opentext™

3 steps to AI operational excellence

A guide to safer, more efficient asset operations

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Resolving asset documentation challenges

Asset information management challenges in the global energy and resources sector hinder opportunities for seamless and safer operations. Overcoming hurdles, such as siloed data, collaboration barriers, and difficulty finding critical information, demands a holistic approach. Utilities, oil and gas, chemicals, metals and mining, and other asset intensive organizations must focus on integration, accessibility, and data accuracy.

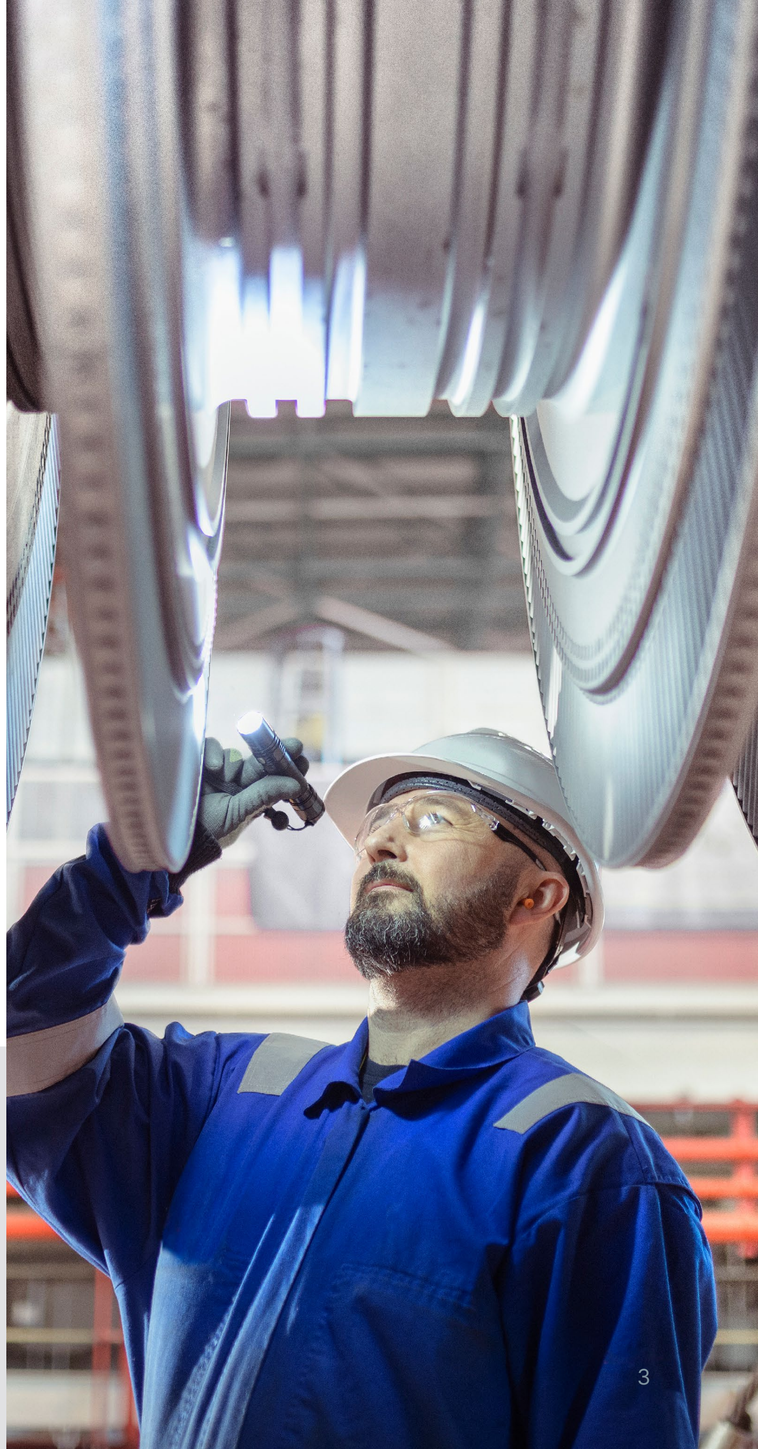
Asset operations generate and manage vast amounts of unstructured documentation and other asset information. Key asset operation and maintenance documents can include P&IDs, manuals, datasheets, contracts, safety forms, checklists and asset surveillance images. Access to accurate and up-to-date documentation is vital to improving operational efficiency, especially during critical incidents.

