organizations that apply a data-first philosophy such as IBM, tend to value data as a strategic asset and for its ability to make better-informed decisions.

It involves embedding data collection integration and analytics into every major aspect of their business.

They educate and encourage employees to use and manipulate data to support their decisions.

In a Data-First culture, data is becoming part of the employee’s DNA regardless of their function or seniority.

Today’s pharma companies will tremendously benefit from a Data-First mindset given the novel challenges of Omnichannel, Customer Analytics, and the staggering amount of IT systems they interact with every day, layered with highly complex and sensitive data types.

Data Challenges In Pharma Companies

Based on our experience working with clients across various industries, we have observed that those who adopt a Data-First approach tend to make prompt and well-informed decisions of the type that is much needed in Big Pharma.

When asking about the “How”, we generally find that their approach comes down to four fundamental steps:

Data Foundation

- Quality, completeness, integrity, interoperability, and a universal sense of accountability for data in the organization

Democratization of Data

- Universal access across the organization with tight governance about security and privacy and strong data literacy across technical and customer-facing teams

Versatile Platforms

- Enable data visualization and data storytelling with intuitive and inclusive UIs

Data-Driven Decision-Making

- Anchored deeply in commercial and medical frameworks, enabling rapid, automated, or machine-assisted decisions, supported by powerful AI, ML systems, and LLMs

