

# Put the Complex into Context

Ensuring capital projects stay on time and on budget

From specific challenges and targeted solutions to short and long-term benefits, this paper considers the ways Enterprise Content Management (ECM) can help your organization effectively manage the vast amounts of financial, operational, and regulatory information capital projects involve. OpenText Capital Projects is the recommended solution to help companies address a vast range of capital project needs.



## Table of Contents

- 1.0 Introduction ..... 3
- 2.0 Managing the Information Explosion ..... 4
- 3.0 Moving Beyond Point Solutions ..... 5
- 4.0 Bring Content Together to Set Your Company Apart..... 6
- 5.1 OpenText Capital Projects..... 7
- 5.2 Case Studies..... 9
- 5.3 Why OpenText?..... 11
- 6.0 Take Your Capital Projects to the Next Level..... 12

## 1.0 Introduction

Delivering on the world's energy needs is big business. Enormous production sites like the oil sands or the Kalgoorlie Super Pit; the massive field equipment and assets related to offshore drilling and liquid natural gas operations; the vast scope of the sector's global footprint—from any perspective, energy is a business that defines “large scale.”

Given the industry's size, it is no surprise that energy companies execute some of the largest, most resource-intensive capital projects in the world. In recent years, however, the complex-ity of capital projects has spiraled. Faced with limited resources, commodity price volatil-ity, mounting environmental compliance requirements, and a depleting talent pool, energy companies are fighting a battle to keep capital costs under control. It is a battle many are losing as cost overruns and project delays are rising across the industry.

To counter these risks, companies investing significant time, money, and resources in capital projects must do everything they can to ensure success. Enterprise Content Management (ECM) plays a key role in this process for organizations from every energy sector, including oil and gas (O&G), petrochemical, utilities and mining. By making the right information available at the right time, ECM can help owner-operators, Engineering, Procurement and Construction (EPC) contractors and Equipment Manufacturers and Suppliers (EMS) improve their decision-making abilities. From specific challenges and targeted solutions to short and long-term benefits, this paper considers the ways ECM can help your organization effectively manage the vast amounts of financial, operational, and regulatory information that capital projects involve.

**“Forty to 50 percent of all major construction projects run longer than planned and incur significant cost overruns.”**

CONSTRUCTION MANAGEMENT  
ASSOCIATION OF AMERICA



## 2.0 Managing the Information Explosion

While countless factors contribute to capital project complexity, information management is becoming an increasingly critical concern. Infrastructure investments such as buildings, oil rigs, power plants, and oil refineries have lifecycles that span decades, creating significant data challenges for their owners and operators. Such projects have literally tens of thousands of documents and other forms of information associated with them, including hundreds of contracts and project-critical information. This includes business, financial, and strategic content generated by the company itself. It also includes engineering drawings, specifications, certifications inspection reports, EMS documentation, and asset maintenance schedules. With each passing year, projects also grow to include an overwhelming number of external documentation to meet the more stringent requirements associated with regulatory, environmental, and financial reporting.

To manage this potential information overload, many companies are refining their IT strategies. Rather than spending on purpose-built systems that will not transition beyond the current project, leading companies are investing in integrated systems capable of seeing them through multiple capital projects. By streamlining their information gathering and management processes, these systems do more than mitigate capital project risks. They also position energy companies to make faster, more informed decisions, enabling them to accelerate production schedules to gain a long-term competitive advantage. At the same time, these systems establish the right connections between people, assets and information to capture both structured and unstructured content. This ability to manage all relevant information from a single point of truth can make the difference between project success and failure.

### Energy-Specific Challenges:

CHALLENGE	DESCRIPTION
Increased regulatory demands	Capital intensive industries, including petro-chemical, utilities, and energy, face mounting regulatory scrutiny for plant safety, risk management, and environmental responsibility.
Turning quantity into quality	Capital projects generate an enormous amount of content that must be turned into quality, project-driving data, ideally managed in a way that makes it easy to find the single point of truth.
Risk mitigation	Significant compliance risks must be managed from the beginning, including health and safety, environmental laws, local permits, licenses, and project management standards.
Budget management	With many large projects plagued by cost and scheduling overruns, controlling the budget from the early stages can have a huge impact on project sustainability.
Commissioning, handover and transmittals	Content handover issues can derail a previously successful project. If information cannot pass successfully, consistently, and efficiently from one project phase to the next, continuity, accountability, and productivity are lost.