With engineering and asset documents scattered across systems, how can asset intensive companies work smarter? Combined with the right information management tools, AI can streamline asset operations and even reduce unplanned shutdowns while mitigating safety risks.

As companies across the energy and resources sector navigate escalating demands, AI is a strategic tool for achieving operational excellence. This guide explores three steps to achieve operational excellence through AI-powered asset information management.

“Early in the project, we prepared a study that showed in some cases an employee could spend between 50% and 80% of their time trying to piece together the right information for their job. With OpenText, they will regain that time for more productive and valuable work rather than trawling through archives.”

Ted Tomes, Director of Spatial Data and Document Control, Western Midstream



#1 Enrich and migrate asset documentation for safer operations

To get started, companies should create a trusted, single source of truth for asset documentation by enriching content and migrating asset information.

Energy and resource companies are under intense pressure to deliver more reliable and sustainable energy and other essential resources without compromising the health of their employees, the safety of the

“Bringing millions of documents into a digital repository was a massive project, but the results have been outstanding. By using optical character recognition [OCR] from [OpenText Capture], we extracted information from our records with a high level of accuracy. As a result, teams can use OpenText Content Management to search for keywords that appear anywhere in our documents and instantly surface the information they need.”

Spokesperson, Utility

communities they serve, or the environment in which they operate. To do so, they must incorporate information management best practices and technology into daily operations.

Improving accessibility and usability of critical asset information is a strong first step toward smarter asset information management.

Content enrichment is an automated process that identifies and categorizes content types. It extracts relevant metadata and enhances asset documentation with tags, ensuring users locate needed information promptly. This supports better risk mitigation and prepares staff to respond effectively during critical events such as unplanned outages.

Migrating asset information to advanced content management platforms allows energy companies to seamlessly transition from traditional, siloed information storage to a private, centralized, governed, and integrated system.

Enriched asset documentation on a modern content management platform enables seamless information governance, which is critical for avoiding incidents and safer operations.

