

Knowledge Discovery

Goldfire Cognitive Search

INTRODUCTION

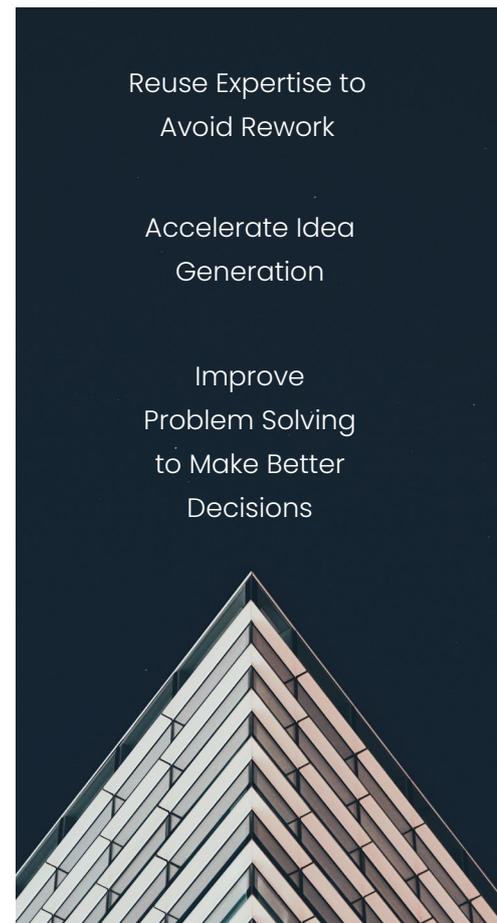
The Goldfire solution enables engineering and knowledge workers to leverage critical knowledge assets for precise application. *Goldfire finds answers to questions that are not only directly queried by users but also provides relevant tangential information to add context to the search.*

Knowledge is rarely sought in a vacuum. Answers, when needed, are often associated with questions that are part of a task, process or similar value-stream. The need to know answer is always tied to a role and goal that has real, measurable value. In today's fast-paced work-environments that demand push-button answers, the concept of an answer's value in solving a business problem is often overshadowed by common instincts and expectations of information technology. Today there are at least three generations of knowledge workers that approach knowledge retrieval with little more than "search engine thinking" – the false notion that a mere search for documents (instead of answers) is the pinnacle of discovery, which misses a significant opportunity.

We've heard from the field:

Meeting the demands of the business is critical to our success. Businesses need to:

- Grow Revenue
- Innovate Faster
- Speed Time-to-Market
- Manage Costs
- Improve Quality
- Mitigate Risks



BUT WE KNOW THAT:



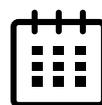
The average recall costs a company between

\$2-35 million



30%

of total R&D spend is wasted duplicating research and previously performed work



On average, new product development projects are

120%

over-due schedule



60%

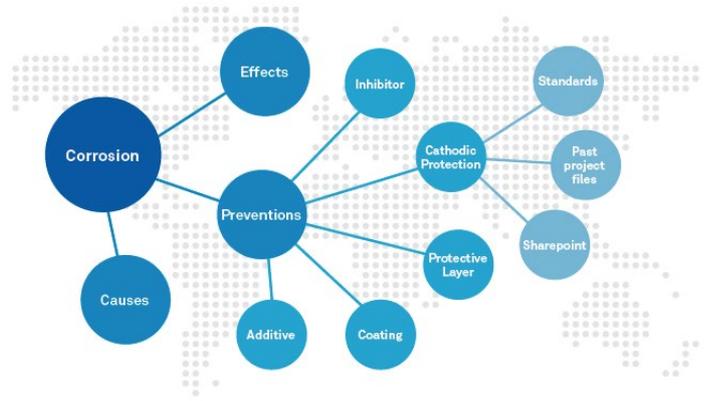
of engineering projects fail



Goldfire can help.

Goldfire solves engineering and knowledge challenges across multiple divisions and use cases. Our most successful clients leverage it to:

- Research past bids and proposals
- Understanding of regulations and compliance
- Problem solving research and resolution
- Research lessons learned
- Leverage proven practices in test & assembly
- Root cause analysis
- Optimize design for cost, quality, functionality–
- Research past projects
- Learning/On-boarding



- Researching Global Patent Databases
- Research technology trends and analyze markets
- Cost reduction analysis
- Leverage and reuse past test analysis results
- Leverage emerging technologies in manufacturing
- Capture & reuse learnings & experience
- Researching material properties
- Knowledge Capture & Transfer

GOLDFIRE INTEGRATIONS

Goldfire connects to an expansive amount of systems today and with our API's & custom connectors you can virtually connect to any data source you may have. With integrations to your business systems like **Network Storage, Microsoft Office 365, Oracle Agile, Salesforce, PTC Windchill** and many more, Goldfire will accelerate and refine many of your data research and management challenges that are slowing down your business today.

