LOGICAL SYSTEMS
AUTOMATION & INTEGRATION SERVICES



“Our auditors used to get a spreadsheet. Now they get the meter reading behind every tonne.”
EHS & Sustainability Director, Food & Beverage Manufacturer

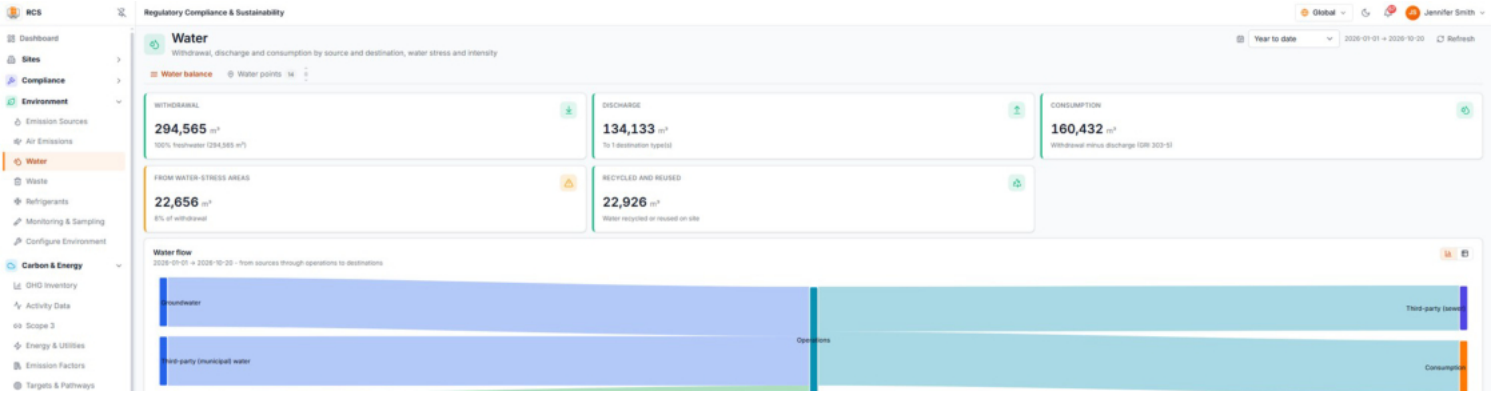
DATASHEET

Regulatory Compliance & Sustainability

From Plant Floor Data to Audit-Ready Disclosure

Compliance and sustainability reporting obligations are multiplying faster than the systems meant to handle them: CSRD/ESRS and IFRS S2 disclosures, California SB 253, CBAM, EUDR, Seveso III, EPCRA, GHG Protocol inventories, permit limits, chemical regulations and safety recordkeeping. In most plants the answers live in disconnected spreadsheets, consultant tools and paper binders, assembled once a year, far away from the meters, tags and processes that generate the actual data. When the auditor asks where a number came from, the trail goes cold.