Content enrichment in 3 simple tasks

Task 1. Automate identification of content types

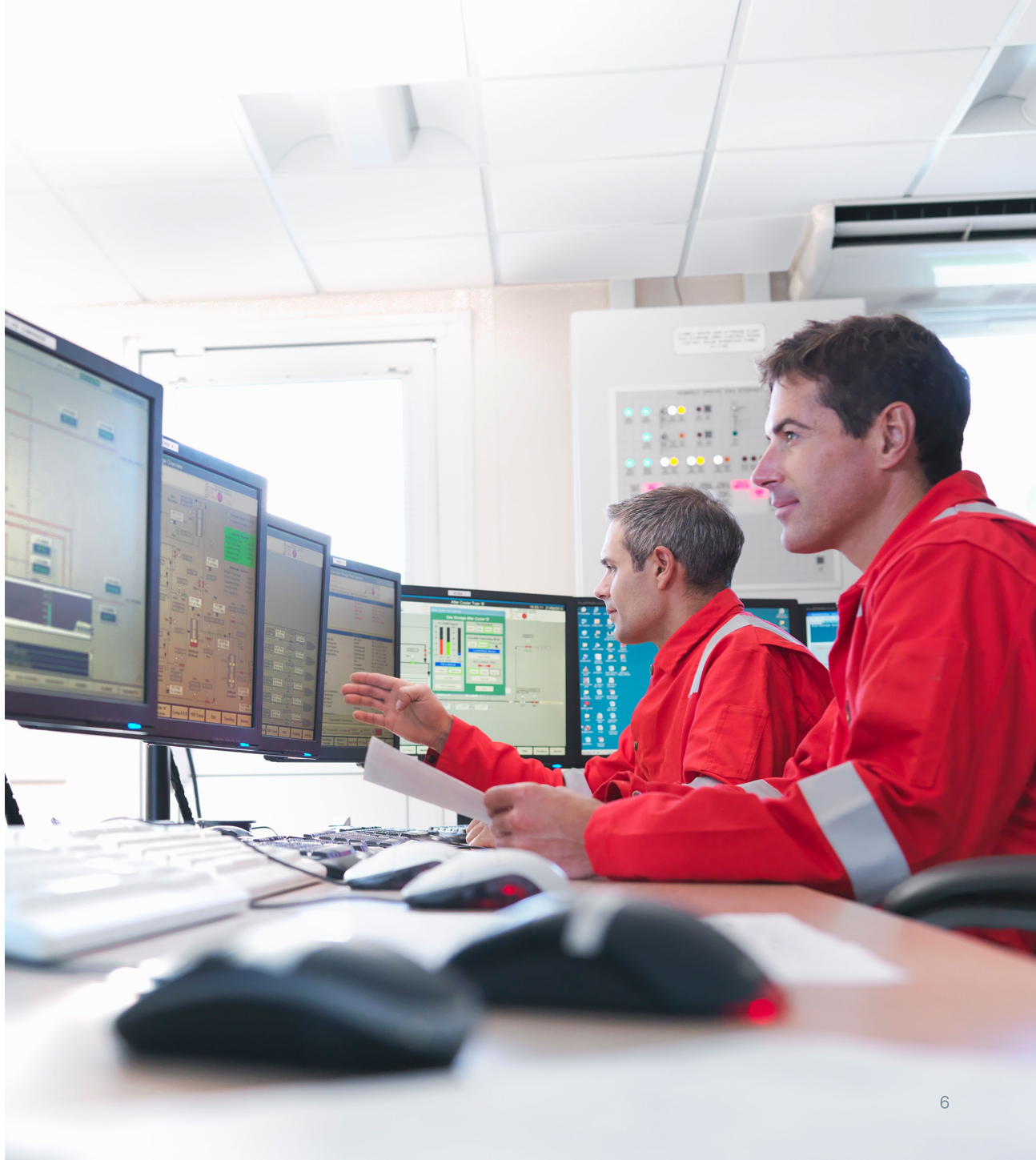
AI-powered automation tools automatically identify diverse asset documentation types to ensure accurate and efficient categorization.

Task 2. Extract relevant metadata

Metadata provides additional details, such as creation date, author, version, and other contextual information. Extracting this metadata enriches the asset documentation so operations, maintenance, engineering, and other staff have a more complete digital twin of their assets.

Task 3. Improve search and retrieval

Extracted metadata is integrated into asset documentation through tags, creating a structured system. This enhances search and retrieval, giving staff faster access.

