



SERAM

Sustainable Enterprise Reporting And Management

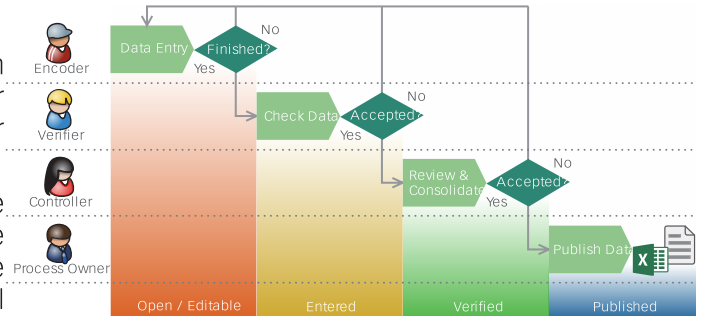
SERAM helps companies collect and manage their key performance indicators, including CSR and EHS performance data.

SERAM (Sustainable Enterprise Reporting And Management) from Sirius Technologies AG is a software tool that enables companies to collect and report upon their sustainability performance. This includes topics like health and safety, waste, CO₂ and other air emissions, water consumption and pollution, energy use, gender and race diversity, child labor, human rights, fraud and corruption cases, investment in the community and many others. In essence, the software allows companies to collect all the time-based data they would usually put into their Corporate Social Responsibility reports and other external reports such as GRI, DJSI and FTSE4good.

Workflow

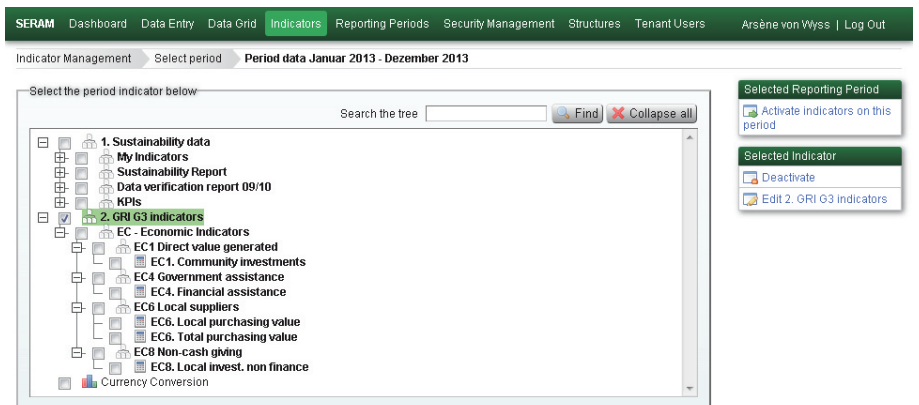
The software follows a role-based workflow where each user has specific permissions within the system. The user will only see the parts of the system to which his or her roles grant access to.

Several roles can be allocated to users and these determine which step(s) of the reporting process they are involved in. Business locations and data points can be allocated to users both individually and in groups across all levels of the organization and indicators structures. Roles are customizable and multiple roles can be assigned to individuals, for example in small locations or companies.



Configuration and Datasets

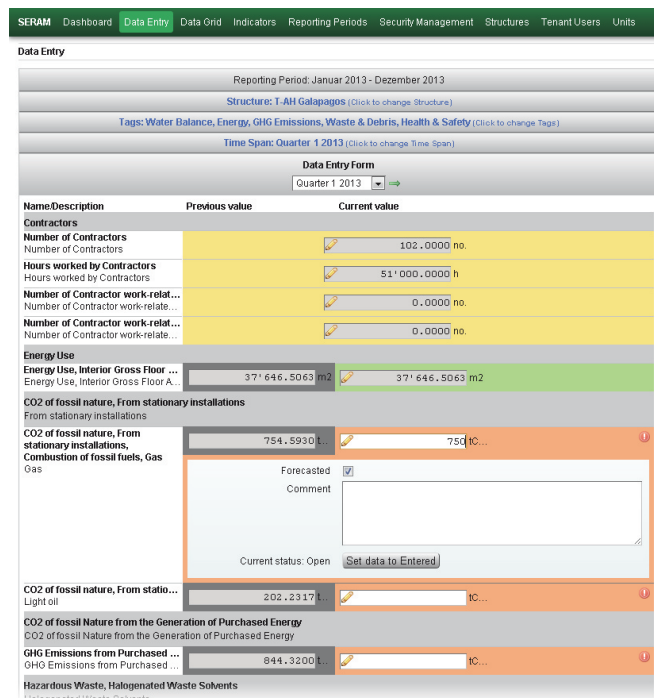
The input indicators vary for each industry and company, even if the company reports according to standards such as GRI, DJSI, FTSE4good and GHG protocol. SERAM is fully customizable to address this need by allowing sophisticated data consolidation and computation based on the input indicators, thereby enabling multiple outputs with a single input data set.



