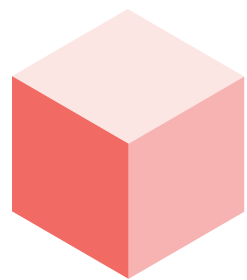
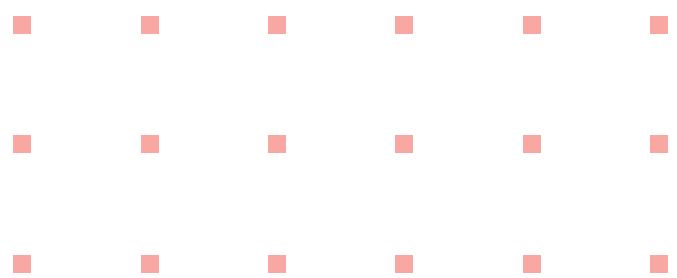
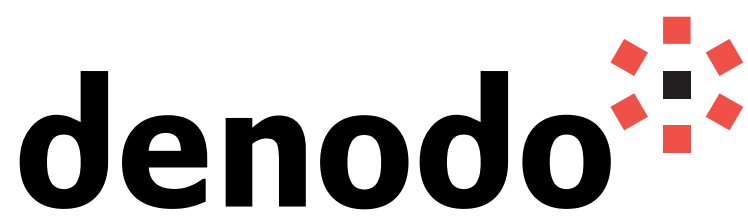


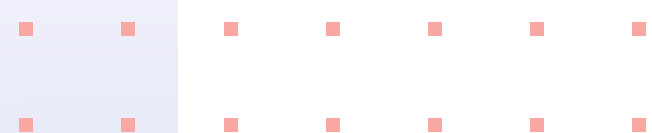
EBOOK



Enabling Continuous Innovation in Life Sciences

Extreme agility meets
strong data governance





CHAPTER 1:
The Life Sciences
Industry Today



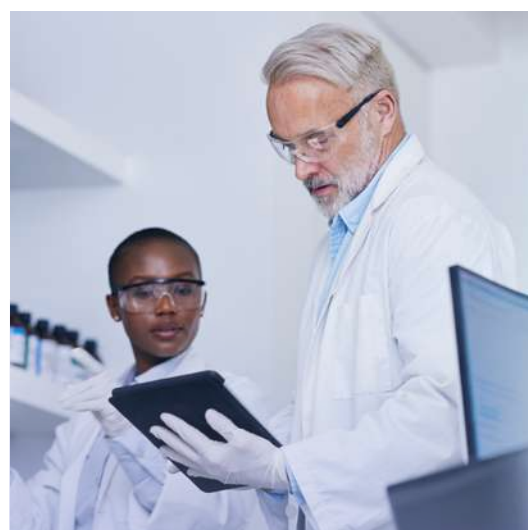
CHAPTER 2:
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Denodo Platform



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Drug Discovery
and Development



CHAPTER 5:
Clinical Trial
Acceleration



CHAPTER 6:
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Accelerating GenAI
Insights with
AI-Ready Data

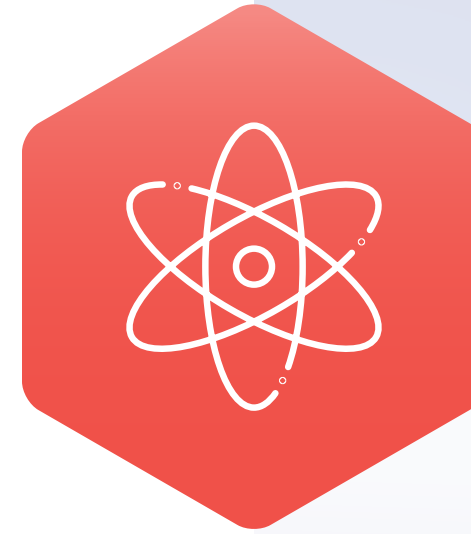
LEARN MORE ABOUT
THE DENODO PLATFORM



CHAPTER 1:

THE LIFE SCIENCES INDUSTRY TODAY

As healthcare needs continue to evolve, the life sciences market strives to meet these needs with innovative new products and services, in a challenging arena characterized by the rising costs of both medicine and research and development (R&D), as well as increasingly complex regulations.