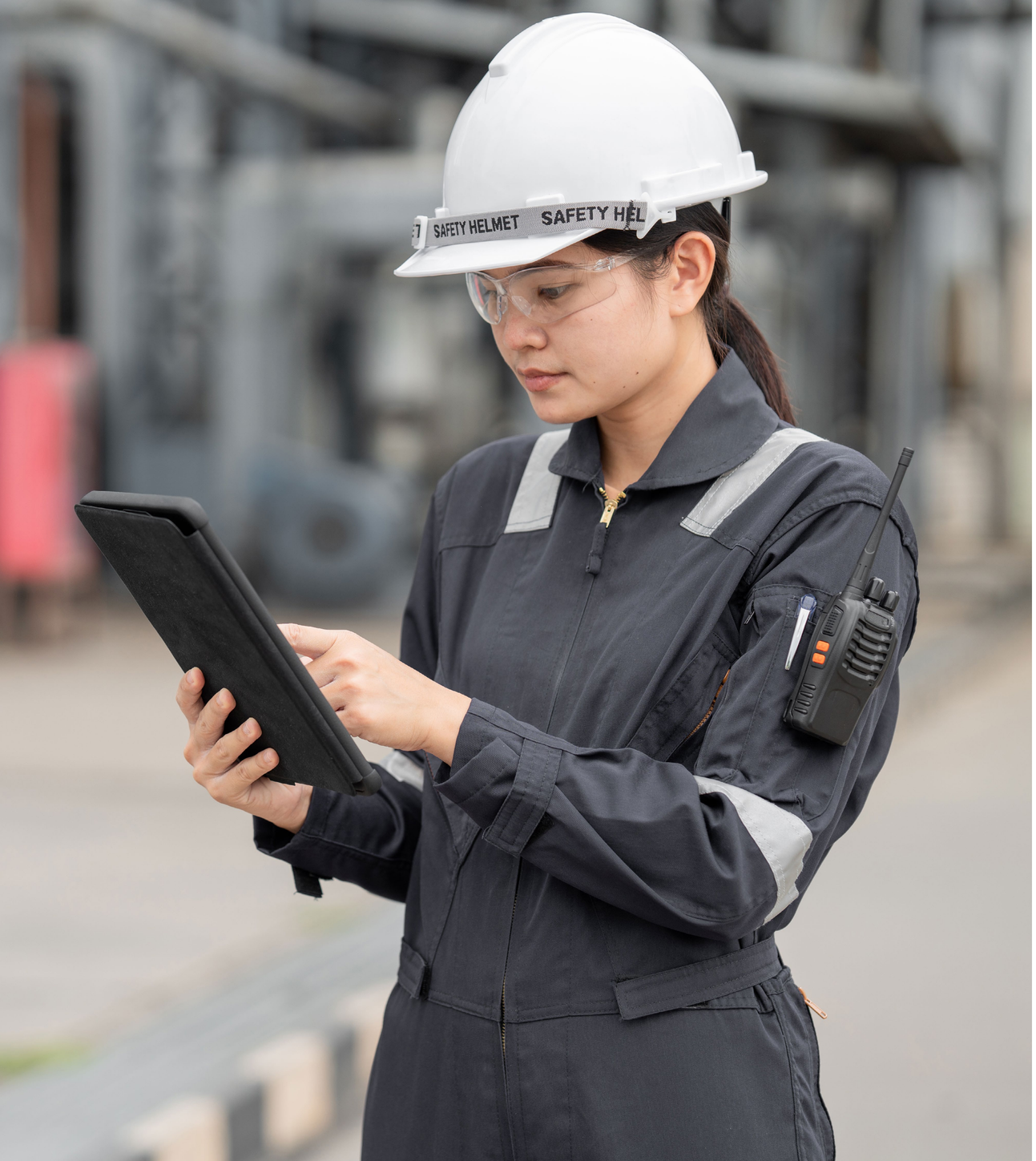


#2 Optimize operations with generative AI

Generative AI (GenAI) and large language models (LLMs) enhance efficiency and intelligent decision-making. Energy and resource companies can elevate workflows, streamline processes, and empower operations, maintenance, engineering, and other personnel with on-demand insights.

Journey to Zero: Using AI to meet safety goals

GenAI can accelerate and simplify sifting through the vast amount of asset documentation used by asset operations to respond to “Journey to Zero” safety incidents. With tools like chat-based conversational search, content discovery, summarization, and translation, staff can deliver safer asset operations through faster and easier access to critical information to streamline operations and keep assets running safely.



Is GenAI really for the energy and resource sector?

GenAI deployed within an enterprise-ready content management platform rapidly finds, organizes, and enriches large volumes of asset documents. It systematically locates and comprehensively summarizes operational procedures, equipment manuals, product datasheets, and more, providing a quick and efficient method for users to grasp essential steps and other asset information.

Key capabilities include:

Chat-based conversational search
Uses natural language processing to enable operations, maintenance, and other staff to chat with systems intuitively. This approach extends beyond traditional search methods and offers opportunities for dynamic access to vital information in safer asset operations.

Asset documentation summarization
Transform asset documentation by producing concise, digestible summaries and translations that improve efficiency, accelerate decision-making, and enhance operational effectiveness.

Trusted information that empowers employees
With an AI-powered intelligent assistant at their fingertips, employees can instantly access and trust critical information for safer operations, enhancing real-time decision-making and problem-solving capabilities across diverse scenarios.