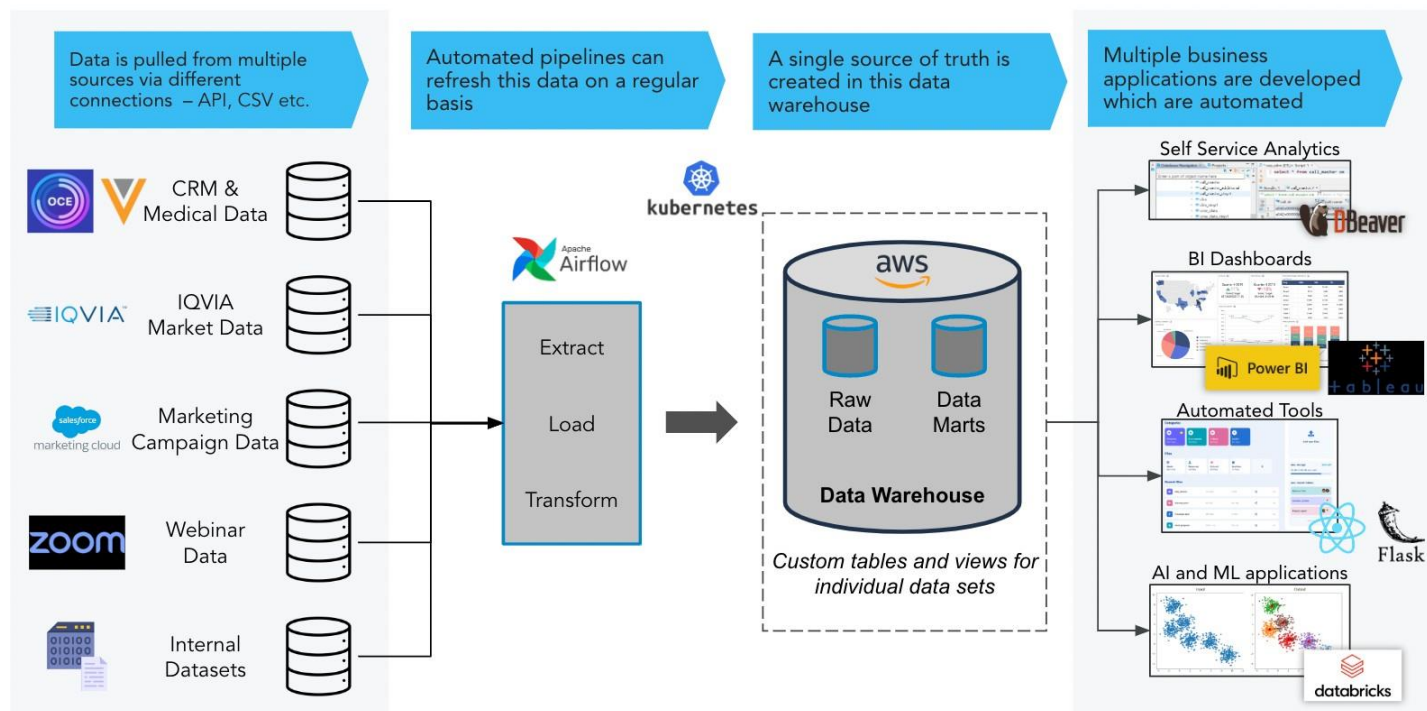
Foundational Data Source

Many pharma leaders would admit that establishing the data foundations is the hardest step to get right.

Pharmaceutical companies usually collect vast amounts of data from various data sources, including sales data, HCP engagement data, market analysis data, campaign data, etc. Traditionally, they have relied on siloed systems to manage their data.

For example, sales teams would use a dedicated system for HCP-level data, while medical teams and MSLs would use a separate system to track activities and discussion topics with their KOLs.






These datasets could be a mix of structured and unstructured data types in different formats. Integrating these datasets would enable business users to generate cross-data insights that would be much richer than those derived from individual datasets.



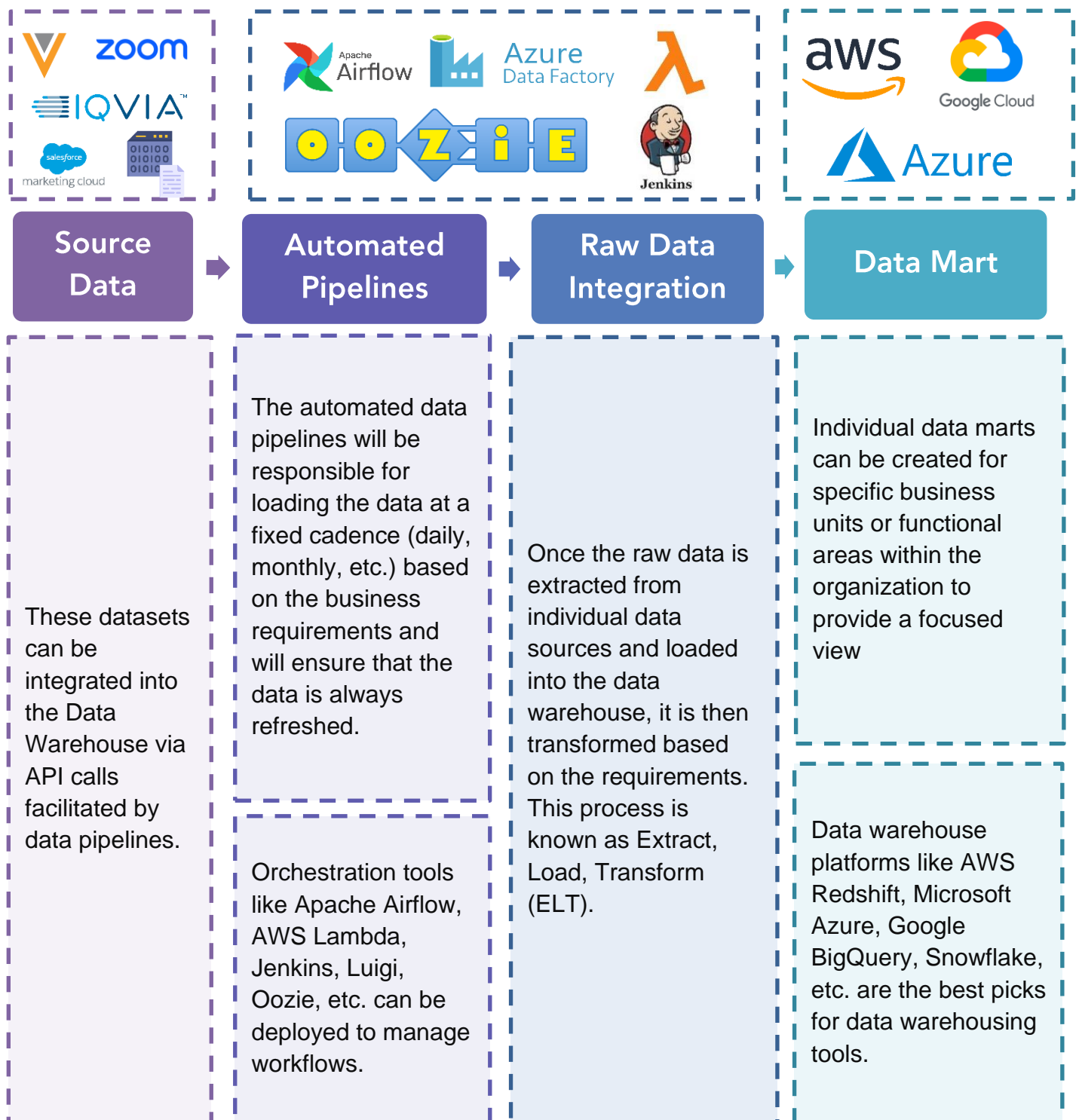
A sample data warehouse architecture that can be scaled for any pharmaceutical company leveraging the existing tech stack