KEY LIFE SCIENCES INITIATIVES

Life Sciences companies launch myriad initiatives to compete in this challenging environment, including:



DRUG DISCOVERY AND DEVELOPMENT

To streamline the process of discovering new drugs and developing new ones based on the characteristics of existing ones



CLINICAL TRIAL ACCELERATION

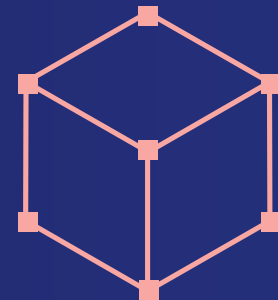
So that clinical trials contribute to the production of new products and services, in the shortest possible timeframe



SUPPLY-CHAIN OPTIMIZATION

To maximize throughput while minimizing downtime across the entire supply chain

Each of these initiatives requires fast, easy access to trusted data.
Unfortunately, despite modern advancements, this continues to be a challenge.



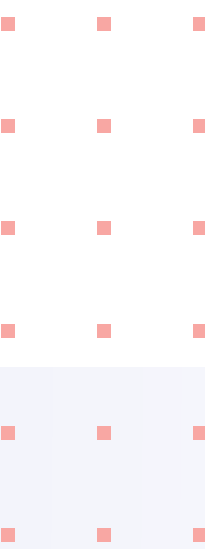
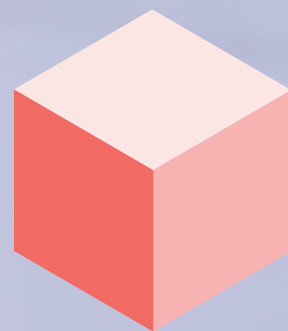
CHAPTER 2:

THE DATA CHALLENGE

Many life sciences companies are leveraging data lakehouses and other data platforms to store all of the necessary data from across the organization.

However, the challenge remains: getting the data **out** of these systems and **into the hands** of business users, when they need it, in a usable format, and in their own language.

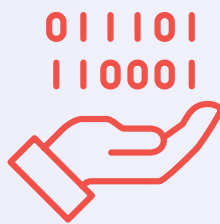




Healthcare organizations need to either:



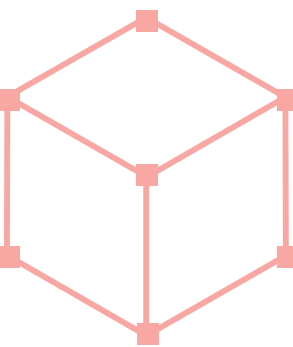
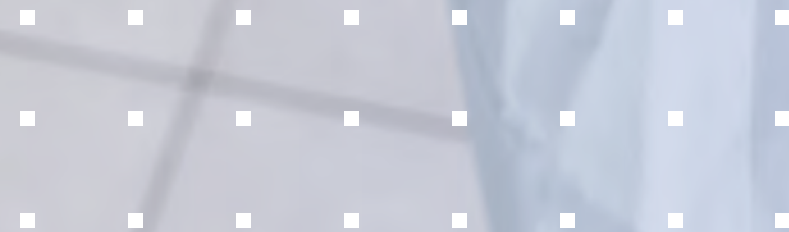
Provision the data for these different users



Establish self-service data access

But implementing either or both of these capabilities is far easier said than done. Numerous individual reporting tools draw data from the central platform and deliver it to individual consumers, but healthcare organizations lack a single, overarching method for delivering all data to multiple users, intelligently prepared to meet their different needs.

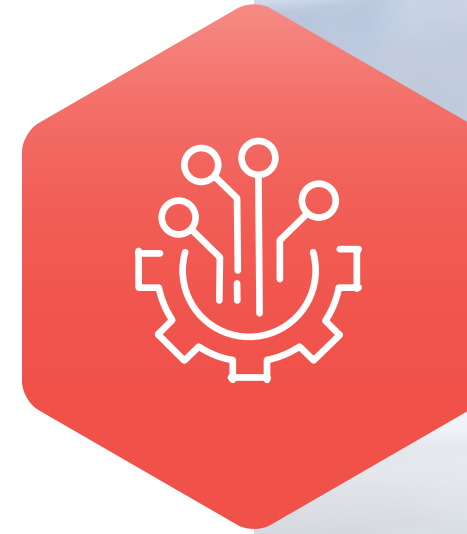
Also, most if not all life sciences initiatives can be accelerated and enhanced by generative AI (GenAI) insights. But to gain such insights, organizations need to be able to provide GenAI applications with governed, authoritative data that is delivered in real-time and in an actionable format.



CHAPTER 3:

LOGICAL DATA MANAGEMENT AND THE DENODO PLATFORM

Logical data management solutions solve the data challenge. “Logical” means that it’s not tied to the restrictions of any one system or reporting tool.

