



ELSEVIER

OIL AND GAS

**Knovel**<sup>®</sup>

For the Oil & Gas Industry, staying competitive in a challenging economic environment means meeting global demand for natural resources while remaining robust to price volatility, and decreasing or uncertain margins.

**Knovel** delivers trusted, accessible and relevant engineering answers and insights to address challenges, bottlenecks and inefficiencies in the Oil & Gas Industry, ensuring business continuity through operational excellence.



ELSEVIER



**“Knovel helped me research new technology that I was not familiar with; I was able to research and become more knowledgeable in the topic”**

—Production Engineer, Nexen Inc.



### **UPSTREAM** **Exploration & Production**

- Minimize drilling time and environmental footprint
- Mitigate preventable downtime, interventions and workovers
- Reign in costs and use operational resources efficiently
- Maximize total recoverable volumes of oil and gas resources
- Ensure HSE requirements are met with clear view of changes, risks, impact and cost



### **MIDSTREAM** **Transportation & Storage**

- Cost-effective pipeline construction and maintenance
- Minimize HSE impact of pipelines and storage facilities
- Extend life cycle of piping, tanks and facilities equipment
- Anticipate and plan maintenance and equipment updates to avoid bottlenecks



### **DOWNSTREAM** **Refining & Petrochemicals**

- Identify best technologies and methods to optimize processes
- Produce long-term competitive feedstocks
- Maintain operations safe and environmentally benign
- Build on existing infrastructure to improve and upgrade operations
- Develop new products and novel IP with feasible scaleup and HSE-compliant processes

**“I used instrument selection and sizing guidance books to properly size and calculate all parameters of measuring equipment and valves, which decreased cost of my project and was a good validation method to validate vendor’s calculation”**

—Instrumentation & Control Engineer, BP

Over 65 Million interactive and searchable data points spread over 40 engineering subject areas PLUS Material databases covering everything from mechanical to chemical properties data, corrosion data and material properties



Faster path to results by highlighting and suggesting a focused set of concepts, letting users narrow down from large, unfiltered Search Results



The *My Knovel ToGo* app grants mobile access to results, extending the reach of Knovel beyond the office, reducing project delays





“Past knowledge gained from [Knovel] helped to spot potential for increased production through choke optimization. Execution of the approved plan yielded 100% oil production from the well.”

—Production Manager, Chevron Corp.

## Upstream Exploration & Production



Reduced  
consultant fees



Informed well construction  
and maintenance



Streamlined process  
control & automation

### Reduce engineering risk

“Used some publications to better assess existing facilities against seismic risk and minimize mitigation works.”

—Mechanical Engineer

### Cut design & development costs

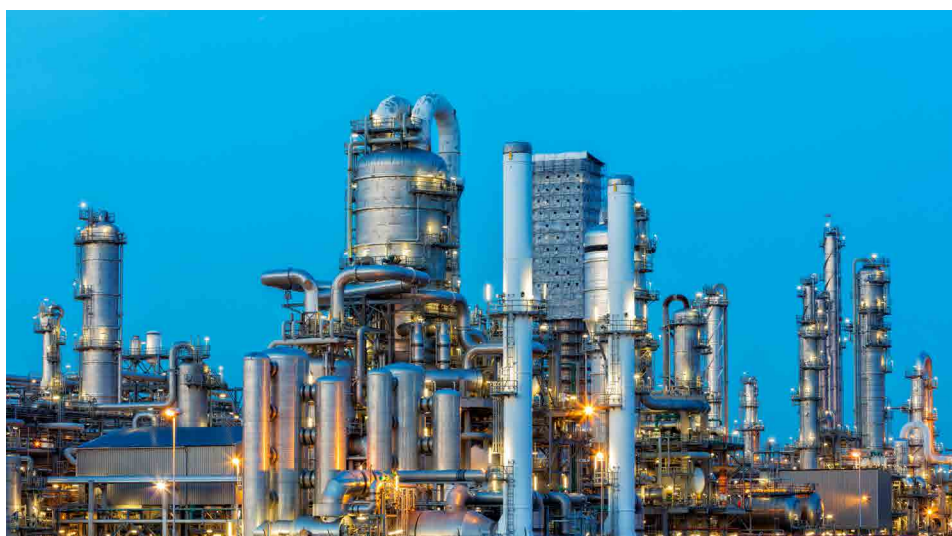
“I used [Knovel] to properly size and calculate all parameters of measuring equipment and valves, which decreased cost of my project and was a good method to validate vendor calculations.”

—Instrumentation & Control Engineer

“[Knovel] helped me to find numerous ways of saving plant utilities such as steam and in some cases reduce power consumption in the process plant.”