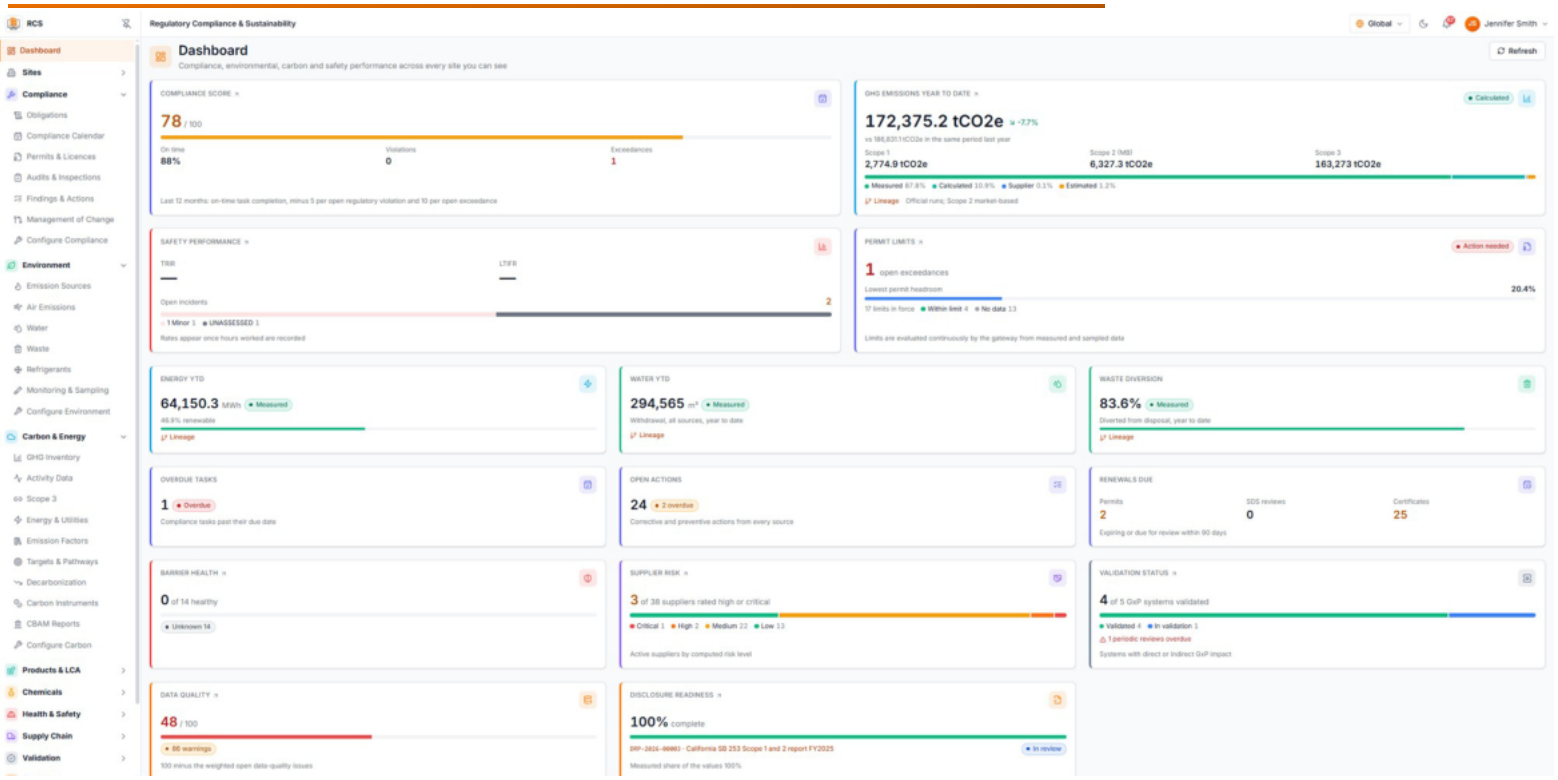
The LOGICAL SYSTEMS Regulatory Compliance & Sustainability (RCS) application closes that gap at the source. Running natively on the Inductive Automation® Ignition platform, RCS collects activity data straight from your plant floor. Readings from energy meters, flow meters, analyzers and production counters arrive through tags, while utility invoices, lab results and supplier data arrive through import and REST, and every value carries its quality class and evidence. An auditable calculation engine turns that data into a GHG Protocol / ISO 14064-1 inventory through immutable official runs, so every tonne of CO_2e is traceable to its tag, meter, file or manual entry.



RCS is not just carbon accounting. Nine integrated pillars cover the full compliance and sustainability scope of a manufacturing site: regulatory obligations, permits and audits; air, water, waste and refrigerants; carbon and energy; product footprints and LCA; chemical compliance; health and safety; supply chain due diligence; computerized system validation; and framework disclosure from double materiality to Inline XBRL output. One metric catalog feeds every framework. Compute a figure once and disclose it under ESRS, GRI, ISSB or SB 253 without rework. Everything runs under enterprise governance: versioned workflows, electronic signatures per 21 CFR Part 11 / EU GMP Annex 11, a full audit trail, period locks with signed restatements, and evidence packs ready for assurance. Multi-site estates deploy a Global instance with autonomous site instances that keep working offline and synchronize over the standard Ignition Gateway Network. Your compliance system stays on your infrastructure, next to your process.