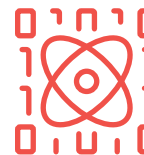


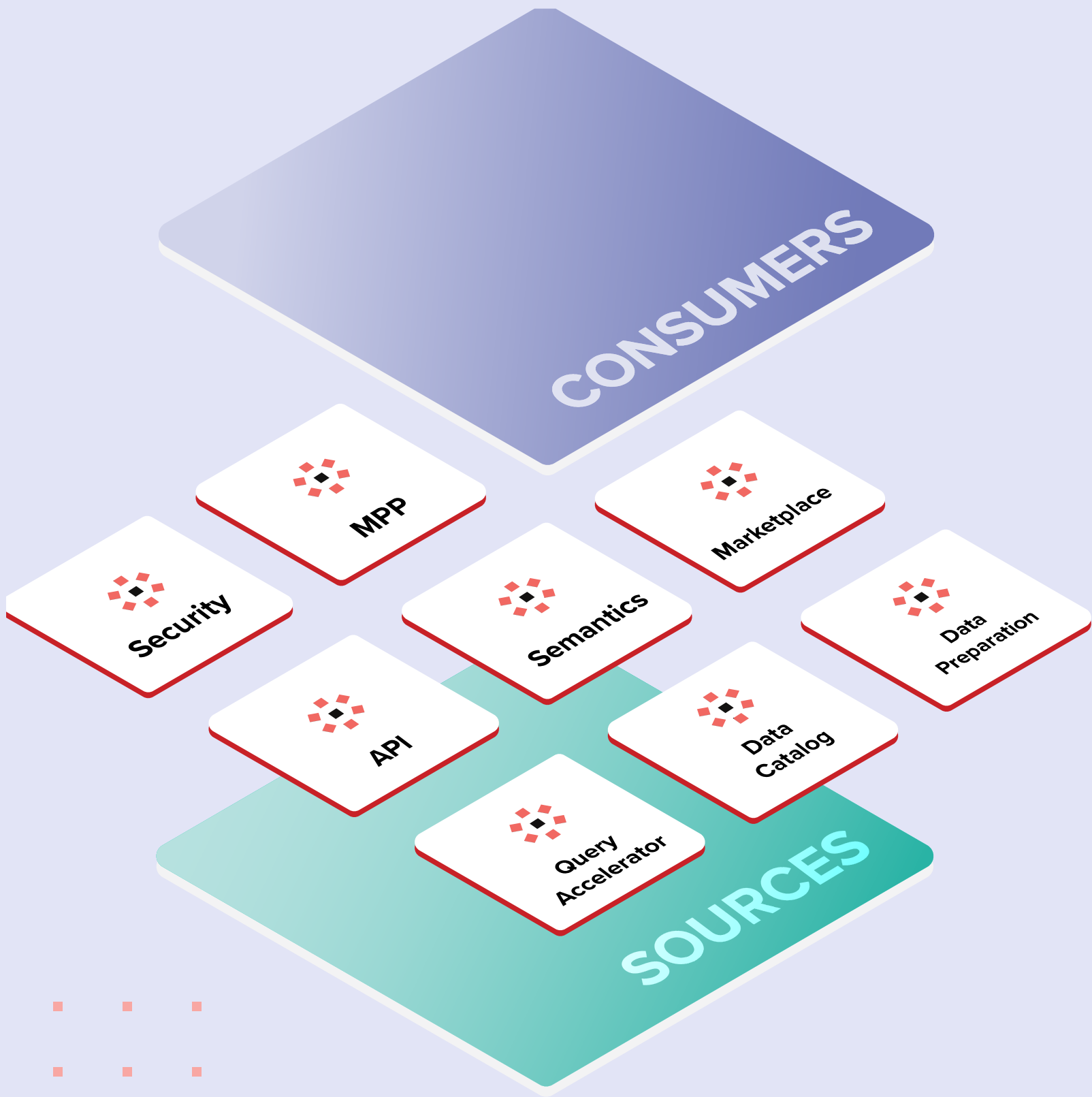
The Denodo Platform is the leading solution for logical data management. Regardless of how and where the data is stored, the Denodo Platform delivers data to business users at the speed of business.

It establishes an enterprise-wide logical layer that abstracts data consumers from the source data, enabling them to access and manipulate abstracted data views without affecting the underlying data.

