Management Systems Services
EHS – Sustainability – Quality
Our Vision

AECOM is a global leader in providing fully integrated professional technical and management services for a broad range of markets. From designing energy and water systems, to enhancing environments and creating new buildings and communities, our vision is to make the world a better place. Every day on every continent, AECOM’s team of dedicated professionals work to positively impact lives and transform communities to realize our vision.

AECOM was created to design, build, finance and operate the world’s infrastructure. Whether we serve clients at one phase of the project lifecycle or throughout it, our role is to apply creative vision, technical expertise, interdisciplinary insight, and local experience to address complex challenges in new and better ways.

AECOM’s world-class energy management consulting services combine traditional consulting services with leading-edge business management practices. Among the services we provide are MIS requirements gathering, system section support, system development, integration, implementation, business analysis, and operation and maintenance support services.

Our senior-level professionals have extensive experience in manufacturing, automotive suppliers, transportation, and high technology industries, both domestically and internationally. We have seen what works and what does not work in MIS implementation efforts in a variety of corporate structures, facility sizes, and industrial process complexities. Our experience and knowledge allow us to help our clients consider the pros and cons of various approaches to MIS design, implementation, and continuous improvement.

Putting Our Know-How to Work for You

For more than 25 years, AECOM has established and maintained information systems designed to support management’s need to collect, analyze, and act upon large risk-related, compliance determinate data sets. Since the early 1990s, we’ve been at the forefront of Environmental Health & Safety (EHS) management systems, forging relationships with leading EHS, Sustainability, and Quality Software system vendors. These partnerships, coupled with our strong training programs, enable us to offer our clients world-class expertise in end-to-end enterprise level implementations.

Our proven design and implementation methodology focuses on the people, process, and technology components of enterprise integration. These complete life-cycle solutions address business case development, requirements/gap analysis, conceptual and detailed design, data collection, testing and deployment, training, and post implementation support.

The life-cycle process is implemented by applying AECOM’s rigorous project management procedures and our ISO 9001:2008-compliant Quality Management System (QMS). With AECOM as your implementation provider, you can expect successful project outcomes, in part because of this strict adherence to compliance and quality standards. An AECOM-led implementation team will help you identify and mitigate risks that could impact scope, cost, and schedule before development even begins.

We Speak Your Language

Your investment in software is significant from a financial, regulatory compliance, operational,
and business process perspective. Our MIS team is made up of certified and trained professionals who truly appreciate this fact because many of them once sat where you may sit now — as an EHS, MIS specialist, an EHS professional, or as a business process leader. Regardless of the context, we can say with confidence that we understand the complex regulatory world in which you do business every day. Our implementation expertise includes regulatory compliance and crosses a wide range of industries in the public and private sectors. Our diverse business process knowledge enables us to understand not only what your software investment is supposed to do but also how we can apply the software so it delivers a return on your investment.

**Evaluation & Selection**

Determining requirements and evaluating potential software solutions can be a daunting process, but AECOM can help. We use a standard evaluation approach that quantifies both user requirements and software vendor responses. The core of our approach starts with the AECOM MIS Requirements Library which is continuously refined.

By working with you, your business leads, IT, and procurement groups, AECOM will facilitate and guide your organization in determining and prioritizing functional and technical requirements. We will then deliver materials supportive to a request for information (RFI). Our approach allows for numeric quantification of the responses, which facilitates the selection of the best “fit for purpose” system. To support the selection process, AECOM will provide you with scripted scenarios (based on our understanding of your requirements and use cases) and will orchestrate presentations targeted to your requirements for your key stakeholders. If you and your team already have a solution in mind, our experience and tools can be used to help you confirm that the system will meet your requirements and to identify any gaps that need to be addressed to ensure that the selected vendor can deliver.

**Implementation Planning & Execution**

The benefits of good deployment planning are well known and include being on schedule and within budget. However, the primary benefit of planning is a system that performs as specified. At the core of good planning is experience, and AECOM can help you better plan your next implementation project.

AECOM began providing services for environmental and health & safety software development and implementations in the early 1990s. The AECOM practice has grown and evolved to meet the emerging market demands of sustainability, KPI metrics, quality assurance, and expanding compliance needs. During this time, AECOM has led the evolution from point-source style implementations to enterprise-wide implementations.

AECOM begins MIS — EHS, Sustainability, Quality software implementations by planning the project, then designs the software configuration, and carries the project through to deployment with post go-live support provided if desired. We bring to each project our EHS, Sustainability, and Quality subject matter expertise — improving the quality of the implementation, minimizing omission risks and ultimately producing a product that integrates well with your work practices and current systems. The end result? Critical user acceptance.