Nine Pillars, One Source of Truth

Compliance, EHS, Carbon and Disclosure in One Application



Nine Pillars on One Platform

RCS covers the full compliance and sustainability scope of your sites:

Compliance obligations, compliance calendar, permits and licenses with live limit monitoring, audits, findings and actions, management of change.

Environment air, water, waste and refrigerants, with monitoring points, sampling plans and lab results against permit limits.

Carbon & Energy Scope 1, 2 and 3 inventory per GHG Protocol / ISO 14064-1, cited factor library, SBTi targets, decarbonization, CBAM.

Products & LCA ISO 14067 / PACT footprints per batch, ISO 14040/14044 studies, EN 15804+A2, EPDs.

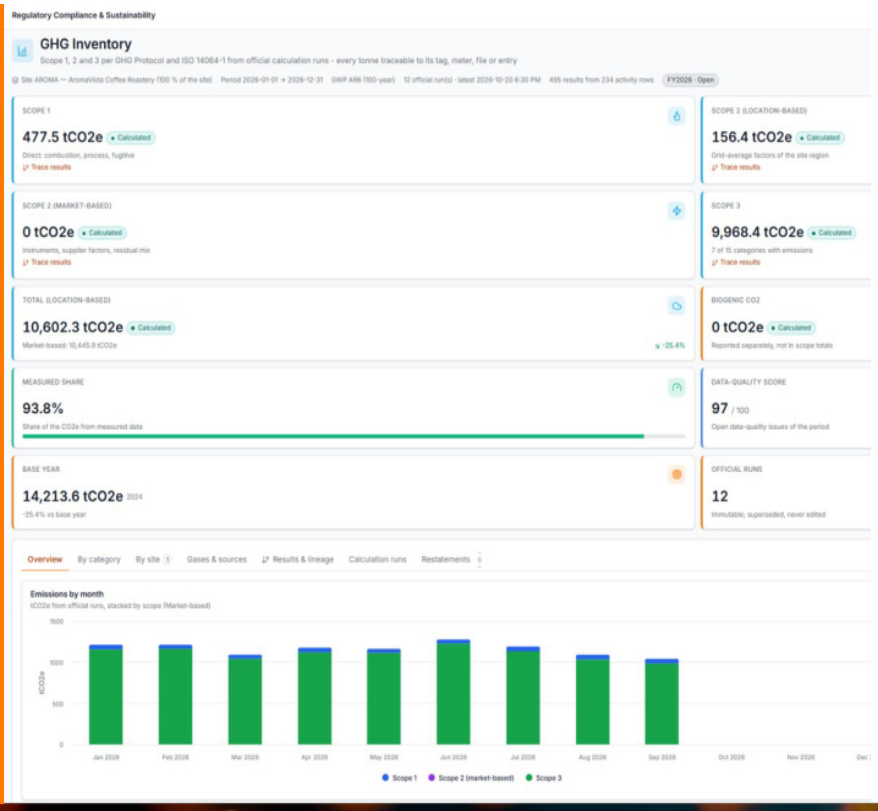
Chemicals substances, SDS library, REACH SVHC / Prop 65 / RoHS screening, approvals, Seveso III / EPCRA / TRI thresholds.

Health & Safety incidents, investigations, permits to work, risk assessments, exposure monitoring, live safety barriers, TRIR / LTIFR / DART.

Supply Chain supplier risk and assessments, PACT exchange, due diligence, EUDR traceability.

Validation GAMP 5 lifecycle, change control, ALCOA+ data integrity, audit trail reviews.

Reporting & Disclosure double materiality, ESRS / GRI / ISSB datapoints from one metric catalog, Inline XBRL, assurance.



One platform for every obligation

- One metric catalog feeds every framework: compute once, disclose everywhere.
- Activity data flows from tags, meters, files and suppliers with quality class and evidence.
- Official calculation runs are immutable; every tonne is traceable to its source.
- Electronic signatures, audit trail and period locks across all nine pillars.
- Sites keep working offline and synchronize when the link returns.
- Permit limits and thresholds evaluated live by the gateway, not at month end.
- One ISA-95 plant model shared by every register, from permits to footprints.
- Frameworks, emission factors and regulatory lists install as cited content packs.
- Evidence packs hand the auditor values, lineage and signatures in one ZIP.

