



## SAS® for Sustainability Management

Predict and respond to environmental, social and economic risks and opportunities

### What does SAS® for Sustainability Management do?

Use SAS for Sustainability Management to measure, manage and report on environmental, social and economic indicators, calculate carbon footprint, determine causes and costs, measure performance of sustainability initiatives, improve transparency and compliance and evaluate alternative scenarios to identify actions that have the greatest impact on achieving your objectives.

### Why is SAS® for Sustainability Management important?

Effectively managing sustainable strategies leads to higher customer retention, reduced operational risks, improved profits and competitive differentiation, but requires consistent and consolidated data from across your enterprise and the ability to predict where your organization is headed. With SAS, you can reduce the manual effort required to get a regional or global view of sustainable performance and redirect those resources on analyzing results and identifying opportunities for improvement to prioritize your sustainable investments wisely.

### For whom is SAS® for Sustainability Management designed?

This solution is intended for organizations in all industry sectors who want to improve sustainable performance while also reducing risk and cost. Multiple users within an organization can use the solution, from the head of operations to the corporate social responsibility team, the EHS manager and the greenhouse gas (GhG) analyst.

Your organization's progress in sustainability can have a positive impact on your reputation, energy efficiency, employee retention, customer satisfaction and bottom line (or profitability). But first, you must be aware of current performance and understand opportunities to improve. In regulated markets, this is no longer optional.

Today, data about sustainable performance, such as energy consumed in facilities, fleet fuel use, water consumption, GhG emissions, natural gas usage, etc., is disparately tracked in multiple operational systems or rudimentary accounting files. The increasing frequency of reporting exacerbates this pain. Volatile energy prices and consumer demand are putting pressure on organizations to optimize internal processes and their supply chain in order to reduce environmental impact. Often, organizations do not have the enterprise tools to gather and manage this important data and derive real value from improvement projects.

SAS for Sustainability Management allows an organization to efficiently capture and organize this information and derive real value by applying the power of advanced analytics: predictive modeling, forecasting and optimization. Secondly, it delivers consistent and reliable intelligence about ongoing performance that can be shared with internal and external stakeholders using a variety of standardized reporting templates, including the Global Reporting Initiative G3 framework.

### Key benefits

**Determine the top causes of carbon emissions, waste or water consumption.** Go beyond simple footprint calculation. Using SAS, you can model your consumption of natural resources to understand the drivers of GhG emissions, waste or water in your activities, products and services.

**Model alternative sustainability projects and quantify their effect on achieving corporate objectives.** Understand correlations among key performance indicators to pinpoint areas for further analysis so you can identify the most relevant levers for change. By evaluating programs that minimize these activities, scenario modeling helps you fully understand the opportunities and liabilities of proposed sustainability projects, both individually and as a collective. And, it can be used to quantify the change in GhG emissions resulting from a proposed project.

**Reduce manual data entry and improve data quality – the foundation of decision support.** Automatically capture data from any source using flexible and robust data integration. Establish an integrated, consistent and reliable source of quality information to see a single version of the truth. Access easy-to-use business intelligence for detailed OLAP reporting and animated data visualization to plan improvement strategies, minimize risk exposure and measure results.

**Support compliance functions with accurate and timely data.** Account for carbon emissions using global standards and emissions coefficients for energy grids around the world. Integrate with carbon offset and



trading solutions and track performance to goals for organization-specific or globally recognized sustainability measurement standards.

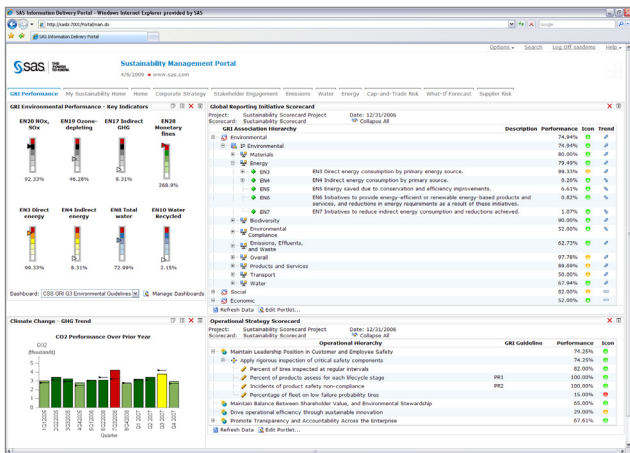
**Optimize assets and processes to streamline operations.** With SAS, you can evaluate key assets and resources for problem identification and analyze the value chain to optimize costs and maximize product responsibility. Integrated cost analytics give insight into the financial impact of optimization initiatives.