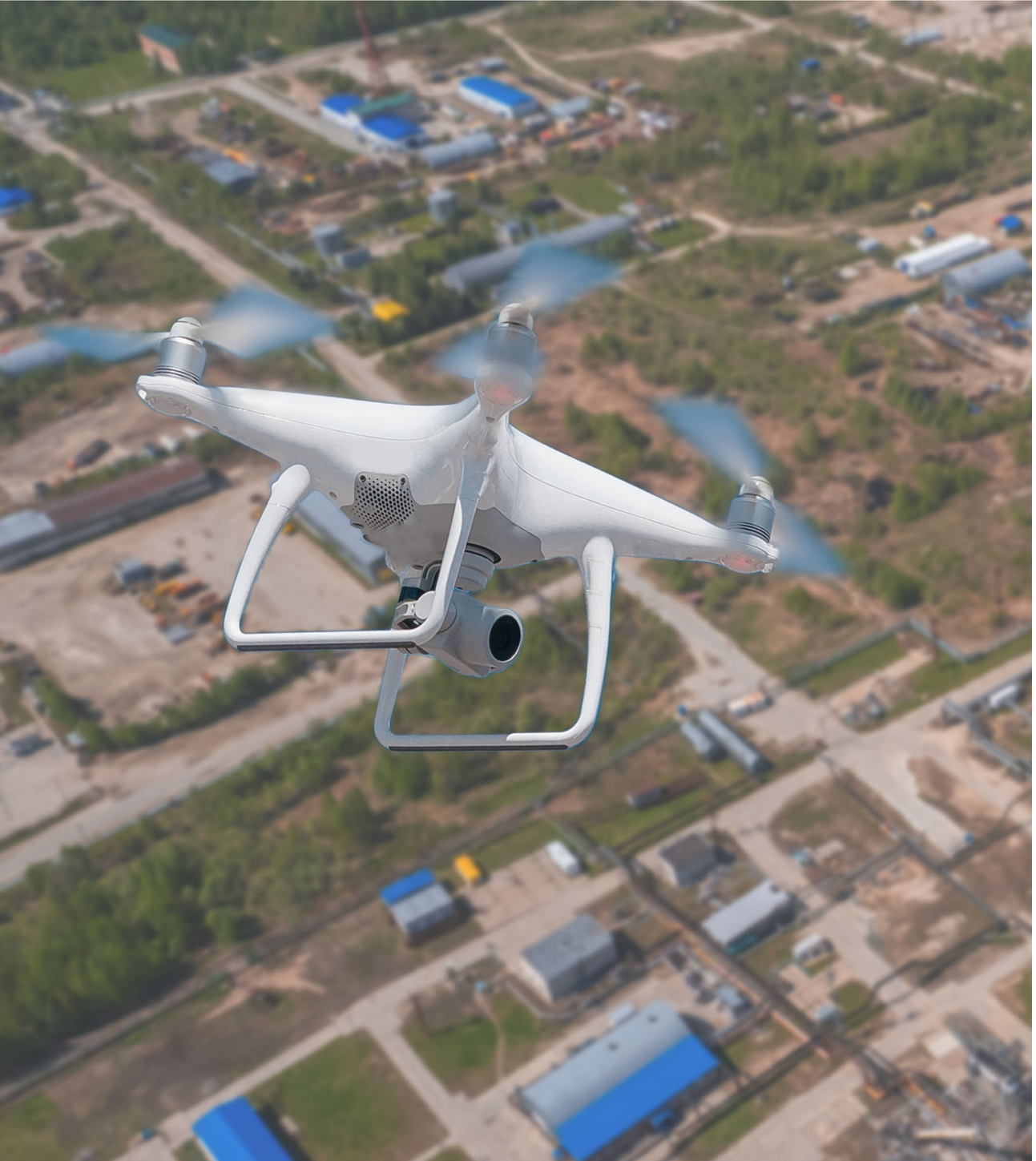
#3 Expand asset surveillance and knowledge discovery through AI

AI technologies expand asset surveillance capabilities, facilitating a dynamic, comprehensive approach to operational oversight.

By extracting valuable information from visual data sources, particularly photos and videos from imagery drones and satellites, AI is helping energy companies achieve 360-degree asset intelligence for improved surveillance. It can significantly enhance the accuracy and efficiency of data extraction from unstructured information.

