



Archer Daniels Midland

Archer Daniels Midland’s Project GEMINI Launches EMIS to Cultivate Global Compliance Assurance and Efficiency

In 1902, George A. Archer and John W. Daniels established a small linseed crushing business in Minneapolis, Minnesota. Today, their company - Archer Daniels Midland Company (ADM) – has grown into a vast, international agribusiness with 30,000 employees working at more than 725 facilities to provide food, feed, fuel and industrial products in 160 countries around the world. ADM’s unmatched assets and global scale give the company a competitive advantage in the marketplace and the company’s growth over the years is attributable in part to the breadth and diversity of its operations. From a small peanut-buying station to a large corn processing facility, ADM provides customers with a matrix of value, a mix of agricultural products, and services that meet their specific needs.

“We play a vitally important role in the agricultural value chain that links the harvest to the home... So we have a vested interest in being good stewards of the environment, in sourcing crops that are responsibly grown and harvested, and in helping our communities around the world thrive economically and socially,” said Patricia A. Woertz, Chairman, CEO and president of ADM.¹

Historically, environmental information management was decentralized at ADM. Environmental managers developed their own work processes to meet the needs of their grain elevators, flour mills, corn processing or oilseed processing plants. Their information systems were narrowly scoped and fragmented because they had been built separately by consultants, locations, divisions and departments to comply with only the local, regional and national government regulations applied to their operations. Eventually, this diverse group of corporate and operations professionals formed an Environmental Leadership Team (ELT) to promote collaboration and enable joint decision-making.

In 2009, the ELT responded to proliferating regulations and demands for greater transparency from ADM’s senior management by hiring a third-party consultant to do a formal risk analysis benchmarking study of existing environmental practices and procedures. The ELT also worked with IT to assess the value of legacy environmental information applications - especially the homegrown Regulatory Management Information System (RMIS).

“Both groups concluded that we needed a formalized environmental management system (EMS) supported by a global environmental management information system (EMIS),” said Dan Taylor, Environmental Project Manager for ADM. “We could not expect to keep up with increasing compliance and voluntary reporting requirements using numerous systems, spreadsheets, and an

CHALLENGE

- Standardize corporate environmental processes and reporting
- Create one unified, global EMIS with access available from anywhere at anytime
- Enhance compliance with increasing regulatory and permit requirements to reduce risk

SOLUTION

Environmental Performance

- Compliance Assurance
- Task Management
- Audit
- Air, Water, Waste
- Chemical inventory

RESULTS

- Launched the first enterprise-level information system, a global EMIS to replace numerous local systems, spreadsheets and manual processes
- Pilot tested EMIS at 7 sites representing a variety of regional processing/purchasing facilities:
- Demonstrated ability to help European facilities maintain broad variety of permits
- Demonstrated ability to help U.S. facilities comply with regulations including Title V, TSCA, MACT, etc.
- Set the stage for full EMIS implementation that will ultimately serve thousands of users, working in 10 languages at 700+ facilities worldwide

outdated RMIS - it just didn't have the capabilities we need. A new, unified EMIS would enable us to do tracking, trending,

"We had built a formal business case with software and implementation costs included," said Taylor. "Using the cost information, coupled with the results of the global environmental risk analysis, allowed us to obtain senior management approval for the project. We then hired an independent consultant and had IT at the table to help us analyze leading off-the-shelf solutions and make the best choice."

The new EMIS - called GEMINI (Global Environmental Management Information Network Initiative) - was approved by senior management in late 2010. The team immediately purchased *Sphera Essential Suite*,[®] part of the Sphera Environmental Performance Solution, including capabilities for compliance, tasking, audits, air, water, waste, fugitives, chemical inventory and more.

The ELT and IT team began the implementation of GEMINI by deploying *Sphera Essential Suite* at 7 pilot sites, which represented various types of ADM facilities around the world - from large corn mills to small country grain elevators in the United States, Europe and South America. They began by implementing capabilities built specifically for compliance and task management.

GEMINI's pilot test was successful, demonstrating the new system fit ADM's requirements as a large, highly diversified global organization. First, it promoted standardization by collecting and managing a broad variety of environmental compliance requirements within a unified framework. It also established consistent industry best-practice workflows to ensure that tasks are assigned, tracked and completed. With GEMINI, the Company's environmental managers could drive efficiency and accountability by streamlining aggregation of environmental data across departments or trace issues back to their source for corrective action.

The pilot also showed how standardization is enabled by flexibility. Environmental leaders could overcome resistance to standardization by showing how this EMIS worked in a variety of settings.

"Flexibility is one of the strengths of the Sphera software," Taylor said. "We needed a system that could provide powerful data handling and reporting capabilities at large, complex processing facilities with hundreds of compliance tasks, while still being easy to use for a small country grain elevator that has fewer tasks. GEMINI will handle not only those differences in scale, but also the different kinds of compliance challenges that we face in our global operations."

and reporting of environmental data and consolidate that information across all levels of ADM."

The pilot showed, for example, how GEMINI can document compliance at ADM facilities in Europe that are focused primarily on permits - often historic, local, building permits with environmental requirements, as well as federal permits. At the same time, the Sphera system also proved well suited to generate reporting for U.S. facilities that are most concerned about federal regulations such as the Clean Air Act Title V, Toxic Substances Control Act (TSCA) regulations, and Maximum Achievable Control Technology (MACT) standards.

When fully implemented, GEMINI (with *Essential Suite*) will be used by thousands of employees - working in 10 languages - at more than 700 facilities around the world. The global implementation is being done in several phases. After compliance and tasking are in place, the team will move on to the media phase, including emissions tracking and performance metrics.

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While still in its early stages, GEMINI implementation demonstrates ADM's commitment to environmental compliance and continuous improvement. GEMINI is the *first* enterprise-level information system planned for implementation across the entire global organization. GEMINI also demonstrates how positive change can be driven proactively by a grass roots movement inside of a global organization like ADM. The ELT recognized the need, built the case for their solution, and received senior management's approval.

"It's vital to build support within your plants and divisions for this type of system, because they're the ones who will back you up when it comes time to implement the system at the facility level," Taylor noted. "Now we have strong support from our senior management too. We look forward to providing them with better visibility into our environmental performance tracking and trending, as well as confidence that all of our compliance responsibilities are being fulfilled."