

# Buyer's Guide for AI-powered Search within Life Sciences



## The world pharmaceutical companies are in

There's no avoiding the truth: Getting drugs to market is a long and expensive process with no guarantee of success. Deloitte estimates that the average cost of the R&D process is currently US \$2.2 billion per drug, and it's only getting more expensive. The drug discovery phase, involving the discovery of novel and innovative compounds, consumes about a third of that investment and takes 10 to 12 years. The success rate in the first phase of trials is under 10% and has not increased in a decade. To make things worse, the expected Return on Investment from drug development to clinical trials declined from 10.1% in 2018 to under 2% in 2020! You're in one of the most competitive industries on the planet. Time is of the essence. Time is money. And most importantly, time saves lives. So how do you drive innovation, accelerate research, and shorten drugs' time-to-market when the amount of information you have to sift through is growing exponentially? The key is in the data -- whether it's the tailored, self-created insights of internal data, or the broad, landscape-level insights of external data -- so you need a highly effective way to leverage both.

## That's where AI-Powered Search comes in Internal data

*Rapid delivery of safe, cost-effective medicines that cure disease or that offer life changing benefits to individuals with disease is the driving force for pharmaceutical research & development. Speed delivers economic advantage but more importantly, it's the right thing to do for people waiting for medicines that can change their lives. Access to the right data at the right time is the key to research and development moving quickly and safely. Whether it is internal or external, structured or unstructured, a web app or legacy system, comprehensive search and data management approaches are essential.*

M. Hall Gregg, Ph.D., Technology Leader and Advisor

Data is the fuel that powers a well-functioning pharmaceutical company. Data informs research and drives decision-making throughout the drug development process, whether that's during the selection of a target pathway, the confirmation of efficacy and safety through clinical trials, the delivery to market, or its ongoing monitoring. And yet, researchers are stymied when it comes to finding the precise information they need to tackle these challenges effectively.

## Why

Any data or search expert will tell you that extracting information from structured data is relatively straightforward. The internal structure that a database, spreadsheet, or online form provides makes parsing and indexing it a much easier job. Unstructured data, on the other hand, is a different story. Unstructured content holds enormous value that is largely untapped due to its formats, lengths, or storage location. In contrast to most search engines, which rely on keywords and are limited in their scope, AI-Powered Search solutions mine unstructured text regardless of the location, format or language, to ensure that you get the right information, at your fingertips and in the context of your query.

*“Our existing filtering capabilities were ineffective. Connecting structured and unstructured data via a search UI is an advancement of core capabilities.”*

Employee in Production Development

## The Hidden Depth of External Data

*“Content and data in the biopharmaceutical industry are complex and growing at an exponential rate. Terabytes from research and development, lab reports and patients reside in sources such as databases, emails, scientific publications and medical records. Information in emails, videos, recorded patient interviews, and social media could be critical to research but is often neglected.”*

Laurent Fanichet, Vice President of Marketing - Sinequa

The volume of external information is a challenge unto itself. It is estimated that over 3 million research papers are published each year in over 33,000 journals. If you only read the summary of each paper, it would take the average person 85 years to cover everything published each year, and the volume only continues to grow! The ability to centralize and manage this unstructured data long-term is more challenging -- and important -- than ever before.

Your teams not only need to find the right content, but they also need to understand its context: who created it? When was it last updated? Is there something more recent? The current ability to find information often depends on how companies govern their data and how it is tagged. Unfortunately, most content is not tagged correctly or systematically (if at all!) and important information goes unnoticed.

## Find the insights hiding in your data with AI-Powered Search & GenAI Assistants

Sinequa grants any large pharmaceutical company unified access to all information, regardless of source or system.