As organizations evolve, SERAM can be updated to reflect these changes while keeping the entire structural history. However, SERAM allows the definition of arbitrary structures such as regions for emission factors, site types, financials etc. which are linked to the organization structures. These links allow powerful data sharing, for instance for currency exchange rates, emission and conversion factors, etc..

Through the administrative user interface, the customer has complete control over these structures as well as the indicator definitions and roles/permissions assigned to locations and/or users.

Data Entry



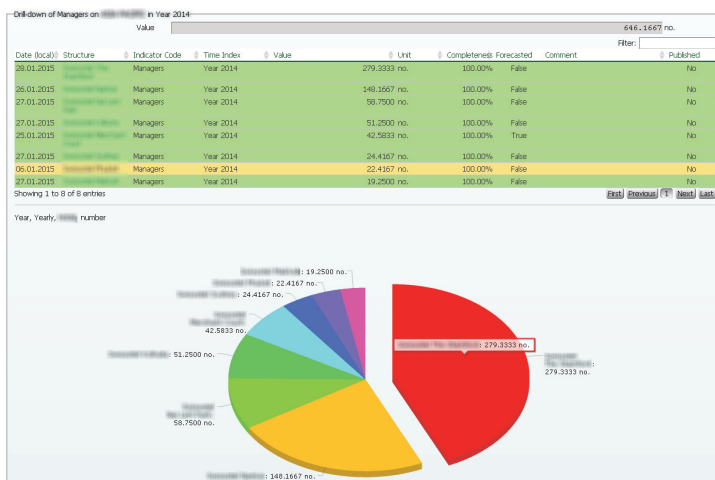
Users who have the necessary permissions can enter data into SERAM using any modern device with internet access. After log-on, the normal Data Recorder user is presented with a To-Do-list containing direct links to the input form. This guided approach with the fool-proof interface for collecting data is ideal for casual and novice users. Detailed guidance is available on-screen for each indicator. Users can enter data in their local data formats for numbers and dates and using their local input units e.g. currencies, measurements etc.. These are automatically converted to the corporate standard unit for company level reporting. Each value can be annotated with metadata such as comments, forecast flags or data quality.

The data fields are color-coded throughout the application to indicate the stage of the workflow process they are in, such as open, entered and verified. There are further guides available to users, such as constraints (e.g. value cannot be negative) or plausibility checks (e.g. when the value deviates significantly from a defined rule such as a percentage of the previous value).

Data and Process Analysis

Besides the guided process for entering data, SERAM has a powerful Data Grid which has a structure similar to a spreadsheet. Advanced users have a high level of analytical functionality available, of both the data entered and the progress of data entry and validation, and they can also use the Data Grid to make modifications to the data with sufficient permissions.

The Data Grid allows looking at the collected data from a variety of ways. First the user has to make a selection of structures, indicators, time and method to display, thereby defining a very specific view to the data to be analyzed. The axes can be changed dynamically to enable a perfect view on the selected data. It's easy to review data, comparing it with previous years, other locations and targets. Also, data can be retrieved and analyzed from different perspectives, for instance by country or by any other structure type, and what-if-scenarios can be built where not all structures are taken into account during consolidation.



Saved Selections

The selections and settings made in the Data Grid can be saved and shared. Since this only saves the selection but not the data, it allows to build templates for quick access to frequently used data views, for instance for a specific report. Also, sharing will automatically share the selection only with users for which the selection is meaningful.

Export, Data Exchange and Reports

SERAM has different types of exports. One is a direct export of the Data Grid to an Excel spreadsheet. It exactly mirrors the view shown in the spreadsheet-like Data Grid view of the system and allows further processing. It is also possible to export the input values to either Excel or XML files. These files can be edited off-line and then imported back into SERAM, including metadata such as comments.

Furthermore, SERAM provides a REST interface for programmatic access to the data, for instance for automated interfaces writing data to SERAM.

The reporting module of SERAM allows to build report definitions which can later be executed. These definitions are very flexible in that they can use variables to load and process arbitrary data.

Formulas can be used in various places to make parts conditional or customize the generated output. The report output format is Microsoft Word documents (DOCX) which may contain text with footnotes, charts, tables, TOC etc..

Hosting and availability

SERAM is offered under two hosting models: One is Software as a Service (SaaS), which means that the software is stored and operated on Sirius' servers exclusively in high-availability, banking-level Swiss data centers. The second option is to host the software on premise by the customer in their IT environment. Users always access the software through their web browser. The service utilizes today's most reliable and up-to-date security technology to ensure best data protection. All maintenance and feature upgrades are included in the license fee.

We look forward to help you with your data collection and analysis challenges!