Foundational Data Source

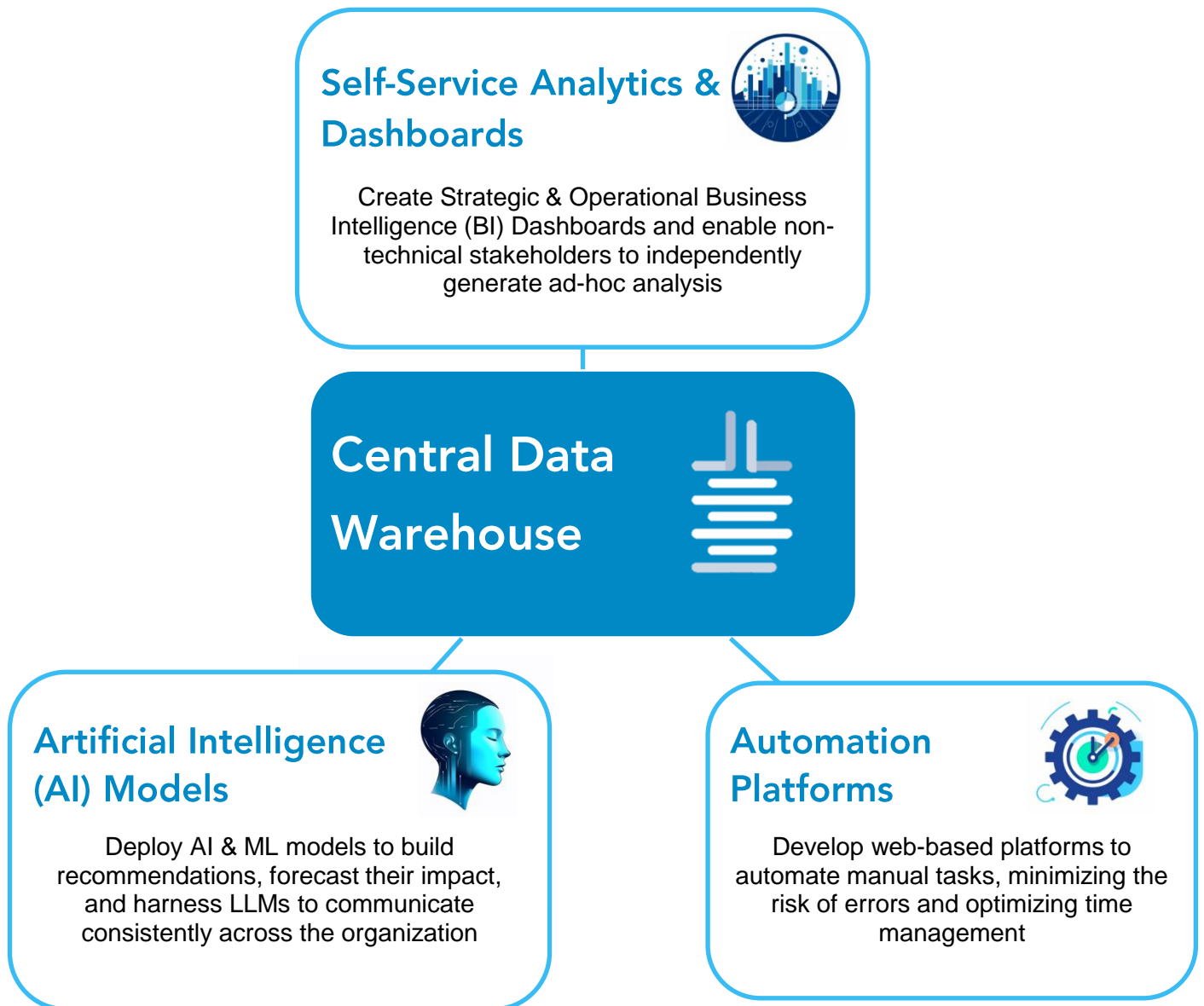
The foundational data warehouse must be able to integrate datasets across different sources to enable downstream applications like Business Intelligence (BI) dashboards, Artificial Intelligence (AI) models, Machine Learning (ML) algorithms, and UI-based automation tools to consume the data to generate relevant and actionable insights for key stakeholders.