Goldfire is unmatched in its ability to provide a single search experience by unifying all content and all formats (over 400 file types) across all sources into a single platform.

Power any unique portals and other systems with Goldfire's Search API

Create custom applications to meet your specific search requirements with Goldfire's application programming interface (API). Goldfire's web services API extends access to Goldfire's world class knowledge discovery capabilities to an interface of your choosing.

The Goldfire API allows an application to programmatically find answers from diverse internal and external content – turning a simple search into something actionable.

By harnessing Goldfire's AI & semantic search engine, you can access a broad range of natural language and keyword search functionalities to tune specific relevant answers including category, answer, and citation searching, cross-language and results translation, synonyms, expert search, scheduled queries, and knowledge base selection.



Top features in Goldfire:

- **Cognitive research inside of documents – Virtual Research Assistant**
 - Leverage our extensive Natural Language Processing and Machine Learning capabilities
 - Goldfire delivers AI-generated abstracts from every piece of knowledge it has indexed. This greatly reduces the time and effort required to find the exact document or answer you are looking for.
- **Pre-trained technical AI engine (~250M documents)**
 - We are the global leader in technical information access and leverage this to deliver best in class products with superior capabilities for technical research solutions. Goldfire has been trained on our extensive gathering of knowledge prior to indexing any of yours. This enhances the searching capabilities for Goldfire on your data.
- **Connects to internal & external data sources**
 - We deliver access to our hosted content including Global Engineering Standards, Technical Publications, and World Patent Databases side by side with your internal knowledge sources.
 - Goldfire will connect to any system you have, and many are included as out of the box connectors.
 - Windchill, MS O365, Network Shares, SharePoint, etc.
- **Find answers to questions not just keyword list**
 - Our Symantec Search Algorithms read and understand your documents just like the subject matter expert who published them. You will be able to ask questions as queries and not be forced to rely on keyword metadata that may not even be present on a document.
- **Multilingual natural language processing algorithms**
 - Goldfire is actively reading information in six languages.
 - English, German, French, Chinese, Japanese, Russian

Ability to extract metadata that does not exist in documents from the content

- Goldfire reads your documents and extracts relevant information to leverage as filters even when this information has not been tagged to the document, thus enhancing the information you have access to perform research on.

Connects to OCR tools to leverage legacy data forms

- Goldfire connects to OCR solutions to capture your legacy information and turn it into searchable knowledge that otherwise might be lost forever.

Filters and lenses for data refinement in the user interface

- Goldfire uses your search query to group information and deliver to you in several filtered sections as well as our unique lenses that take those filtered groups and separate them even more specifically, so the end user spends less time manually breaking down information afterwards.

Connected to global patent & standards databases

- Goldfire delivers access to our hosted content including Global Engineering Standards, Technical Publications, and World Patent Databases side by side with your internal knowledge sources.
- Goldfire can be leveraged to perform RCCA modeling and help you to leverage many of your past lessons learned on any project.
- The RCA models can be searched after creation and leveraged against new problems to help your quality and product teams in the reduction of errors and the improvement in the design of products by not re-creating old issues into new products.



Goldfire in Engineering & Manufacturing

INCREASE IN PRODUCTIVITY

Oil & Gas

A major oil and gas company was facing many challenges to quickly find, validate and extract relevant information from their internal knowledge assets used to resolve issues, support projects, operations and business decisions. In addition to their own vast internal information, they also rely on over 134 million external documents and other content provided by Accuris. Goldfire provided a single consolidated intelligent research platform that marries vetted external content with critical internal data and IP.

With the Goldfire deployment, the organization has seen new value in various areas:

- **Center of Excellence;** problem solving, incident resolution, preventive solutions
- **Legal;** supporting processes related to contracts and liability
- **Petro-chemicals;** leveraging IP into new products and new markets (catalyst systems)
- **Facilities Engineering;** Identifying subject matter experts
- **Research & Exploration;** Preventing duplication of effort and rework
- **New Ventures;** geology, reservoirs, risks, regulations, new opportunities
- **Requirements Definition & Management;** Finding duplicates, concept detection and more

RECALL REDUCTION

Automotive Manufacturing

An average car recall costs €600k - €850k per day and takes 180 - 240 days to complete. To reduce recall costs, this manufacturer's objective was to lower the number of days spent analyzing the issue to find and implement a solution.

- The manufacturer realized that their first phase of any recall, analysis, was taking them 60 days on average to complete.
- Analysis was extremely difficult for their engineers, as they searched for root cause across many siloed locations manually.
- This meant determining if this is a new or past issue and truly understanding root cause analysis was almost impossible.

With Goldfire, the manufacturer saves €240 million and 400 days of work per year.

Goldfire reduced the engineers' analysis time by 70% - saving the company an average of 40 days per recall, and €24 million per recall issue.

- The manufacturer resolves over 10 recalls per year, so the company is saving over €240 million and 400 days of work annually using Goldfire.