From Measurement to Disclosure

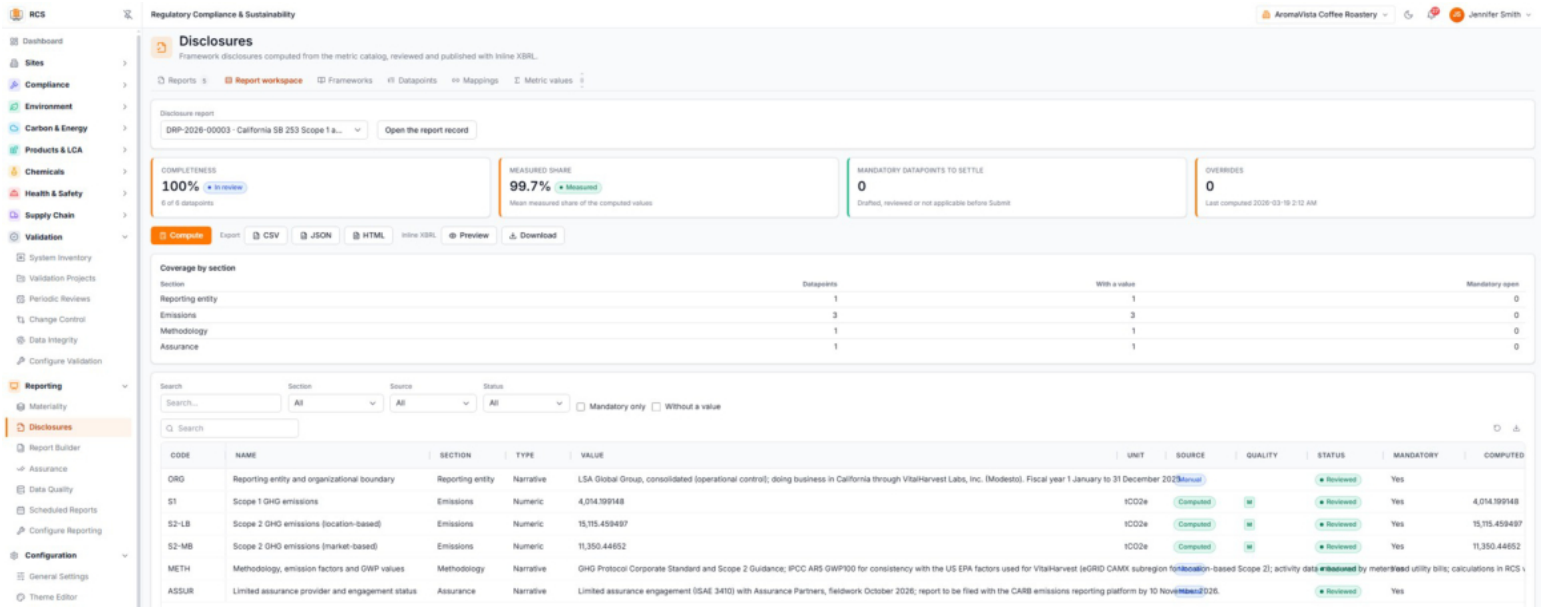
The Compliance Engine Running on Your Ignition Gateway

RCS starts where your data starts. Data collectors sample and totalize Ignition tags such as energy meters, flow meters, online analyzers and production counters, while REST collectors receive pushed readings from LS applications and external systems, and files, invoices and lab results are imported or entered with approval. Every value lands as activity data with a quality class (measured, calculated, estimated or supplier-provided) and its evidence attached, rolled up by period against completeness thresholds. Data quality rules covering completeness, range, outliers, staleness, duplicates, estimated share and missing evidence score every site continuously, so you see the measured share of every reported figure before an auditor asks.