BECAUSE THIS LAYER IS ENTERPRISE-WIDE, IT PROVIDES

-  **Universal semantics**, automatically transforming data into the language required by different user groups
-  The ability to **develop data products** in an iterative, creative manner, to meet myriad use cases, without affecting the underlying data that feeds them
-  A **future-proof data infrastructure** that enables zero-downtime migrations and modernization efforts, while supporting agile new developments across the entire organization

-  **Data governance** for “guard rails” and data security for protection, risk mitigation, and compliance
-  **Full-featured data catalogs** that list all data in a user-friendly, searchable interface and provide access right from the catalog
-  **AI-ready data** drawn from all across the organization



CHAPTER 4:

DRUG DISCOVERY AND DEVELOPMENT

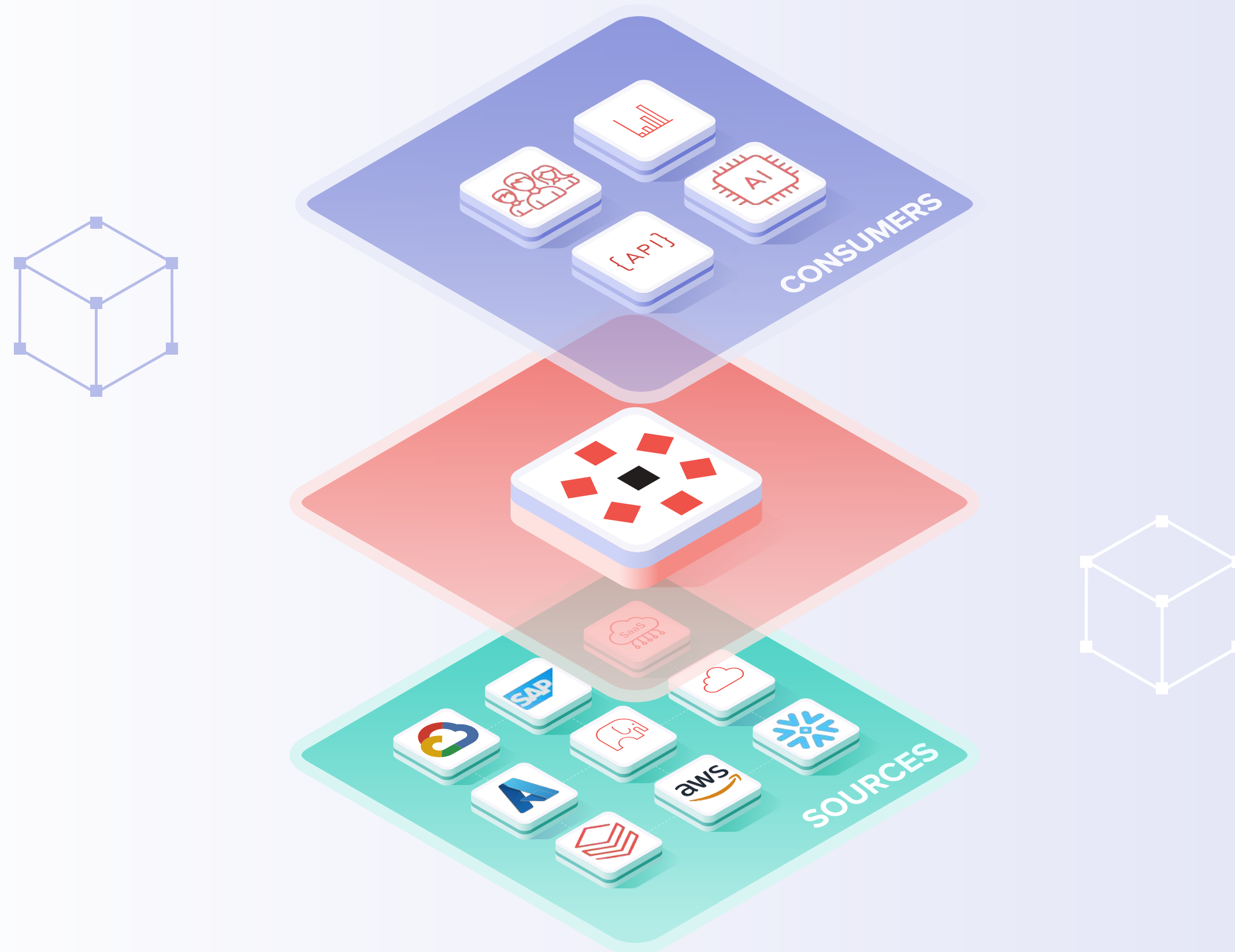


Drug discovery, and the development of new drugs, both require extensive data. To identify target drugs and pathways, life sciences organizations need to be able to analyze large datasets that include genomic, proteomic, and metabolic data. To discover, for example, new lead compounds, such organizations need to be able to screen millions of compounds against target structures. And to accelerate the identification of new therapeutic uses for approved drugs, organizations need to be able to quickly analyze extremely large datasets.