- Bridge content silos and systems with 200+ pre built connectors .
- Use advanced Natural Language Processing to make sense of information stored in multiple languages

### A great employee search experience

- Create search-based insight applications, customized for your employees' role
- Outstanding relevance, with the most accurate results
- A system with a pre-trained industry vocabulary thanks to our partners at Scibite

### A frictionless process

- No more duplicated or overlapping work
- Re-use of company knowledge

### A great TCO

- Sinequa works with your legacy systems for a non-disruptive deployment that offers day 1 value
- A quick deployment and a single repository of organizational intelligence and company knowledge



## Don't take our word for it!

### A \$7B /Year BioTech Company Reduces Time to Market for Drug Development

This company's impressive product portfolio improves the lives of people suffering from rare and serious diseases through the development of therapeutics that treat conditions such as immune and neurological disorders, bleeding disorders, hereditary angioedema, and inherited respiratory disease. It has been a leader in biotherapeutics research and development for more than a century.

#### Challenge



The company deployed Sinequa's AI-Powered Search Platform to index and contextualize their data, make it fully searchable, then use it to power a number of search-based applications. Each application focused on data analytics in specific areas to improve decision-making and shorten the drug development lifecycle.

#### Solution



Finance, accounting, and human resources are other key departments that need to be unified. A dedicated SBA provides complete and consolidated access to information from the disparate ERP systems.

#### Return of Investment



The result was a 9 to 10-fold increase in the findability and accuracy of information, and a bunch of very happy employees. As a result of faster and more efficient processes, they anticipate accelerated drug development leading to an increase of at least \$340,000 in revenue per day - a potential \$102 million per year.

***We compared it to the Microsoft Engine, and it was 9 to 10 times more effective and accurate. We had 24 people evaluate and search on very specific terms. We didn't do any fine tuning, and it was already that much better.***

Director of Enterprise Business Applications



## The Story of a Pharmaceutical Company Lost in the Information Maze

Science-driven and research focused, this world-renowned biopharmaceutical company's products are used to treat some of the most challenging healthcare problems such as cancer and cardiovascular, metabolic, respiratory, inflammatory, and autoimmune diseases.

### Challenge



With 60,000 workers, 6,000 systems and decades of R&D work behind it, the company faces the same problem that besets all large pharmaceutical companies: a hundred million files containing critical information are scattered across the world in thousands of repositories. This content chaos made it difficult to locate important information stored in disparate systems and **turn that research into useful, easily understandable insights.**

### Solution



The company implemented the Sinequa platform to make the lives of their employees easier. By creating AI-Powered Search applications tailored to meet specific information needs, employees can suddenly receive insights from hundreds of millions of documents. The result? More informed employees, more efficient processes, and faster drug development.

## Life Sciences Work Needs Sinequa

World-class organizations know Sinequa's AI-powered search and GenAI Assistants by the many roles it fulfills: it's a teacher, an innovator, a historian, a reporter, and a storyteller. But it's also known by another title where analysts like Gartner and Forrester are concerned: Leader.

Sinequa helps life science organizations put their wealth of data to work by unlocking the potential of their buried information. With its availability either on-premise or as a SaaS offering, and its library of over 200 native data connectors, Sinequa's machine learning allows life sciences to solve complicated problems like:

- Facilitating clinical trial design and patient recruitment for centralized or decentralized studies
- Quicker, safer exploration of novel therapeutics (like mRNA vaccines, cell & gene therapies at scale, etc.)
- Building regulatory compliance databases to avoid costly delays
- Ensuring that research and innovations are indexed and discoverable to increase speed to market
- Faster sourcing for supply chain and manufacturing concerns ...and much more.

## Companies that use Sinequa



## About Sinequa

Sinequa transforms how work gets done. Sinequa's Assistants augment your company by augmenting employees with a knowledgeable, accurate, secure work partner so they are more effective, more informed, more productive, and less stressed. Best of all, Sinequa Assistants streamline workflows and automatically navigate the chaotic enterprise information landscape, so that employees can skip the grind and focus on doing the kind of work that makes the most impact. Sinequa's Assistants achieve this by combining the power of comprehensive enterprise search with the ease of generative AI in a configurable and easily managed Assistant framework, for an accurate, traceable, and fully secure conversational experience. Deploy an out-of-the-box Assistant or configure a tailored experience and specialized workflow to augment your people and your company. For more information, visit [www.sinequa.com](http://www.sinequa.com).

Watch a demo