As a large (90,000 employees) and complex global corporation ourselves, AECOM recognizes the dynamic nature of organizational structures. Our architectural designs emphasize scalability and flexibility with an additional focus on simplicity and streamlining the users’ work process. This approach provides a client with a balance that meets business requirements and provides for minimal organization burden.

**Reporting System Designs & Builds**

Beyond the native reporting tools of off-the-shelf MIS software, AECOM works with you to design and build reporting systems that incorporate common reporting software such as Crystal Reports, Aspose, Business Objects, and SQL Server reporting services (SSRS) as well as web parts and software to create web-based dashboard presentations. We can design the architecture of your MIS software and your complete reporting system. Our holistic approach provides you with a richer experience and enables them to “open the
box" of valuable data to colleagues elsewhere in your organization, allowing operations to leverage what was historically compliance-focused data for more proactive, operational decision making.

**Custom Software Solution Designs & Builds**

The usefulness of an MIS is routinely measured by the delivery of easily interpreted information to the corporate communication systems used by managers (e.g., performance dashboards). AECOM has the experience and skills needed to build custom systems to address gaps and integrate them with the commercial off-the-shelf systems (COTs) using standard technologies supported and approved by your IT department.

In some cases, your business requirements for a solution may be so specialized that a COT will not be able to meet your requirements without extensive customization, an approach that will not serve you well over time.

In these situations, a complete custom software solution is better suited for you. AECOM will work with you to design and build a system that is tailored to your individual requirements and workflows, building on platforms such as SharePoint, Sitefinity, Drupal, etc., or from the ground up using technologies such as ASP.NET MVC, Java/J2EE, SQL Server, Oracle, Knockout JS, and others. We can build a system that speaks your language, understands your processes, and integrates with your existing data management systems.

**Integrated Solutions**

Commonly referred to as Data Extraction, Transformation, and Loading (ETL) systems, these systems have become “de rigueur” for all enterprise-level implementations. Our expertise with the complex ETL process includes designing, facilitating, and executing integrations between data systems and the EHS MIS software. Our years of domain knowledge and in-depth knowledge of EHS MIS requirements give our clients confidence that their ETL system will be properly planned, designed, and executed while minimizing or eliminating operational problems.

A management information system is only as useful as its ability to deliver information to external entities and corporate systems used by managers to analyze information. AECOM is experienced in configuring the EHS MIS to provide information to common systems such as corporate databases, enterprise reporting systems and managers’ dashboards.

**Mobile System – Design & Build**

AECOM provides a wide variety of MIS data access and collection services and makes them available for use with mobile devices. Our mobile EHS MIS application development services provide our clients with access to information from their EHS MIS so they can perform environmental inspections and maintain their ISO 14000 compliance without being in the office. Our custom-built mobile solutions put the information that you need at your fingertips when you need it most.

Whether performing EHS MIS compliance; monitoring greenhouse gases (GHG); collecting data for Title V reports or NPDES permits; tracking and reporting safety incidents; or collecting and analyzing data from quality audits, AECOM offers creative solutions for all major mobile device platforms, including iPhone®, iPad®, AndroidTM phone, AndroidTM tablet, and Windows® 8.

AECOM is a full service EHS, Sustainability and Quality MIS implementer. We develop mobile solutions that integrate into your existing system or as part of a comprehensive package. By implementing a mobile solution, your organization can realize the benefits from collecting and storing information in real-time.
time. While connected to your organization’s network, data can be transferred directly from the device into the EHS MIS. Information collected on the device when a network is not accessible can be stored on the device and synchronized into the EHS MIS database when a network connection is available.

Implementing AECOM-built custom EHS MIS mobile applications into organizational workflows will increase the efficiency of your EHS compliance and management programs. AECOM has a talented pool of application developers, programmers, and device specialists that will make your mobile implementation a success.

AECOM mobile technology expertise includes implementing, designing, facilitating, and executing “front-end” EHS, Sustainability and Quality MIS software, enhancing and extending the data gathering capabilities.

**Maintenance & Evergreening**

One of the least appreciated and, consequentially, more significant challenges, is maintaining the implementation in an “evergreen” state. AECOM recognizes that as organizations evolve and change, those changes must be properly managed. AECOM is well versed in managing these types of changes and preserving a stable structure while incorporating new or different features into the EHS MIS configuration. The AECOM implementation team is often asked to support clients with their system governance to ensure the sustainability and user satisfaction with the deployed system.

AECOM regulatory expertise benefits our clients by facilitating planning, accommodating tight schedules, and expediting project turnaround. We are continuously monitoring the regulatory landscape for our various clients so that we stay abreast of the latest changes.