—Production Engineer

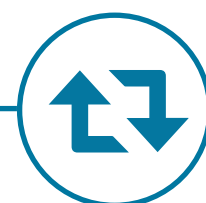
## Downstream Refining & Petrochemical Operations



Problem-solving based  
on industry data  
& insights



Assessment &  
management of  
EHS issues



Continuous process  
improvement

### Build new knowledge

“Currently I am doing research about enhanced oil recovery and Knovel has been a great sources of knowledge.”

—Production Engineer

### Tackle problems fully informed

“I use Knovel references in my engineering and design work. These include process, process control and safety works.»

—Service engineer

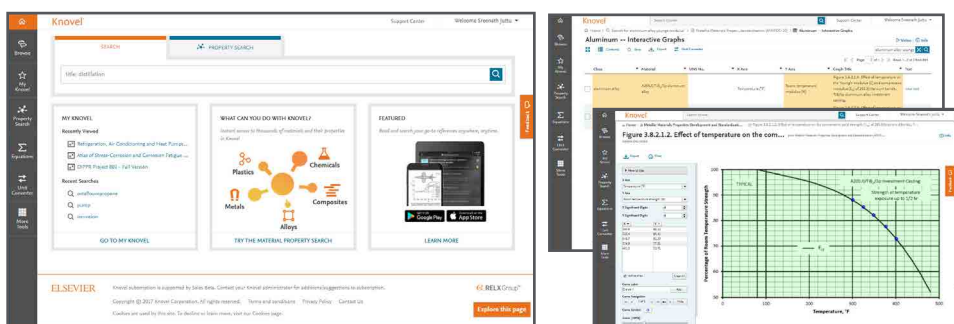
“Knovel provides important reference of health, safety and environment applicable in our industry. We are able to identify issues that must be managed to achieve safe and incident free operation.”

—Rotating Equipment Engineer, Chevron Corp.

## How Knovel delivers

**Essential answers:** relevant, tailored content throughout the search journey

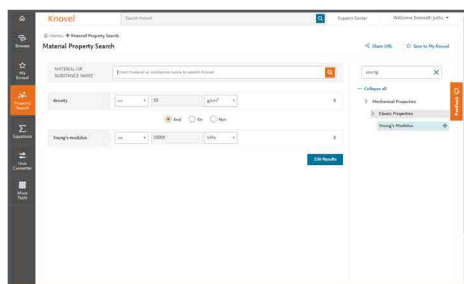
The rich content of Knovel is accessible through streamlined workflows. The user interface gives immediate and persistent access to powerful Knovel search capabilities and productivity tools, including user activity tracking, annotations embedded directly in resources, and dynamic content to test and validate ideas.



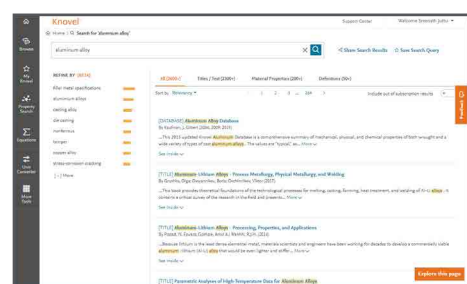
**Figure 1.** User-defined searches or viewed content, as well as tools like interactive graphs and a unit converter, are just a click away.

## Accelerated discoveries: powerful search and processing capabilities

A user interface designed for engineers makes discovering insights quick and easy. The drag-and-drop query builder of Knovel’s Property Search accepts various inputs and helps target queries. The “Refine by” tool extracts engineering concepts from search results to narrow down answers, declutter results, and discover connected content.



**Figure 2.** The powerful but intuitive query builder of Knovel’s Property Search.



**Figure 3.** The unique “Refine by” tool highlights engineering concepts to quickly get relevant answers.



## How Knovel delivers

### Continuous access: using Knovel content when and where needed

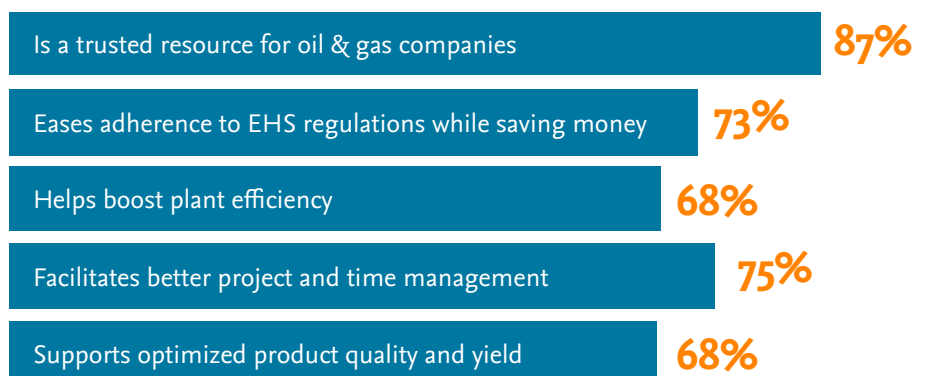
Knovel is designed for using information. Thus, plug-ins enable content interoperability with essential engineering tools and software, like AutoCAD, Inventor and Excel. Furthermore, *Knovel ToGo* grants mobile access to results, extending the reach of insights beyond the office and eliminating project delays.