## Asset Lifecycle



### 3.0 Moving Beyond Point Solutions

In the past, the energy industry relied extensively on built-to-purpose content management solutions to meet a variety of capital project content needs, which include scheduling, risk management, procurement, drawing management and more. While these solutions tend to work well for clearly understood and fixed requirements, they generally cannot be easily enhanced to meet shifting project realities. Moreover, multiple task-specific applications can be costly and cumbersome, often requiring customization or the use of further applications to achieve the data and program integrations so critical to large scope projects.

To handle the sheer amount and complexity of content that modern day capital projects generate, it makes sense to consider an enterprise-wide platform capable of managing all content requirements from a single point of truth perspective. ECM systems with capital project capability can be changed through simple reconfiguration (rather than code development). They also have comprehensive pre-built integration capabilities for core business systems such as SAP® and Oracle®, and core engineering systems like AutoCAD and MicroStation. The result is lower project cost and reduced risk of re-work, failure to meet compliance requirements, and project delays.

Because capital projects have a defined, consistent lifecycle, your ECM solution should provide single-point information access at every phase and for all stakeholders. It should also facilitate the integration and transmission of all information from end-to-end along the lifecycle continuum. Moreover, since energy is perhaps the most global of all industries, a good ECM system should facilitate collaboration and help you manage workflow between geographically disparate groups. To safely manage the risks global operations entail, you need the ability to transparently support your business processes and compliance requirements while maintaining an audit trail from project inception to completion. In essence, effective ECM solutions have a life beyond a single project, positioning you to reduce the future cost of projects to maximize your ROI.

#### Optimal Solution Checklist

To increase the chances of success for your major capital projects, you need the right ECM solution in place. Your solution should let you:

- **Manage** large volumes of highly specialized and unstructured documentation (e.g., CAD drawings, specifications, inspection reports, and maintenance schedules), allowing you to organize and cross-reference critical information at any time.
- **Track**, capture and manage information flow to reduce risks, avoid unnecessary expenditures, and prevent the last minute scramble to locate or recreate information.
- **Provide** intelligent linkages and context to your information and manage unstructured content, such as emails and documents and link it to structured content in your ERP or asset management system.
- **Automate** business processes through workflows, incorporate collaboration and social networking capabilities, and support your compliance with records management and archiving.
- **Collaborate** easily with multiple parties both internal and external to the organization, using intuitive collaboration, markup, and redaction tools.
- **Ensure** the complete and transparent lifecycle of your project's transmittals—including management of contracts, engineering submissions, and scope changes—from creation and review to auditing and retention.
- **Integrate** with other standard project management applications to limit information loss.

***Efficient collaboration begins at the design stage by ensuring the large volumes of design documentation are maintained in their latest revision, automatically numbered, cross-referenced and stored in a single location, ready for access in the construction phase and ultimately in the operator's Asset and Maintenance Management system.***

## 4.0 Bring Content Together To Set Your Company Apart

Running your project on the right ECM solution delivers a host of advantages and efficiencies, both in the planning and construction phases and over your assets' long-term operation, by enabling you to:

**Enhance risk management and regulatory compliance:** Creating high quality documentation from the beginning helps ensure regulatory compliance with complex accounting and tax rules, local permits and licenses, health and safety requirements, environmental laws, and project management standards. It also helps reduce the business risks of cost and schedule overruns.

**Ensure an efficient handover:** Integrated management of contracts, transmittals, engineering submissions, and scope changes helps ensure a smooth transition from construction to operation.

**Collaborate more effectively:** With the ability to collaborate on-premise, in remote branch offices or in the cloud, you can work on the networks and platforms your company prefers, with future adaptability built in.

**Accelerate output and operational returns:** You can minimize your time to sustained operational output by uncovering and planning for the majority of operating risks early on. Mitigation measures would include the integration of inspections best practices and the transfer of full documentation to operational systems.

### **Additional benefits include:**

- Clear visibility into business processes
- Checks and balances for information, tasks, and expectations
- Full operational readiness prior to facility start-up
- An asset management solution and supply chain that is fully in place to support start-up operations and maintenance
- Less effort wasted and reproduced in managing information, communicating and collaborating, and transferring the right information to operations.



## 5.1 OpenText Capital Projects

Using a fully integrated structure, the OpenText Capital Projects solution encompasses the design, build, and handover-to-operations phases of capital projects. The process is designed to enable efficient collaboration, document management, compliance, risk management, and reporting through the complete lifecycle.

OpenText Capital Projects is more than a simple project management system. It is a holistic solution to a complete range of capital project needs. Key product features include:

### Transmittals management (Document Control)

Standardize and secure a complete and transparent lifecycle for a capital project's transmittals, from creation and review to compliant auditing and retention.

### Controlled engineering records management

Integrate all documents and records – in all file formats – into work processes and make documents available whenever they are required.