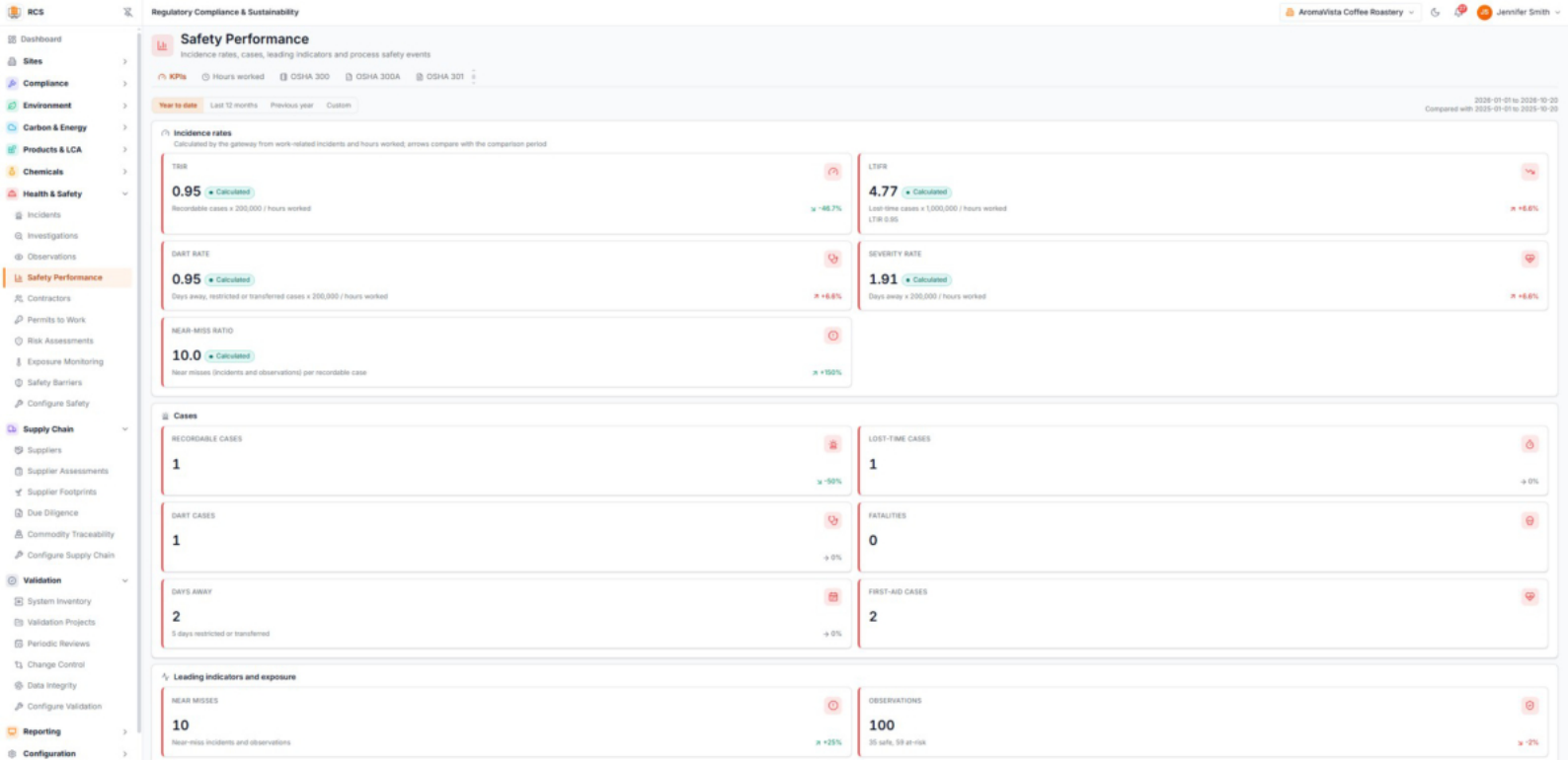
The calculation engine turns activity data into official results. Scheduled or on-demand runs resolve each activity against the active factor sets by priority, with every factor carrying its publisher citation and every GWP value its IPCC table, and write immutable, versioned results: superseded, never edited. The same engine evaluates permit limits continuously against measured and sampled data, forecasts when a rolling limit will be breached, and raises exceedances with regulator notification deadlines. The compliance calendar generates the monitoring, reporting, sampling, inspection and renewal tasks on schedule, and 25 alert types keep owners ahead of every expiry.

