Sustainable Solutions for the Global Chemical Industry

The business of sustainability
ERM’s sustainability advice is directly linked to our clients’ business objectives
Environmental Resources Management (ERM) is a leading global provider of environmental, health, safety, risk, social consulting and sustainability related services. We have more than 160 offices in over 40 countries and territories employing more than 5,000 people.

ERM is committed to providing a service that is consistent, professional and of the highest quality to create value for our clients.

Over the past three years we have worked for more than 50 percent of the Global Fortune 500 delivering innovative solutions for business and selected government clients helping them understand and manage the sustainability challenges that the world is increasingly facing.

For over 40 years we have been working with clients around the world and in diverse industry sectors to help them to understand and manage their environmental, health, safety, risk and social impacts.
Chemical Sector is a $3 trillion industry that touches almost everything we do in our daily lives.

Chemical distribution is being transformed globally by the West fertilizer explosion creating responsible distribution programs around the world.

Merger/acquisition and divestiture activity up 50% to all-time high levels.

A growth rate of 10–12% per annum through 2017 is expected based on the increasing demand for chemicals across various sectors, as well as a growing middle-class population, rising disposable incomes and consumption. A rising trend in end consumption demand for paints, textiles, adhesives and construction is leading to substantial growth opportunities for chemicals companies.

Agrochemicals and specialty chemicals in particular, are key to the success of the chemical sector. Promoting a market for sustainable products is a top business priority in terms of sustainability especially the agrichem sector.

Shale deposit, natural gas and low oil prices create new energy solutions driving a surge in the chemical sector.
ERM across the chemical industries’ asset lifecycle

**Feasibility**
- Environmental, social, health impact assessments and due diligence
- Resettlement plans and stakeholder engagement frameworks
- Sustainability master plans to improve socioeconomic performance across the lifecycle of the operation
- Adaptation issues to physical risks e.g., water stress, climate change, etc.

**Concept**
- Risk control strategies
- Identify community stakeholders
- Build credibility with community and regulatory stakeholders
- Map potential fatal flaws and other project constraints

**Construction**
- Permitting
- Design and implement detailed management plans to minimize sustainability risks and maximize opportunities
- Manage community interactions with construction workforces
- Monitor and audit environmental, social, health and safety performance

**Closure and decommissioning**
- Risk based exit strategies
- Develop sound closure goals
- Manage long term liabilities
- Help ensure sustainable transition for post closure communities
- Implement decontamination and demolition programs

**Operations**
- Implement and monitor environmental, health and safety management systems
- Behavioral safety programs
- Enhance productivity by improving sustainable performance
- Audits and interventions to improve environmental, social, health and safety performance
- Manage risk
Services we offer

**Transaction Services**
Providing critical, time-sensitive advice on the environment, social and related governance and sustainability risks and liabilities associated with mergers and acquisitions.

**Impact Assessment and Planning**
Helping to deliver sustainable projects by managing environmental, social and health impacts.

**Sustainability Safety**
Helping clients create a safer workplace.

**Performance and Assurance**
Helping corporations reach their environmental, health and safety performance potential through operational improvement and cost optimization.

**Risk Management**
Quantifying and managing the safety risks associated with hazardous installations and processes, with the objective of protecting people, assets and the environment.

**Air Quality and Climate Change**
Proactively addressing challenges around air quality, carbon management, energy efficiency, and climate risk.

**Corporate Sustainability Strategy**
Advising corporate leadership on their sustainability agenda.

**Information Solutions**
Meeting clients’ information needs through expertise in software solutions, configuration and deployment, and the environment.

**Contaminated Site Management**
Creating strategies and implementing projects to support the life cycle of contaminated site mitigation from initial investigations and risk assessments to remediation.
Key challenges faced by the industry

Resource and environment sustainability have remained as major areas of concern for the global chemical industry. Water management, environmental impact, raw materials, product sustainability, safety over lifecycle, and energy use have been reported as key issues that the industry has been facing globally.

Some of the common challenges faced by the chemicals industry include:

- **The impact of feedstock prices changing the global footprint of chemical companies**
- **Increasing regulatory demands**
- **Maintaining cost control**
- **Non-technical risks delaying capital projects such as labor shortages and the increasing impact of community involvement**
- **Safety programs not delivering the necessary changes in performance**
Our value proposition

ERM partners with chemical industries to help them:

**Enter New Markets**
By geography, company and asset

**Deliver Capital Projects**
Efficiently, safely, compliantly, on time and on budget

**Sustain Operational Performance Improvement**
Seeking sustainable, safe, cost-effective, compliant operations

**Develop Asset Retirement Strategies**
Closure, decommissioning or divestment
Key issues that we help our clients address

Maximizing productivity and efficiency in a capital-constrained environment: data efficiency, system streamlining, resource efficiency, information solutions, and sustainable operational excellence.

Safety
Major incident and accident prevention, reducing likelihood of fatalities, improved risk management and control, design and implementation of project safety management systems.

Water and Resource Management
Strategy, risk based approach, technical solutions, climate change adaptation.

Social Issues, including Human Rights and Social Licence to Operate
Resettlement, stakeholder mapping and engagement, local economic development programs, strategy, community conflict resolution, infrastructure access.

Merger and Acquisition and Project Finance
Buyer and vendor due diligence, transaction strategy to enhance/protect reputation, liability estimation, compliance assessments, material issue identification and quantification, financial modelling.

Closure Strategy
Closure execution plans, closure risk assessment, community master plans, predictive modeling, financial provisioning, portfolio assessment, closure optimization through physical asset recovery.

Product Stewardship
Managing risks and developing opportunities.

Compliance and Governance
Increasing regulatory pressure and shareholder expectations leading to the critical importance of compliance and governance.

Sustainability Strategies
Developing sustainability strategies and reports in accordance to GRI G4.0 framework.
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About ERM

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For over 40 years we have been working with clients around the world and in diverse industry sectors to help them understand and manage their environmental, health, safety, risk, and social impacts. The key sectors we serve include oil and gas, mining, power, manufacturing, chemical, and pharmaceutical. All face critical sustainability challenges and our clients in these and many other areas rely on our ability to assist them to operate more sustainably which has a positive impact on our planet.