SERAM Dashboard Data Entry Data Grid Indicators Reporting Periods Security Management Structures Tenant Users Units				
Data Grid				
GHG	Year 2011		Year 2012	
	T-AH Galapagos		T-AH Galapagos	
Scope 1 GHG Emissions	3'310.2808 tCO2e		3'397.3318 tCO2e	
CO2 of fossil nature	3'310.2808 tCO2e		3'397.3318 tCO2e	
CO2 of fossil nature, From stationary install...	3'115.1008 tCO2e		3'178.9118 tCO2e	
CO2 of fossil nature, From stationary install...	1'874.6838 tCO2e		2'507.0263 tCO2e	
CO2 of fossil nature, From stationary install...	1'240.5970 tCO2e		820.3147 tCO2e	
CO2 of fossil nature, From company owned/...	195.1800 tCO2e		218.4200 tCO2e	
Scope 1 GHG Number of Vehicles	42.0000 no.		47.0000 no.	
Number of Vehicles, Airplanes				
Number of Vehicles, Passenger cars	42.0000 no.		47.0000 no.	
Number of Vehicles, Trucks, buses and other v...				
Scope 1 GHG Emissions (without vehicles)	3'115.1008 tCO2e		3'178.9118 tCO2e	
Scope 2 GHG Emissions	3'618.1500 tCO2e		3'469.6200 tCO2e	
CO2 of fossil Nature from the Generation of Pu...	3'618.1500 tCO2e		3'469.6200 tCO2e	
GHG Emissions from Purchased Electricity	3'618.1500 tCO2e		3'469.6200 tCO2e	
GHG Emissions from other Purchased Energy				
GHG Emissions from Purchased Steam				
GHG Emission not covered by the Kyoto Protocol	0.0000 tCO2e		0.0000 tCO2e	
GHG Emission not covered by the Kyoto Proto...				
GHG Emission not covered by the Kyoto Proto...				
GHG Emission not covered by the Kyoto Proto...	0.0000 tCO2e		0.0000 tCO2e	
CO2 captured by sequestration				

Further there are different charts available for visualizing data loaded in the grid. Computed and consolidated values can be dissected with the drill-down functionality. The system automatically renders charts during drill-down to visualize the components contributing to the result, thereby making outliers apparent. The drill-down can be repeated until the user hits the values actually entered in the system. For each entered value, a complete change history with a time-value-chart can be inspected, and the system can also search for values which have been restated (e.g. values which have been reset to the open workflow state at some time).

SERAM Data Grid Export				
Indicator	Year 2011		Year 2012	
	T-AH Galapagos		T-AH Galapagos	
Scope 1 GHG Emissions	3'310.2808 tCO2e		3'397.3318 tCO2e	750.0000 tCO2e
CO2 of fossil nature	3'310.2808 tCO2e		3'397.3318 tCO2e	750.0000 tCO2e
CO2 of fossil nature, From stationary installa...	3'115.1008 tCO2e		3'178.9118 tCO2e	750.0000 tCO2e
CO2 of fossil nature, From stationary installa...	1'874.6838 tCO2e		2'507.0263 tCO2e	750.0000 tCO2e
CO2 of fossil nature, From stationary installa...	1'240.4170 tCO2e		820.3147 tCO2e	750.0000 tCO2e
CO2 of fossil nature, From company owned/...	195.1800 tCO2e		218.4200 tCO2e	System driven by 47 cars with an average fuel consumption of 10 litres per 100km. The fleet will be replaced with fuel efficient diesel vehicles next year.
Scope 1 GHG Number of Vehicles	42.0000 no.		47.0000 no.	
Number of Vehicles, Airplanes				
Number of Vehicles, Passenger cars	42.0000 no.		47.0000 no.	
Number of Vehicles, Trucks, buses and other vehicles				
Scope 1 GHG Emissions (without vehicles)	3'115.1008 tCO2e		3'178.9118 tCO2e	750.0000 tCO2e
Scope 2 GHG Emissions	3'618.1500 tCO2e		3'469.6200 tCO2e	750.0000 tCO2e
CO2 of fossil Nature from the Generation of Pur...	3'618.1500 tCO2e		3'469.6200 tCO2e	750.0000 tCO2e
GHG Emissions from Purchased Electricity	3'618.1500 tCO2e		3'469.6200 tCO2e	750.0000 tCO2e
GHG Emissions from other Purchased Energy				
GHG Emissions from Purchased Steam				
GHG Emission not covered by the Kyoto Protocol	0.0000 tCO2e		0.0000 tCO2e	21.6000 tCO2e

SERAM Success Story

Novartis

Novartis International AG, a SERAM client, was the 2008/09 Dow Jones Sustainability Index Super-Sector Leader for healthcare companies.

Novartis uses the SERAM system to manage its environment, health and safety performance. The award is the second time that Novartis has been super-sector leader in the last three years. With high scores in each of the three categories (Economic, Environment, Social) the scores of 100% for both Environmental Performance and Environmental Reporting are particularly impressive.

Sirius Technologies AG is a Swiss company focusing on sustainability software solutions. Sirius has been in business for over 20 years and successfully provides software and services to some of the world's largest companies in over 90 countries.

Sirius Technologies AG

Milieu du Village 27
2762 Roches BE
Switzerland

Tel: +41 61 375 75 75



SERAM Information

<https://www.seram.ch>

[email:info@seram.ch](mailto:info@seram.ch)

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