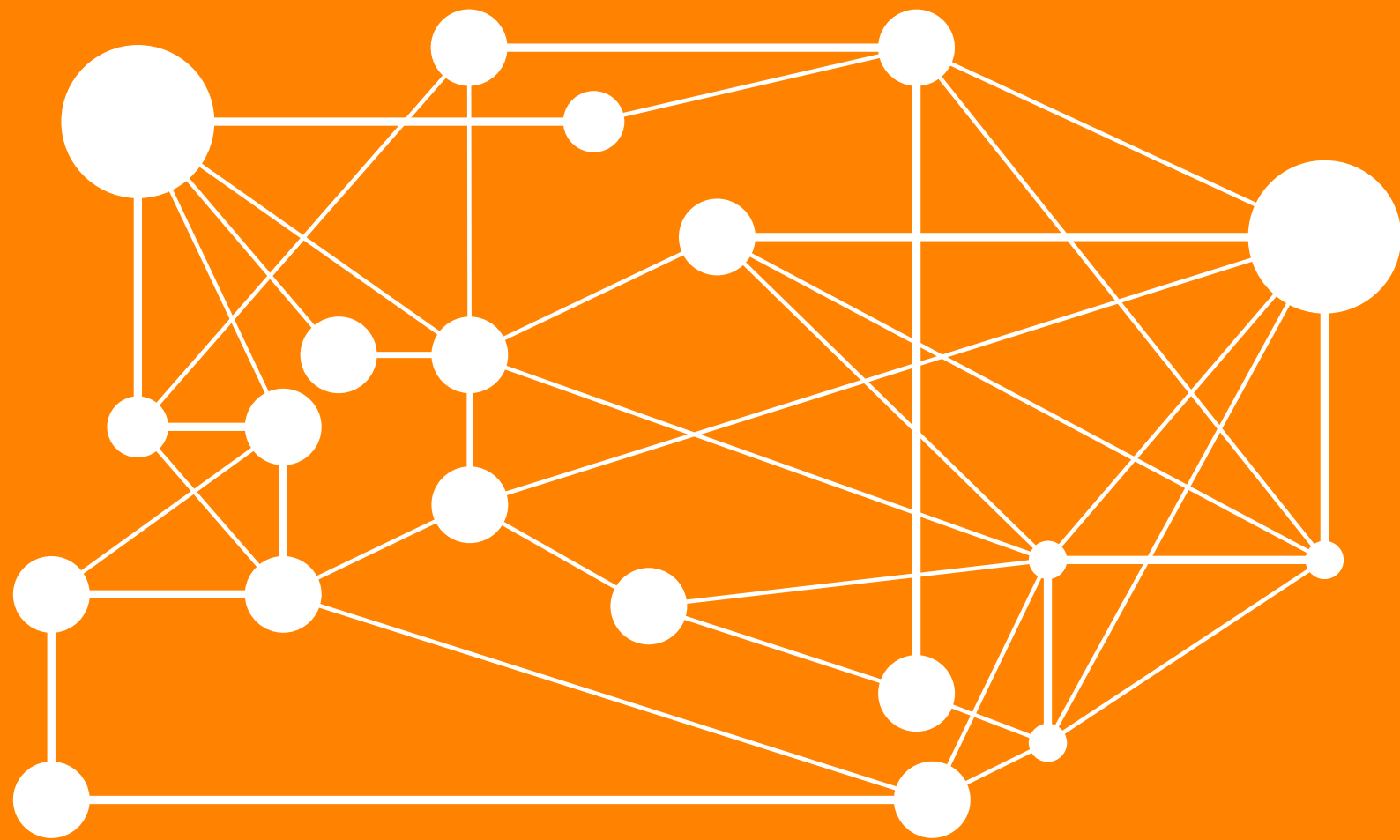
**Figure 4.** The MyKnovelToGo app for Tablets & Smartphones is available on iOS (App Store) and Android (Play Store).

### Users agree: Knovel advances their engineering work, providing answers and insights with high business impact

Knovel



Source: 2017 Knovel User Survey



## KNOVEL

Knovel is an engineering decision-support solution enabling engineers to solve problems faster. With powerful search and interactive analytical tools, engineers can confidently find answers to technical questions through best practice insights, validated equations and materials and substances data from more than 140+ providers. For more than 15 years, Knovel has helped thousands of engineers and researchers from leading companies and institutions around the world enhance research and productivity, achieve operational excellence, reduce costs and time to market and build expertise.

## Learn More

To request information or a product demonstration, please contact us at [elsevier.com/knovel/contact-sales](https://elsevier.com/knovel/contact-sales).

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