ES-DATA

Environmental, health, safety (EHS) and Sustainability - Data Analytics and Technology Advisory Services
How data and analytics are transforming EHS and sustainability

Rapid advances in data management and analytical capabilities are transforming the way companies conduct business. For EHS and sustainability, data analytics and solutions increasingly are being used to improve operational efficiency, manage risk, reduce costs and drive innovation.

Examples of leading data practices for EHS and sustainability

- Data collection and analysis facilitate predictive modeling for enhanced operations and cost savings.
- The use of predictive analytics helps forecast regulatory non-compliance or safety risks, helping management take pre-emptive action.
- Streamline product stewardship and value chain management through data management and analytics.

Business benefits

Efficient data management, insightful analytics and ongoing effectiveness assessments drive robust EHS and sustainability data and business benefits.

<table>
<thead>
<tr>
<th>Results</th>
<th>Manage risk</th>
<th>Save money</th>
<th>Make money</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ongoing effectiveness assessments address areas of systemic risk and identify potential opportunities for improved efficiency.</td>
<td>Data management can streamline processes and reduce operational costs.</td>
<td>Applied analytics can identify revenue-generating opportunities and operating efficiencies.</td>
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Three areas to build robust EHS and sustainability data and analytics

By focusing on three interdependent areas, organizations can build effective management and analytics systems. Controlled and efficient data management leads to the strong data needed for insightful analytics that inform process and data effectiveness assessments and accelerate business innovation.

- **Improve data management**
  - Standardize and streamline data collection processes
  - Implement data quality controls
  - Automate data collection, calculation and reporting
  - Establish clear roles and responsibilities
  - Aggregate data across systems

- **Apply analytics**
  - Identify, refine or develop metrics using existing data
  - Develop dashboards and reports using relevant data
  - Apply analytical methods to drive business decisions
  - Develop criteria, predictive methods or statistical approaches for advanced analysis

- **Assess effectiveness**
  - Assess and, where necessary, identify corrective actions for:
    - Data collection
    - System configuration and controls
    - Information technology (IT) solution connectivity and interaction
    - Analytical precision and business impact
    - Data protection and integrity

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**IT transformation process**

1. **Select**
   - Document requirements and facilitate selection of a software vendor
   - Develop business case for IT transformation

2. **Design**
   - Align business processes with IT solutions
   - Identify efficiencies and cost savings to expand and refine business case

3. **Implement**
   - Configure IT solution and test environment
   - Integrate external systems and complete system testing

4. **Deploy**
   - Launch IT system in production and implement change management
   - Retire legacy systems, conduct user training and finalize system documentation
Technology and the digitization of everything is one global megatrend driving future business. It is also a great opportunity strategically to drive your EHS and sustainability programs and enhance sustainable value creation.

EY can help you develop metrics and perform data analysis to enhance the value of the data being collected across your organization – increasing the potential for better, real-time decision-making.