### Collaboration

Have a single, authoritative repository for storing and organizing electronic documents and leverage powerful tools that encourage collaboration among all parties involved.

Integration to your ERP and/or enterprise Asset management (EAM) System Capital Projects integrates with most Project Management and ERP software applications, which provides valuable context to your content and makes sharing content across various systems and processes effortless.

### Contract management

Leverage powerful contract management functionality for managing requests for information (RFI), requests for proposal (RFP), and contracts throughout the entire life of the facility.

### Vendor and Supplier Invoice Management

Provide timely and cost-effective access to supplier information through integration with Oracle or SAP ERP systems, which opens a world of possibilities, drawing together a tighter collaboration between owner/operators, EPC business processes, and vendors.

### Secure viewing and annotation tools

The OpenText™ Brava!™ technology allows you to view and edit content without the native application. Brava! opens original files on the server and streams page renditions to the view client. By doing so, the original file is never transferred or changed in any way. The redaction and Visual Rights® technology protect content security.

### Branch office and remote site support

OpenText™ Remote Cache is a distributed document caching solution that provides remote site users, connecting over low bandwidths, with faster access to documents for fetching, viewing, and downloading. Remote Cache stores local copies of recently requested documents, HTML renditions of documents, and embedded images, giving remote users dramatically faster access to information in OpenText™ Content Server.

### Mobility

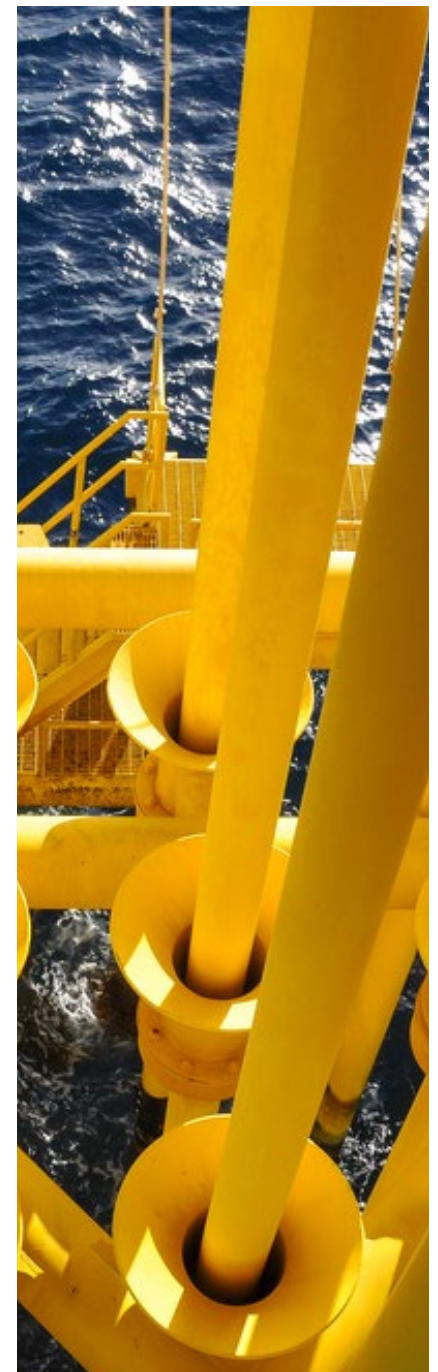
OpenText mobile solutions provide your workforce with the ability to access and manage business content, keep workflow processes moving, and stay up-to-date with colleagues by using social collaboration capabilities within a single native application.

### Cloud-ready

Rapid deployment means you can start capturing your project information early. Our cloud solution allows you to bring your capital project information back on-premises as the project grows or you handover the asset to the owner-operator.

## OPENTEXT CAPITAL PROJECTS DIFFERENTIATORS

- *ECM is our foundation, not a product feature*
- *Regulatory compliance and e-discovery are core components*
- *Integration with other core business systems, such as SAP® and Oracle® ERP, is a cornerstone of the solution*



## 5.2 Case Studies

### Customer

Barrick - The world's leading gold producer

### Challenge

With interests in 25 operating mines and numerous global development projects, the company's needs had thoroughly outstripped the capabilities of paper-based content management processes. To ensure stakeholder access, data security, and global collaboration capabilities, they needed a single, integrated content management solution for all regions.

### Solution

Barrick acquired a company that already had OpenText Content Server in place and decided to adopt it across the organization. Subsequently, it adopted OpenText™ Transmittal Management, OpenText™ Virtual Folders, and OpenText™ Explorer Professional.