AI won’t replace jobs—it will enhance them

AI isn’t going to replace jobs in energy and resources. Instead, it will enhance them and make them safer. AI-powered technology reduces manual tasks and simplifies processes so employees can focus on hands-on tasks, using human expertise and skills at scale, where they’re needed most. It ensures digital continuity, risk analysis, and efficient operations, highlighting the complementary relationship between technology and human capabilities.



Diverse applications of AI in asset surveillance

Let’s look at the transformative nature of asset surveillance and knowledge discovery using AI.

- **Access the asset data you need**
  Access and search more than 160 repository sources of asset information and more than 1,900 file types to ingest, view, scan, classify, and tag asset information.
- **Detect and identify key asset objects**
  Automate the processing and analysis of asset photos, satellite imagery, drone videos, and image files to detect leaks, corrosion, and other hazardous conditions.
- **Enhance site security**
  Automatically detect people, faces, vehicles, license plates, and more to keep your restricted sites secure and safe.

8 ways your energy and resources company could benefit from AI and analytics

Enhancing asset operations through smarter information using AI technology delivers multiple benefits for energy companies, including:

1

Operational efficiency

Tools like AI-powered assistants streamline access to asset information to increase wrench time and decrease downtime.

2

Cost reduction

Never send a human to do a machine's job. Use AI and analytics to spend less time searching for information and more time executing tasks only your employees can safely execute.

3

360-degree asset intelligence

Energy companies can gather insights from unstructured information, even photos and videos, to identify hazards and avoid unplanned shutdowns.

4

Predictive maintenance

Reduce unplanned outages and enhance equipment reliability by detecting failures before they occur using advanced AI technology and analytics.

5

Safety enhancement

GenAI helps make information like policies, procedures, and safety guidelines easily available to personnel so they have what they need to work safely and efficiently in a compliant way.

6

Environmental impact reduction

Automatically identify environmental hazards, such as pipeline leaks or vegetation overgrowth, with video and image AI and analytics.

7

Regulatory compliance

Simplify adherence to regulatory standards by making it easier to access procedures, safety forms, checklists, and other critical asset information.

8

Innovation and adaptability

Significantly reduce time spent searching for information or performing repetitive, manual tasks. Spend more time innovating, strategizing, and modernizing to deliver energy to the world safely, cost-effectively, reliably, and sustainably.