Our real-time knowledge enables us to provide our clients with “early warnings” on potential changes in the EHS MIS landscape.

**Training**

AECOM recommends and provides “for-purpose” training beyond the generalist training provided by the MIS vendor. For-purpose training includes training materials and instructions composed using the as-deployed system at power-user, general-user, and simple-user levels. One benefit of AECOM’s training is that we target these distinct levels rather than only training administrative staff as software vendors generally do. Another key benefit is that we train to the “as implemented” system not the generic EHS MIS software.

Our training begins during implementation planning and continues through the go-live phase. Training is created to be “just right” for the implementation project stage as training too early is a waste, and training too late a failure.
Representative MIS Project Experience

Analysis & Assessments of Existing Systems
We can also work with you to improve existing implementations by performing an "owner’s engineer" style analysis to assess the quality and/or coverage achieved by the MIS. These engagements frequently lead to specific findings that improve the implementation through configuration adjustments or work process modifications that improve your data quality and system productivity.

Major Oil and Gas Company MIS Strategy and Implementation
One of the world’s largest oil and gas companies selected AECOM to participate in a strategy and planning project involving their global environmental (multi-media) emission calculations and reporting. The company was appraising the pros and cons of moving from disparate to shared systems and processes. The project involved gathering requirements related to the resources, processes, and outputs associated with internal and external environmental reporting.

Global Data Center MIS System Selection and Implementation
AECOM facilitated the determination of functional requirements based on the EHS MIS goals of a Fortune 100 company’s data centers. AECOM developed a quantifiable means of evaluating EHS MIS vendors and provided the response ranking and presentation scripts for the high scoring vendors to follow and facilitate their presentations. The project concluded with the successful selection of a qualified vendor, which led to an implementation phase where AECOM served as the “owner’s engineer.”

System Selection and Requirements Gathering
AECOM facilitated and coached Shaw Industries on determining its EHS MIS goals and functional requirements. Following requirements development, AECOM provided EHS MIS vendor procurement assistance by developing the RFI against requirements, analyzing and ranking the responses, and coordinating the presentations of the top ranked vendors. AECOM developed presentation scripts to guide the vendors while keeping the presentation focused on Shaw’s requirements.

Energy Company Multi-Media Implementation
For Detroit Edison Group (DTE), AECOM delivered a unique enterprise level multi-media, multi-phased, EHS MIS implementation (air, water, waste, compliance, incident, EDR legacy retention, etc.) that reflected energy industry best practices. AECOM was chartered, in partnership with the software vendor, to provide an implementation that incorporated the best practices and lessons AECOM developed over the last decade for the energy industry. The scope included intensive “super user” training to empower DTE personnel to build from the AECOM base system to the completed system. This approach
provided DTE with a lower project cost and a faster delivery than a standard EHS MIS implementation.

**Rapid Deployment Heavy Manufacturing Multimedia Implementation**

AECOM worked with a heavy manufacturing company team on an aggressive six month timeline to implement an EHS MIS across all of the company’s US and Canadian operations. The project included the air, water, waste, form R, and task management/compliance module configuration of a commercial EHS MIS system. AECOM developed an interface to the client’s Material Safety Data Sheet (MSDS) and audit systems. The delivered system included importing laboratory data, uploading data from handheld devices, and creating complex custom reports that allow the client to view performance across all sites/businesses and to analyze a wide range of metrics from waste generated to percent of compliance tasks completed on time, to normalized emissions.

**Fortune 100 Oil and Gas Compliance Management Implementation**

AECOM manages compliance and project activities for a major O&G client. The client required a robust compliance management system that provided transparency and a measure of the degree of compliance with environmental requirements. AECOM implemented a compliance assurance strategy and commercial tool to track required compliance activities. The compliance strategy described how applicable legal and other requirements would be identified, captured, tracked, and maintained in the application. AECOM was also responsible for developing the compliance task management content. AECOM implementation tasks included defining data fields, establishing pick lists, determining user roles and privileges, conducting end-user training, and loading all compliance requirements and tasks into the system. AECOM worked closely with the vendor on necessary system enhancements to address functional gaps. AECOM also provides system maintenance.

Benefits to the client included:

- Easy access to the application and visibility into the status of compliance in real-time
- Improved transparency into legal requirements and actions taken to complete them
- Reduced risk of non-compliance with environmental requirements
- Cost effective alternative to a customized tool for compliance
About AECOM
AECOM is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. A Fortune 500 firm, AECOM had revenue of approximately $18 billion during fiscal year 2015.

See how we deliver what others can only imagine at aecom.com and @AECOM.

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