## Solution overview

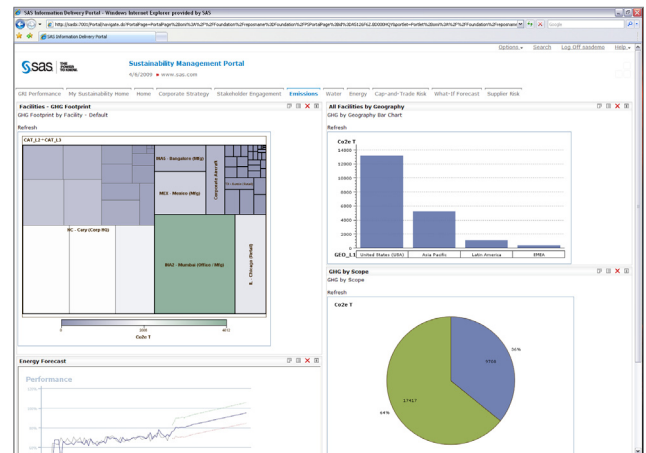
SAS for Sustainability Management is designed to access, integrate, analyze and manage data related to the three pillars of sustainability – economic, social and environmental – in a comprehensive framework. Aside from routine financial information, there is increasing scrutiny on environmental performance – energy, waste, water and emissions. Understanding your organization’s performance in these areas is a necessary knowledge asset and increasingly a determinant of competitive differentiation in the market.

SAS for Sustainability Management provides users with the most current reporting standards and carbon accounting protocols. It can also be customized to meet any organization-specific standards or adapted to emerging new requirements.

SAS offers deep industry expertise in performance management, optimization and modeling. The analytical capabilities of this solution provide fundamental financial decision support for prioritizing your sustainability investments. Maximize your savings on electricity and fuel costs with



Performance management dashboard with integrated business intelligence for data exploration, reporting and analysis.

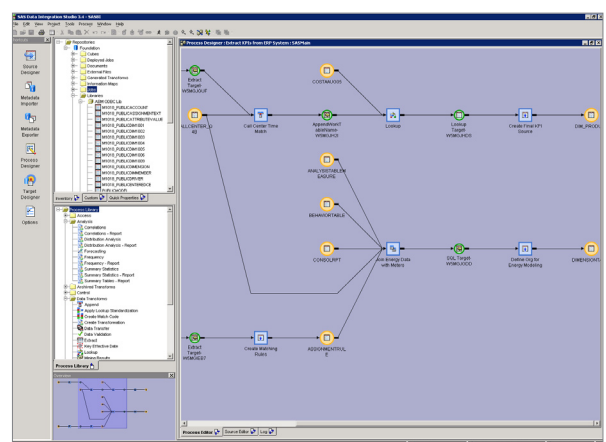


User-customized portals provide detailed information about GHG emissions over time.

The screenshot shows the 'Data Entry' screen for 'Building Measures'. It includes a table with the following data:

Element Label	Actual 2005	Actual 2006	Target 2005	Target 2006
Total energy use	120.6	143.4		160
Energy intensity	5.38	5.38		6
Upstream processed volumes and gross production	12.9	18.2		20
Downstream production	9.5	8.5		10
Total upstream and downstream production	22.4	26.6		30
Greenhouse gas (GHG)	9742	8376		12000
GHG emission intensity	0.44	0.43		0.4
Sulphur dioxide	33.3	31.3		45
Sulphur dioxide emission intensity	1.48	1.18		2
Nitrogen oxides	20.7	20.8		45

Web data entry.



Automated data entry.

industry-leading analytics that employ integrated forecasting, simulation and correlation analysis for superior predictions. Conduct scenario planning to evaluate the impact of alternatives on your top-line revenues and bottom-line costs. In addition, users get to take advantage of full integration with the SAS Business Analytics Framework including what-if scenario analysis, business intelligence, integration with MS Office applications and award-winning data integration.

With predefined sustainability performance management frameworks, including the Global Reporting Initiative (GRI), you know where you stand today relative to your goals. With this transparency, organizations can communicate and manage performance throughout the enterprise and identify strategies for minimizing risks and costs and improving resource use. Organizations facing increasing scrutiny from regulators, media and shareholders are using SAS for Sustainability Management to help prevent costly fines and protect their brand.