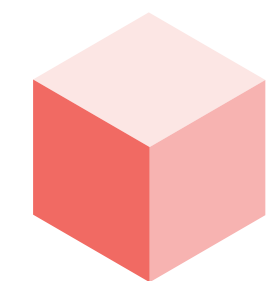
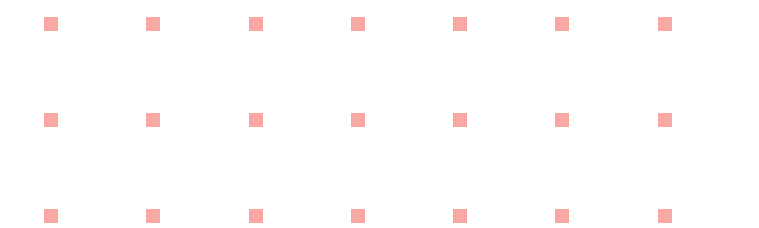
The Denodo Platform facilitates this by providing secure, governed views that draw on pharmacovigilance and other related data sources, enabling the seamless creation of myriad data products that can deliver drug development data to the right people in the right format, at the needed speed.



How Amgen Leveraged the Denodo Platform as the Foundation for Drug Discovery

Amgen, the world's largest independent biotechnology firm, sells products to treat health issues that range from rheumatoid arthritis to cancer. But in terms of data, the company lacked a single version of the truth, and this created unsustainable delays in the drug discovery process.

Amgen leveraged the Denodo Platform to gain a constant flow of real-time manufacturing data, real-time human operations data, and real-time lab data, which helped to increase the yield of its pharmaceutical production plants. With the Denodo Platform, Amgen could accelerate the launch of blockbuster drugs.



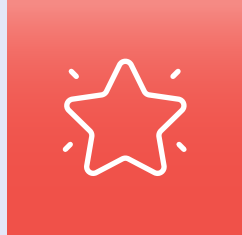
CHAPTER 5:

CLINICAL TRIAL ACCELERATION



Clinical trials are critical for innovation, so life sciences organizations need them to proceed as quickly and smoothly as possible. Unfortunately, a common roadblock to clinical trials is the need to integrate data in different formats, such as electronic health records (EHRs), genomics data, and real-world data (RWD). Often, such integrations can be complex and time-consuming, especially when they involve extract, transform, and load (ETL) processes, which need to be scripted and tested before they're deployed, and therefore need to be managed by IT.





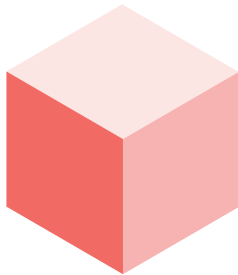
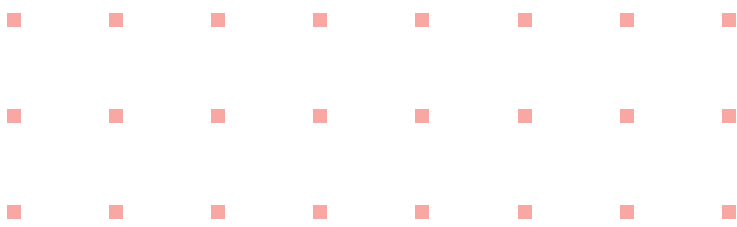
The Denodo Platform accelerates clinical trials by enabling researchers and clinicians to access up-to-date data from multiple systems in real time, and this same capability also facilitates compliance with myriad regulations that could decelerate clinical trials. Additionally, the Denodo Platform enables seamless data sharing and collaboration between researchers, regulatory teams, and external partners.



How Biogen Leveraged the Denodo Platform to Accelerate Clinical Trials

BIOGEN IDEC, founded in 1978, is a global leader in the discovery, development, manufacturing, and commercialization of innovative therapies such as multiple sclerosis (MS), lymphoma and rheumatoid arthritis. However, the company lacked a single view of physicians, which delayed the progress of clinical trials.

Biogen leveraged the Denodo Platform to enable a modernized data infrastructure. This included a dedicated master data management (MDM) system for physician data, which provided the company with the single view that it required to streamline the progression of critical trials.

