

BECOME INFORMATION-DRIVEN

# AN INFORMATION-DRIVEN BLUEPRINT TO SMARTER MANUFACTURING



Recent trends show the manufacturing industry on track for continued growth at a solid pace, and in the process becoming more complicated. As knowledge workers in this space strive to keep up with demands, they must navigate content and data from a multitude of sources such as customer preferences, online orders, pricing, inventories, employee resources and changes in the global supply chain.

For these critical stakeholders, the extra thought and effort to evaluate all the available options imposes an enormous cognitive burden.

Information-driven organizations, however, can see through this murky fog of data to harvest new insights and keep ahead of their competition, avoiding mistakes that might put their customers and brand in jeopardy.

## **Cognitive burdens overwhelm knowledge workers**

Many manufacturing organizations are experiencing a cognitive burden in aggregate that far exceeds the number of knowledge workers assigned to mission-critical work. To avoid falling behind, they must become information-driven and alleviate the cognitive burden for their workers and capitalize on information and insights from a multitude of dispersed sources.

According to Forrester, “Relevant knowledge at the right time is priceless in the enterprise.” But for many enterprises, “relevant knowledge” is hidden in a deluge of all kinds of data both structured and unstructured. This tsunami of data is becoming more diverse as it surrounds global teams from different timelines, cultures and regulations.

On the front end, IoT data is constantly streaming over sensors and smart meters from a distributed environment of suppliers, couriers and outsourced manufacturers. On the back end, data on power stations, factories, satellites or aircraft is maintained for years to meet regulatory retention requirements. Some of this data is as old as the applications and the people who produced it.

With so much data from so many data sources, critical stakeholders within companies are subjected to a cognitive burden from content overload, obscuring the most relevant and useful information needed to achieve their goals.

## **Glean insights from a world of distributed manufacturing**

Sinequa enables organizations to rise above this flood of data from all sources with an information-driven approach that alleviates the cognitive burden and clears the path for new revenue sources, improved service levels and the ability to identify and respond to risks and opportunities faster than ever.

Cognitive search and powerful analytics cope with both structured and unstructured data such as technical product details, customer information, contracts and regulations. By teaming with Sinequa, knowledge-intensive organizations can give their employees the tools and insights to leverage relevant content and data intelligently and securely across the entire enterprise.

Manufacturers around the world are working with Sinequa to improve product quality and prevent product recalls or returns. They’re keeping manufacturing moving at a brisk pace by improving the way they track parts and materials, and more accurately forecasting product demand. And in the process, they’re creating better products and services that keep customers happy and loyal.

Sinequa helps organizations surface information and insights to meet new and evolving regulatory requirements like GDPR, PCI and SOX. And it’s improving research and development by extracting relevant information from scientific or trade journals, patent filings, reports and regulations. Customers who have adopted this approach are accelerating development and manufacturing of new products with higher quality and lower costs.



## Natural Language Processing to Understand any Data

Sinequa's Natural Language Processing (NLP) capabilities help manufacturers make informed decisions with critical insights from unstructured data. And it connects global manufacturing processes, teams and supply chains through deep analysis of content and user behavior. With Sinequa's NLP capabilities, manufacturing IT professionals can leverage unstructured data from social media postings, emails, videos and audio files to understand both the search query and the content, which is critical to search relevance and knowledge discovery.

## Machine Learning for the Citizen Data Scientist

Machine learning is drastically changing the way data and content is managed and analyzed. With Sinequa, manufacturers can provide advisory services and support, and bring useful automation to decision-making across the enterprise. Sinequa has spent years making machine learning approachable for the citizen data scientist with advancements like a drag and drop machine learning lab. Sinequa's approach to machine learning enables manufacturers to achieve insights never before attainable from rules-based approaches, and do it on an enterprise scale.

## Support for Information-Driven Applications and Indexes

Finding the right piece of technology in a large company, and within its ecosystem of partners and suppliers, is complicated and sometimes impossible. The Sinequa platform helps manufacturers discover components or whole subsystems to reuse in new products or installations. As a result, manufacturers are reducing development costs, going to market faster and improving their product quality and reliability.

## 360-Degree Views

Complex products, like aircraft, ships, gas turbines or complete power stations require regular and thorough maintenance with strict procedures. Sinequa provides 360-degree views that improve engineering maintenance and support by quickly locating current procedures, instructions, component designs and maintenance histories that span decades. As a result, employees can benefit from legacy expertise without having to plow through decades of documents and data.

## Key capabilities and features of the Sinequa platform include:

- **A logical data warehouse** to structure, categorize and enrich data that is ideal for information driven-applications.
- **Extreme scalability, high performance and deep analytics** to cope with high volumes of structured and unstructured data – while maintaining deep analytical capacities.
- **Support for multiple index approach** to combine multiple indexes that offer different perspectives or emphasis, including a full-text index, structured index and semantic index.
- **Strong security controls** designed to support the complexities and multiple security layers of today's enterprises.
- **Contextual enrichment** to learn any vernacular and help automated its interpretation within the context of an industry and specific organization.
- **Relevance feedback** based on information captured about end users interacting with the system. With this approach, the quality of information returned improves as the system learns what documents are most used and as users indicate the value of content available in the system.

- **Intuitive presentation provides** an aesthetically pleasing and understandable user design that aligns with the user's goals.

## Trusted and built on years of success and industry recognition

Sinequa's expertise and innovation have been forged by years of experience with some of the world's largest projects within Global Fortune 2000 companies. Over the years, Sinequa's approach to information-driven business has helped many leading manufacturers like Airbus Group, Alstom, Siemens and Volkswagen.

For example, Sinequa is providing more than 700 Airbus Group scientists located around the world with a single, secure point of access to all structured applications, unstructured information and people data. With Sinequa's real-time collaboration capabilities, Airbus Group is fostering an environment of cooperative teamwork and healthy competition.

Sinequa, a recognized leader in the Gartner Magic Quadrant for Insight Engines 2018 and Forrester Wave for Cognitive Search and Knowledge Discovery 2017, continues to receive positive recognition from its customers, analysts and the press for its role in powering information-driven organizations that drive value for their customers.

## About Sinequa

Sinequa is an independent software vendor providing a cognitive search and analytics platform for Global 2000 companies and government agencies that connect people with the information, expertise and insights necessary for organizations to become information-driven. For Sinequa customers, this means actionable information presented in context to surface insights, inform decisions, and elevate productivity. The platform has been forged by experience in projects for large organizations in complex environments with large and diverse sets of data and content. Sinequa's unified platform is fully integrated and configurable to support current and future needs around becoming information-driven.

Sinequa develops its expertise and its business around the world with a broad network of technology and business partners. For more information, visit [www.sinequa.com](http://www.sinequa.com).



### Paris

12, rue d'Athènes  
75009 Paris

### London

20 Fitzroy Square  
London W1T 6EJ

### Frankfurt

Walter-Kolb-Str. 9-11  
60594 Frankfurt/Main

### New York

245 Fifth Avenue  
New York 10016

### San Francisco

555 California Street  
San Francisco, CA



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