Every register runs on a versioned workflow state machine with per-transition permissions, guards and signature requirements. Electronic signatures per 21 CFR Part 11 / EU GMP Annex 11 carry a declared meaning (reviewed, approved, issued, locked) and bind to the record with a full audit trail behind them, including documented audit trail reviews. Reporting periods lock: a locked period refuses edits to its activity data, metric values and disclosure values except through a signed restatement. Assurance evidence packs bundle values, lineage, calculation results, signatures and audit extracts into a single ZIP, and auditor requests are tracked from question to accepted response.



Disclosure closes the loop: a double materiality assessment selects the topics, framework datapoints map once to the metric catalog, and each disclosure report computes its values with lineage, routes them through review and signed approval, and publishes as Inline XBRL, PDF, HTML, CSV or JSON. Frameworks install as versioned content packs (ESRS, GRI, ISSB, UK SECR, California SB 253 and more) alongside cited emission factor and regulatory list packs.

Multi-site estates run a Global instance with autonomous site instances: each gateway keeps a local, automatically migrated datastore, keeps collecting, calculating and alerting with the WAN down, and synchronizes over the standard Ignition Gateway Network when the link returns. An integration hub connects the LS suite (QMS, PLM, MM, EMS, OEE, TMS, WFM, WFX, SPC, LMS, CMMS, EAI) and ERP / LIMS systems, with a run log and a persistent event queue. With LS WFX, incidents, permits to work and hours worked stay in WFX and flow to RCS for reporting and disclosure.



Key Features and Benefits

Features

- Nine pillars: compliance, environment, carbon and energy, products and LCA, chemicals, health and safety, supply chain, validation, disclosure
- Tag, totalizer and REST collectors with evidence
- Immutable GHG calculation runs with full lineage (GHG Protocol / ISO 14064-1)
- Cited factor packs: IPCC, EPA, DESNZ; AR4/5/6 GWP
- Permit limits evaluated continuously with breach forecasting and exceedance workflow
- ISO 14067 / PACT footprints, LCA, EPDs
- REACH / Prop 65 / RoHS and Seveso / EPCRA / TRI
- Permits to work, exposure, live safety barriers
- Supplier assessments, due diligence, EUDR traceability
- GAMP 5 validation, ALCOA+, audit trail reviews
- Part 11 / Annex 11 signatures on versioned workflows
- One metric catalog, Inline XBRL and PDF output
- Period locks, evidence packs, auditor requests
- Global / site sync over the Ignition Gateway Network
- 19 interface languages, theme editor, custom fields

Benefits

- Replaces EHS tools, carbon spreadsheets, disclosure tooling
- Figures born on the plant floor: every number traceable to its tag, meter or file
- Audit prep in hours, not weeks
- Nothing expires silently: permits, SDS reviews, certificates, training
- Compliance proven continuously, not once a year
- Sites run autonomously, offline included
- Runs on your Ignition, data stays on premises
- Scales from one site to a global estate
- Data quality scored live, gaps visible before the period closes

Technical Requirements

System Requirements

Ignition® (8.1.+) Core Modules, Quad-core processor, 16 GB RAM, 10 GB free disk space

Supported Operating Systems

Windows Server 2019/2022/2025, Windows 10/11, macOS (X, 10.16+), Linux (Ubuntu, CentOS, RHEL)

Supported Protocols

MQTT, OPC UA / OPC DA, REST API (JSON Payloads)
Kafka (via connector), Snowflake (via pipeline, data bridge)

Supported Databases

Microsoft SQL Server, Oracle, MySQL, MariaDB, PostgreSQL, any database with JDBC driver

Supported Browsers

Chrome, Firefox, Safari, Microsoft Edge

LOGICAL SYSTEMS

RCS

Comply Continuously. Disclose with Confidence.

Regulations will keep multiplying, but your data entry should not. LOGICAL SYSTEMS RCS turns the data your plant already produces into a continuously audited compliance record and audit ready disclosures, from a single meter reading to a signed sustainability statement.

LOGICAL SYSTEMS
AUTOMATION & INTEGRATION SERVICES
Specialists in Automation & Digitalization for Manufacturing Industries

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