Your partner in delivering smarter asset information management

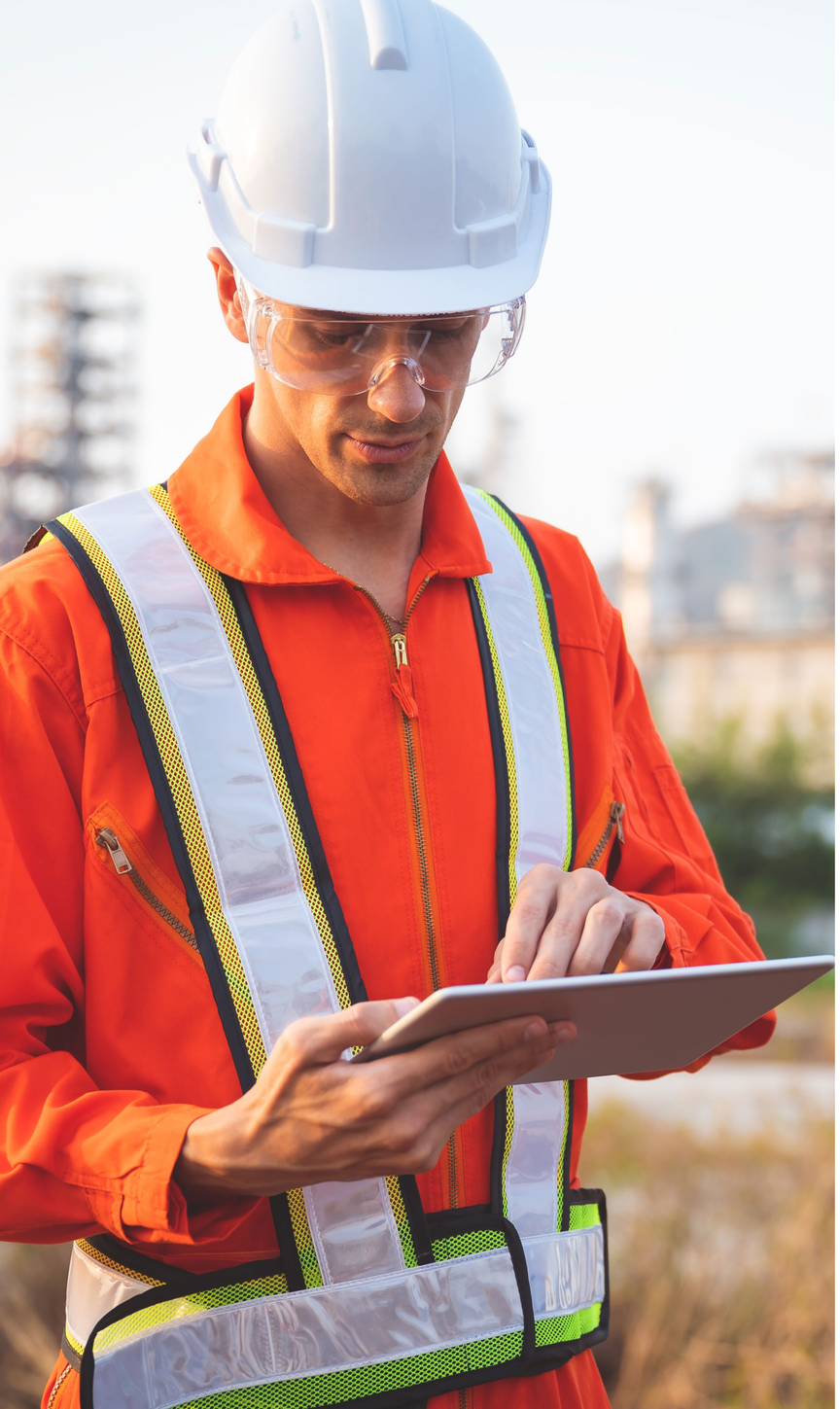
OpenText is the world's leader in information management and offers the most complete and integrated platform. No information management platform is more secure or scalable to manage high volumes of information at various stages of the asset lifecycle.

We serve thousands of energy and resources companies across the world in their journey to reimagine information management and elevate the potential of their employees.

Let's get started

"By moving to condition-based maintenance and the predictive analysis that OpenText provides, our customers will reduce their maintenance costs by 20 percent."

Dirk Seckler
Global Head of Sales, Knorr-Bremse Group



Asset operations with OpenText Aviator

OpenText™ Content Aviator brings the power of generative AI and large language models (LLMs) into OpenText content services platforms, including OpenText™ Core Content Management, OpenText™ Content Management (Extended ECM) and OpenText™ Documentum™ Content Management.

Aviator use case

An energy organization experienced an unplanned shutdown of a high profile asset. The operations and maintenance teams need to quickly get the asset running so that the business unit doesn't miss its production targets.

Bill wants to use Aviator to:

- Quickly obtain all the engineering drawings, past work orders, and other asset documentation
- Ask when the last maintenance and inspections were completed on the asset
- Summarize failure history on the asset
- Initiate lockout tagout and other safety workflows to begin work on the asset

Bill can start with the Earn Your Wings program:

- Upload asset documentation into the cloud
- Vectorize metadata and apply full large language model and be ready for searching

Results

Aviator will:

- Summarize asset documentation and workspaces
- Provide relevant information regarding the equipment
- Link to relevant documents
- Translate asset documentation into local language
- Act as a virtual subject matter expert

Aviator can help energy corporations streamline asset operations and access relevant information in less than 60 seconds

Additional resources

Information management for energy and resources

Digital twins reimagined at scale for energy and resources

Customer story: Western Midstream

Safer energy operations with AI and analytics

Get In Touch

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About OpenText

OpenText, The Information Company, enables organizations to gain insight through market leading information management solutions, on premises or in the cloud. For more information about OpenText (NASDAQ: OTEX, TSX: OTEX) visit opentext.com.

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