Key Data Sources		Potential Challenges
 CRM & Medical Data	Salesforce platform data from Veeva or IQVIA OCE	No common ID between the same customers visited by Medical teams and Commercial teams
 Market Data	Corporation, Brand & Account level competitor data from IQVIA & Zuellig	Extensive data cleansing is required as product names may not be comparable across sources
 Marketing Campaign Data	Campaigns data from trials or new product launches from tools like Salesforce Marketing Cloud (SFMC)	Data may come from several sub-channels that may have different structures. Standardization would be required for data consistency
 Digital Interaction Data like Webinar, Virtual Meetings & Website Activity	Digital HCP Engagement data from tools like Zoom	Large volumes of data of varied data types may be available which could require different approaches for integration
 Internal Datasets	Additional internally maintained datasets like sales, territory allocations, etc	Automation may be challenging; need to identify techniques to reduce manual dependencies

Foundational Data Source



User-Facing Applications



What Is A Data Warehouse?

A data warehouse is a central repository of integrated data from multiple disparate sources through complex architectures. They store current and historical data by creating relationships between datasets in a structured and optimized manner allowing for efficient querying and analysis. They provide a unified view of an organization's data from multiple sources and help create a single source of truth.

Examples of Applications That A Data Warehouse Can Bring To Your Organization

Self-Service Analytics & Dashboards:

- **Salesforce Effectiveness & Omnichannel Engagement:**
Track and analyze SFE KPIs like Call Achievement Rates, HCP Coverage, HCP Reach, etc. and monitor trends in Omnichannel Engagement
- **Campaign Analytics:**
Monitor digital activity, engagement rates, and consent status during ongoing campaigns to understand the effectiveness
- **HCP-360:**
Analyze preferences, behaviors, historical engagements, potential, and all other relevant information about the HCP in a single dashboard
- **Market Competitor Analysis:**
Leverage External Market Data (like IQVIA) to analyze market trends and compare market share growth rates
- **Compliance Tracking:**
Ensure adherence to compliance policies and regulatory requirements to minimize risks

Automation Platforms:

- **Territory Optimization and Call Target Planning:**
Analyze salesforce performance data and historical achievement rates to optimize the allocation of resources across different territories and recommend the optimal number of calls to be made per HCP
- **Incentive Computation:**
Automate the computation of Sales Rep and First Line Sales Manager incentives to minimize calculation errors
- **Training & Development:**
Identify gaps in salesforce's skillset and recommend personalized learning path to ensure that sales representatives are equipped with the necessary skills

Examples of Applications That A Data Warehouse Can Bring To Your Organization

Artificial Intelligence (AI) Models:

- **HCP Targeting & Segmentation**
Identify and prioritize HCPs with the highest potential and predict the Brand Adoption Ladder of HCPs to estimate how “bought into” is the HCP
- **Next Best Action:**
Analyze historical interaction data to develop personalized recommendations on which HCPs to target with what content after certain activities to drive effective HCP engagement
- **Market Mix Modeling:**
Identify key drivers of engagement and their impact on sales to understand the effectiveness of marketing activities and optimal allocation of budgets across channels
- **HCP Digital Affinity**
Leverage web analytics, social media listening, and digital engagement scores to estimate the likelihood of HCPs engaging with digital channels
- **KOL & DOL Identification**
Utilize speaker engagements, publication history, clinical trial participation, and social media activity to identify Key Opinion Leaders (KOLs) and Digital Opinion Leaders (DOLs) in the medical community

Conclusion

In the rapidly changing world of Digital Transformation and AI, healthcare companies can lead the way in harnessing data to create a seamless, engaging experience for HCPs, ultimately driving business success.

By following the steps in this white paper, organizations can break down data silos and fully exploit the power of data to make better decisions for their organizations.

To get there, leaders must champion a Data-First culture, setting clear expectations for data-centric decision-making and fostering a mindset shift across teams.

This requires long-term thinking and investment in tools and talent to support the change process.

Pharma and Healthcare leaders can contribute by adapting the key steps for their organizations: Building a solid data foundation, democratizing data access and literacy, choosing a visualization and data storytelling platform that fits their organization, and finally building out, decision-making tools harnessing AI, ML, and LLM models.

By embracing the power of data analytics coupled with the right data management framework and the right partner, pharmaceutical companies can leverage their data to unlock new opportunities, optimize their operations, and ultimately drive growth.

“We at AstraZeneca Singapore, have had the pleasure of working with Lynx Analytics since 2022 on several analytical initiatives to identify opportunities for optimizing our business operations by leveraging data analytics. The primary goal of these initiatives is to harness the power of the data to generate relevant insights and actionable recommendations for the field force and leadership team.

Their team of experts took the time to understand our business requirements and objectives by conducting key stakeholder interviews. Through a combination of building a stable data management framework and using a data-driven analytical approach, the Lynx team was able to develop automation tools, data science models, and dashboards that catered to the customized needs of the stakeholders.

I was impressed with their ability to provide hands-on support throughout the implementation process and monitor the impact of the initiatives. We are very satisfied with the outcome and the significant improvements we have achieved with Lynx's assistance.”

*Luis Leon
Head of Commercial Excellence, Asia*



Authors



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Dennis is an advisor for Lynx with over 15 years of experience in Healthcare Consulting (McKinsey and IQVIA) and senior commercial roles in leading MNC pharmaceutical companies. His areas of expertise are Digital Transformation, Omnichannel Customer Engagement, Business Intelligence and Advanced Analytics. He holds degrees in Medicine and Biotechnology and an MBA from INSEAD.



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Ankit is a Life Sciences Lead Consultant at Lynx with over 9 years of experience in the healthcare consulting industry (ZS Associates and The Economist Group). He has worked across various advanced analytics projects for Big Pharma and MedTech companies focused on Commercial Excellence and Digital Strategy Enablement. He holds a degree in Mechanical Engineering and an MBA from Nanyang Business School, NTU.



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Harsh is a Business Consultant at Lynx Analytics with over 7 years of experience in Management Consulting, Data Analytics, and Business Intelligence for the Life Sciences and Insurance industry. He holds an Electronics and Telecommunication Engineering degree and an MTech in Business Analytics from National University of Singapore (NUS).

Talk To Us

Lynx Analytics is a leader in artificial intelligence and data science solutions. With a strong expertise in predictive analytic models, Lynx Analytics helps pharmaceutical companies improve commercial capabilities through better tracking, forecasting, sales force effectiveness, multi-channel engagements and closed-loop marketing with big data, artificial intelligence, and predictive analytics.

To learn more, visit www.lynxanalytics.com



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