In this quickly evolving market, your organization can rely on SAS, a stable provider of software solutions used in more than 45,000 customer sites around the world. No other vendor can match the breadth of the SAS offering in both value and capability.

## Key features

### **Easy-to-use business intelligence for detailed reporting with integrated advanced analytics:**

- Web-based reporting, analysis and deployment.
- Built-in forecasting, statistical correlation procedures and predictive analytics.
- Animated data visualization.

### **Dynamic performance management:**

- Establish a common measurement framework using the Global Reporting Initiative, industry-specific guidelines or your organization-specific performance indicators.
- Dashboard speedometers and other customized images signal KPI status with multiple thresholds or range values. Users design or select existing dashboards through a simple Web interface.
- Drill-down capability for any element in the interface to investigate problems; link to documents such as reports and spreadsheets.
- User-customizable alerts; user subscription to alerts based on personal thresholds.
- Display any time period for any metric type (actual, target, status) and choose to display values, colors, range icons or descriptive text.
- Create strategy maps and process flows using a diagram editor that reads from and writes to the underlying database dynamically.

### **Flexible and scalable GhG modeling:**

- Baseline current emissions using Greenhouse Gas Protocol carbon accounting standard.
- Dimensional modeling and analysis:
  - o Define analysis parameters with time periods and scenario combinations.
  - o Analyze results with multidimensional views in user-friendly OLAP capability.
- Intuitive modeling user interface provides wizards with step-by-step guidance on building GhG models and a workspace to manage and save reports and views for others to access.
- Push any calculated result (emissions by facility, scope 3 impact of business unit travel, etc.) to the overall performance management dashboard for ongoing monitoring and management.

### **Data integration:**

- Ability to read from and write to nearly any data on any technology platform in batch and real time, including Excel, Oracle, DB2, SAP and legacy systems.
- Automated and repeatable process for migrating volumes of data into and from GhG models.
- Embedded data quality processes.
- Data warehousing or data mart capability.

### **Security and role-based authorization:**

- Security permissions for specific elements or rows, as well as templates, projects and scorecards.
- Assignable user roles that determine which actions a user can take.

## Technical requirements

### Client Tier

- Operating systems:
  - Windows XP Professional SP2.
  - Windows 2000 SP3.
- Minimum processor speed:
  - GHz processor (3.0 GHz recommended).
- Memory requirements:
  - 512 MB RAM (1 GB recommended).
- Disk space required:
  - 2 GB available disk space.
- Additional software required:
  - Microsoft Internet Explorer, version 6.0 or later.

### Middle Tier

- Windows operating systems:
  - Windows 2000 Server or Advanced Server with Service Pack 3.
  - Windows 2003 Server, Enterprise Edition.
- UNIX operating systems:
  - AIX, release 5.2 or 5.3.
  - Solaris 10 on SPARC.

### Server / Data Tier

- Operating systems:
  - Windows 2000 Server or Advanced Server with Service Pack 3.
  - Windows 2003 Server, Enterprise Edition (Windows 2003 Server Enterprise Edition is required to use more than 4 processors).

### Additional Software Required

- Microsoft Windows Script containing Visual Basic Script Edition (VBScript) Version 5.6.
- JScript Version 5.6.
- Windows Script Components.
- Windows Script Host 5.6.
- Windows Script Runtime Version 5.6.
- Microsoft Software Update for Web Folders: <http://support.microsoft.com/default.aspx?scid=kb;en-us;892211>.
- Required SAS software: Base SAS, SAS/ACCESS® for OLE DB, SAS/GRAPH®, SAS (included in SAS package).
- Microsoft Internet Explorer 5.5 SP2 (IE 6.0 recommended).
- Microsoft Internet Information Services 5.x (6.x recommended).

### Database Server Required

- Oracle or Microsoft SQL Server.

### Web Server – Additional Software Required

- J2SDK: 1.4.2\_15 (Sun).
- BEA WebLogic 8.1 with Service Pack 6 (Windows and UNIX Sun Solaris installations).
- WebSphere Application Server Version 6.0 with cumulative fix 5 (6.0.2.19) (UNIX AIX installations).

## About SAS

SAS is the leader in [business analytics](#) software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions delivered within an integrated framework, SAS helps customers at 45,000 sites improve performance and deliver value by making better decisions faster. Since 1976, SAS has been giving customers around the world THE POWER TO KNOW®.

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