### Results

Since implementing a suite of OpenText ECM solutions, Barrick can:

- Unify documentation from multiple global regions into one system
- Significantly reduce document search time
- Increase speed and ability to get information, shortening project schedules and costs
- Achieve end-to-end content management as content flows through critical processes
- Improve information sharing

### Customer

Hatch - A global engineering and construction management organization

### Challenge

Hatch has implemented the OpenText Capital Projects solution, a web-based system that creates a global virtual collaborative environment. Hatch branded the solution internally as WorkSHARE. Hatch employees can now easily and securely share documentation and project knowledge with contractors and clients anywhere in the world. WorkSHARE software components include OpenText Content Server, OpenText Transmittal Management, OpenText™ StreamServe Correspondence Management, and OpenText™ Engineering Document Management.

### Solution

Hatch has implemented the OpenText workSHARE solution, a web-based system that creates a global virtual collaborative environment. Hatch employees can now share documentation and project knowledge with contractors and clients anywhere in the world. WorkSHARE components include OpenText Content Server, OpenText Transmittal Management, OpenText Correspondence Management and OpenText Engineering Drawing Management.

### Results

With OpenText Capital Projects in place, Hatch has been able to:

- Access project documents quickly and easily
- Manage controlled information more efficiently
- Support and improve regulatory compliance policies
- Improve risk and quality procedures
- Reduce turnaround time for document reviews and receipt, as well as supplier and vendor data certification



# BARRICK

***“Every single document that is required to build a mine is stored in OpenText™ Content Server. It is there in one repository as opposed to being scattered over multiple systems.”***

TONY SANTILLAN, A PROJECT MANAGER, INFORMATION MANAGEMENT AND TECHNOLOGY GROUP, BARRICK GOLD.



***“WorkSHARE enables the control and management of critical documentation between Hatch clients, vendors and joint-venture partners. In fact, several of our clients have adopted the system for their own project use within the Hatch environment.”***

MS. FRANSIE BLOEM, WORKSHARE DEVELOPER MANAGER, HATCH.



## 5.3 Why OpenText?

OpenText is the world's largest independent provider of Enterprise Content Management (ECM) software. The company's solutions manage information of all types for business, compliance, and industry requirements in the world's largest energy companies and professional service firms. OpenText supports approximately 46,000 customers and millions of users in 114 countries and 12 languages.

With more than 20 years of experience in Enterprise Content Management (ECM), OpenText has unmatched success in helping organizations capture and preserve corporate memory, increase brand equity, automate business processes, mitigate risk, manage compliance, and improve competitiveness.

OpenText Capital Projects is part of a larger portfolio of Energy Solutions from OpenText, which includes offerings for Plant Asset Management, Engineering Document Management, Contract Management, and Transmittal Management. Companies are choosing OpenText to help solve interrelated business problems where integrating people, processes, and business information is advantageous, and driving efficiency and improving organizational agility are critical.



## 6.0 Take Your Capital Projects to the Next Level

Whether you are an owner-operator, EPC contractor, EMS vendor, or working in the oil and gas, petrochemical, utilities or chemical sectors, your involvement in large-scale capital projects means you must manage a broad range of data, documents, records, plans, blueprints, regulatory guidelines, and compliance documents—in structured and unstructured form. It is an enormous challenge and, if left to chance or tackled with multiple incompatible systems and platforms, can even be crippling. Energy companies looking to take their capital projects to the next level and meet the industry's complex challenges require a higher level of ECM quality, efficiency and integration.

As organizations face mounting industry challenges, such as heightened regulatory attention, globalization, talent shortages, financing shortfalls and cost-cutting pressures, it is important to carefully consider the benefits of a capital projects ECM solution. A reliable, enterprise-class platform can become a core strategic investment for your company and its assets. In today's economic climate, organizations simply cannot afford to have expensive capital initiatives fail because information overload got the better of them.

Information should work for you, not against you. Seek out tailored ECM solutions that can help you reduce risk, stay on time and on budget, and drive sustainable long-term performance.

To learn more about how effective ECM can drive your capital projects' success or for specific information on Open Text Capital Projects software, please contact:

[Advisors@opentext.com](mailto:Advisors@opentext.com)  
1-800-499-6544

### ABOUT OPENTEXT

---

*OpenText is the world's largest independent provider of Enterprise Content Management (ECM) software. The company's solutions manage information for all types of business, compliance, and industry requirements in the world's largest companies, government agencies and professional service firms. OpenText supports approximately 46,000 customers and millions of users in 114 countries and 12 languages. For more information about OpenText, visit [www.opentext.com](http://www.opentext.com).*

[www.opentext.com/contact](http://www.opentext.com/contact)