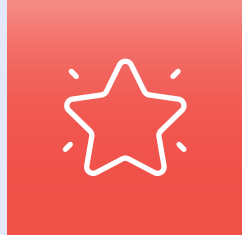


CHAPTER 6:

SUPPLY-CHAIN OPTIMIZATION

For life sciences organizations, optimizing the supply chain requires the leveraging of supply chain management (SCM) and other systems to gather and analyze a wide range of data on the logistics and distribution of raw materials, intermediates, and finished products. It also includes forecasting demand, optimizing inventory levels, and tracking product shipments, to support timely delivery while minimizing costs and supply chain risks. In turn, such activities also require secure, timely sharing of inventory data, production schedules, and distribution logistics, to authorized partners.





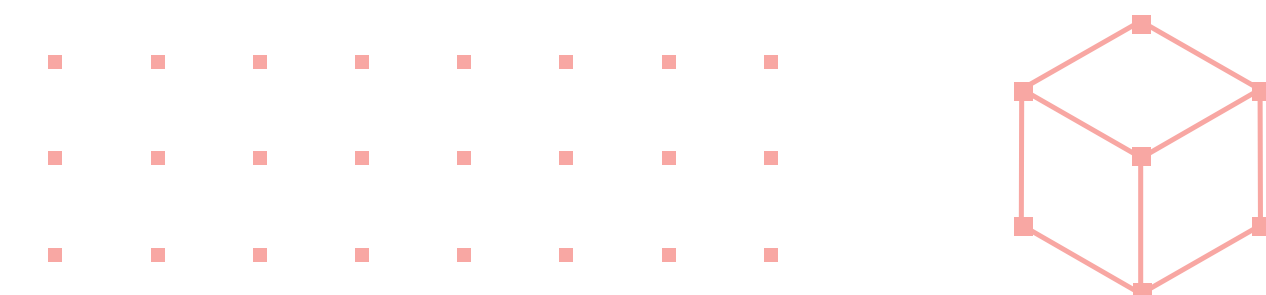
The Denodo Platform facilitates such activities by enabling life sciences organizations to instantly access and analyze supply chain data across myriad different distributed systems, without the delays caused by data silos. With the Denodo Platform, organizations can make proactive decisions based on current, accurate information, improving resource allocation while reducing risk.



How Sanofi Improved Supply-Chain Logistics with The Denodo Platform

Sanofi is a global life sciences company committed to improving access to healthcare and supporting the people it serves throughout the continuum of care. However, spurred by the supply-chain shocks of the pandemic, Sanofi wanted to engage in a holistic supply chain transformation program, underpinned by an adaptable, robust data and analytics infrastructure.

Sanofi leveraged the Denodo Platform, which simplified its data landscape while increasing the visibility of its supply-chain activities. The solution seamlessly integrated with the company's existing Supply Chain Core (SCCore) multiple-application system. With the Denodo Platform, Sanofi was able to connect the different systems in its vast data landscape to gain a holistic view of its supply chain and all associated transformation models.



CHAPTER 7:

ACCELERATING GENAI INSIGHTS WITH AI-READY DATA



GenAI is revolutionizing the life sciences by unlocking deep operational insights, optimizing workflows, and accelerating innovation. However, its success depends on high-quality, accessible, and governed data.

Denodo's logical data management approach virtualizes and unifies disparate sources in real time, delivering AI-ready data without costly, time-consuming replication. This enables faster, more efficient, and more cost-effective GenAI adoption, empowering life sciences organizations to maximize AI-driven value while maintaining agility and compliance.





Top Life Sciences companies rely on the Denodo Platform to accelerate innovation through smarter data integration and decision-making.

sanofi

Johnson&Johnson

Biogen

abbvie

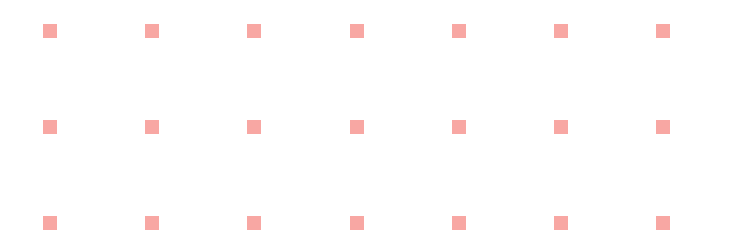
Allergan

GILEAD

Pierre Fabre

LEARN MORE ABOUT THE DENODO PLATFORM

Visit denodo.com to access hundreds of case studies and learn more about **logical data management** and the **Denodo Platform**.



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