Dow Chemical Company

Knowledge management programs make critical information easier to access, share, and secure.

"The ability to manage and share information among R&D team members is critical."

Anne E. Rogers,
Leader,
Proprietary Information Services,
Dow Chemical Company

DOW®

There's a new way to look at it.®

Xerox aids leading chemical company with strong knowledge/management programs.

Client Profile

With annual sales of $40 billion and 43,000 employees, the 105-year-old Midland, Michigan-based Dow Chemical Company is a leading science and technology business that provides innovative chemical, plastic, and agricultural products and services to customers in more than 175 countries. As a leader in globalization, the company requires seamless integration of all intellectual assets and worldwide operations.

Company founder, Dr. Herbert H. Dow, recognized very early in his career the importance of managing intellectual assets. Today, world-class intellectual asset management is yet another critical component of Dow's corporate culture.

The Challenge

A strong proponent of knowledge management, Anne E. Rogers, Leader, Proprietary Information Services within the Business Intelligence Center at Dow, is responsible for the long-term retention of some of the company's key intellectual R&D assets. They include complex technology reports and proprietary market research, as well as the tracking of invaluable lab notebooks kept by their scientists.

"A scientist works by leveraging what's already been done and then carrying it further," explained Rogers. "The easier you can make it for a scientist to discover what's already been done, the faster you can bring new products from idea to market."

While Dow scientists could search an electronic database with the current system, they had to then wait five to seven days for older documents to be located and manually retrieved from a number of storage facilities staffed by Rogers' team.

Documents need preserving

The first papers selected for digital conversion were from Dow's earliest R&D documents dating back to 1937. The initial driver of the project was preservation. This collection had the highest percentage of onionskin, which was already starting to crumble with age, and the words and images were

literally disappearing off the page. Since there was only a single copy of many of these key papers, Dow was very concerned about the absence of a disaster recovery plan and their ability to safeguard mission-critical documents.

Integration of knowledge a concern

Rogers and her team were also charged with harnessing critical documents and intellectual assets obtained through recent mergers and acquisitions. In 2001 alone, Dow announced the purchase of six major companies and completed a merger with Union Carbide Corporation (UCC).

The value of each acquisition is often rooted in the collection of documents that map its technology breakthroughs and track product development. Dow scientists were anxious to have all of these newly acquired collections seamlessly integrated into Dow's global knowledge base as quickly and as cost-effectively as possible.

Xerox comfortable with high volume

In preparing the Request for Proposal, Dow emphasized the need for high-quality imaging within a very secure environment from a vendor that could process, in a timely fashion, the large volumes of confidential information anticipated. According to Rogers, of the vendors who could actually get the job done, Xerox came in with the most cost-effective solution.

The Solution

Xerox worked with the Dow team to develop a very detailed project specification, where all of the possible issues were identified and processes worked out up front. Dow documents arrived daily at the Xerox Imaging Center in Hot Springs, Arkansas, where typical throughput averages one million pages per month.

Here, documents were scanned, reports were reassembled, and images further enhanced before Adobe® Acrobat® PDF files were created. The PDF files were then inspected for quality and completeness before being transferred onto CD-ROMs and shipped back to Dow.

Detailed project estimate required

In the first phase of the project, Dow relied on database records to calculate the size and scope of the collection; however, they called upon Xerox Imaging Specialists to accurately evaluate the condition and scannability of the older, legacy documents.

For those documents received as a result of mergers and acquisitions, Dow needed more information about the size, scope, amount of duplication, and overall condition of the materials to more accurately assess the size of each subsequent digitization project.

For a detailed project estimate, Dow once again called upon Xerox Document Specialists to survey the collections, including the rather sizable technical library obtained from the Union Carbide merger.

"This was a very complex project, and we were highly impressed with their imaging expertise, the security of their operation, and their system for real-time tracking of every page of every document throughout the imaging process."

Anne E. Rogers,
Leader,
Proprietary Information Services,
Dow Chemical Company

Many kinds of documents found

This collection was far from uniform, making high-volume digitization problematic. In some reports, there were handwritten or mimeographed "originals," different color and size papers, oversized blueprints, and even pages with product samples glued to the note pages. Some reports were found in hardcover books, which needed to be unbound before scanning.

"Xerox showed incredible flexibility and a willingness to work with us whenever exceptions or surprises like these were discovered," said Rogers. "They would give us options for different handling and imaging choices, which made it very easy for us to make better, more-informed decisions quickly."

The Results

Once the initial Dow collection was made available to R&D scientists and strategic partners around the world, access levels immediately quadrupled and continued to rise from there. Scientists were thrilled with the immediate access.

According to Rogers, as Xerox technology finally made it feasible to digitize critical legacy documents, it was exciting to see how providing global desktop access to the entire Dow collection really made a significant difference to their scientists.

Along with high levels of user satisfaction, the Xerox solution had significant impact in other areas:

• Protected irreplaceable intellectual assets from destruction with a cost-effective disaster recovery plan and digital imaging solution

• Improved time to market by streamlining product development process and providing R&D instant global access to documents from any desktop

• Improved image quality and readability of Dow's oldest and most precious technical papers

• Quickly integrated the knowledge from its mergers and acquisitions, including Union Carbide, into a centralized Dow knowledge base

• Eliminated multiple collections, reduced storage costs, and redeployed staff for additional productivity gains

"We were also very impressed with the organization and the level of professionalism throughout Xerox. We dealt with document experts across the company at different facilities, and Xerox was always able to provide a seamless interaction for us," remarked Rogers. "There were no surprises with Xerox— what they spelled out was exactly what we got."

CASE STUDY
SNAPSHOT

The Challenges:

• *Preserve aging technology documents to improve readability and accessibility*

• *Establish a cost-effective disaster recovery plan for irreplaceable product development and technology papers*

• *Leverage intellectual assets from mergers and other acquisitions by integrating them with Dow's centralized knowledge base*

• *Streamline global R&D process and improve time to market*

The Solution:

• *Xerox Imaging Services' digitization of 5.5 million pages of documents*

The Results:

• *Improved time to market by providing seamless, online access to all critical R&D documents*

• *Reduced storage costs and redeployed staff for additional productivity gains*

• *Immediately quadrupled access to and retrieval of Dow's document collection, increasing user satisfaction*