



FICTITIOUS USE CASE: BERGSLAGEN SVETS & INDUSTRISERVICE AB, BORLÄNGE

A Swedish SME in the supply chain of a major steel producer

"The Sustainability data SMEs need already exists - they just need access to it."



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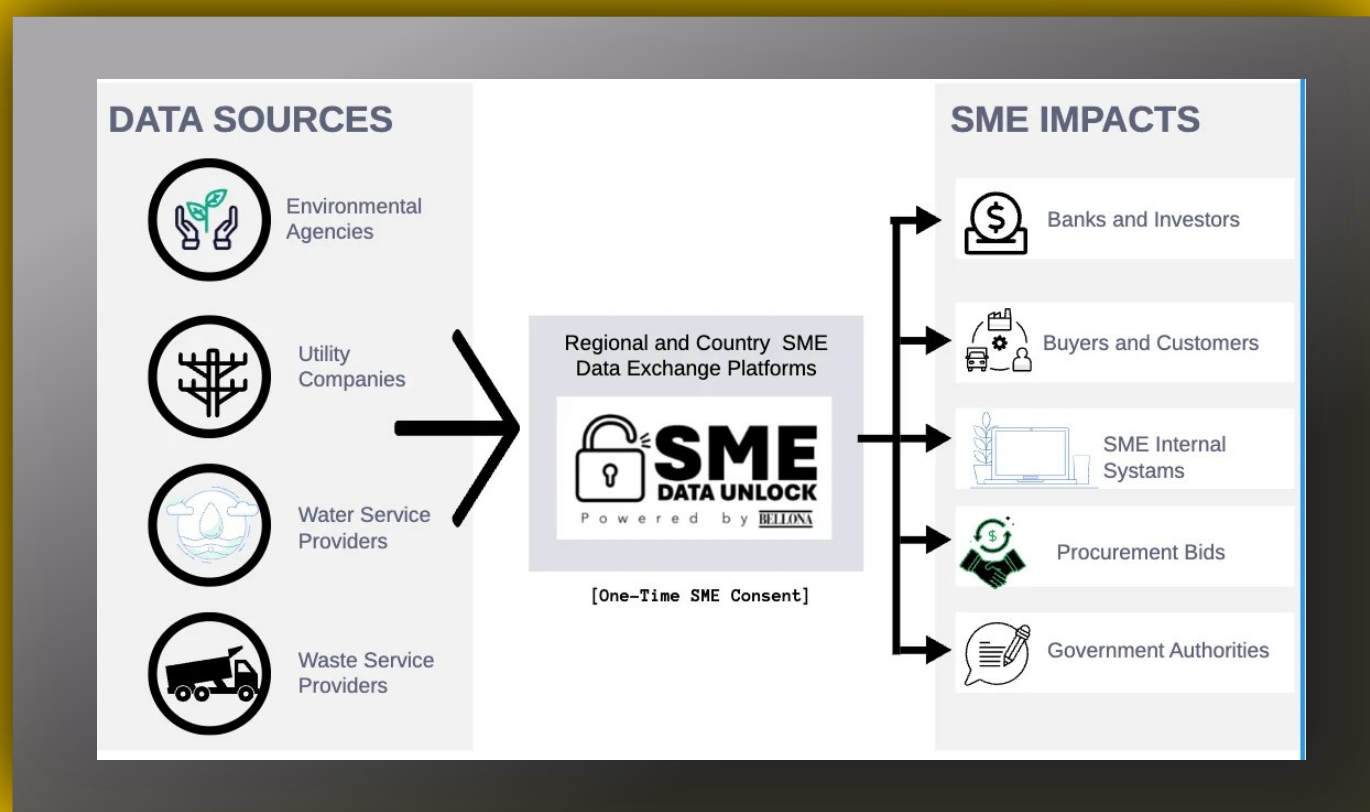
Introduction to the SME Data Unlock Use Case

In the current data-driven economy, the demanding environment of the real economy, Small and Medium-sized Enterprises (SMEs) are increasingly caught in a regulatory data storm. As strict sustainability reporting frameworks cascade downstream, small businesses face intensive data demands from operators, banks, and regulators—including multi-page questionnaires, green-loan criteria, and voluntary standards.

The critical challenge for these companies is not a lack of capacity or negligence, but a fragmented data infrastructure problem. The sustainability data these companies are desperately hunting for—ranging from hourly energy consumption to regional flood risks and waste tracking—already exists. However, it remains trapped across disparate public-sector registries, government repositories, and utility systems that do not communicate with one another. Manual data collection imposes a massive, error-prone administrative burden on small teams lacking dedicated sustainability departments. Using the concrete operational realities of the Norwegian offshore supply chain as a primary framework, this use case demonstrates how structural data barriers actively stall climate transparency and green investment—and precisely how a unified data highway can solve it.

About SME Data Unlock

SME Data Unlock is an open, collaborative global initiative designed to bridge the persistent data gap preventing SMEs from fully participating in the green transition. Rather than acting as a software product or a consulting service, the initiative operates as a proposal to treat sustainability data as vital digital public infrastructure. By bringing together public and private stakeholders, SME Data Unlock focuses on developing AI-powered SME Data Exchange Platforms. The initiative leverages an open-source, AI-powered taxonomy-mapping platform combined with a secure, consent-driven data-sharing trust framework.



Through a single, secure interaction tied to existing digital identity networks, businesses can instantly authorize the automated retrieval of their existing data. SME Data Unlock automatically **maps** fragmented outputs into standardized, machine-readable formats (such as XBRL).

WHY

The SME Sustainability Data Crisis

Across the globe, SMEs form the backbone of economies and make up more than 90% of all businesses, yet they face serious barriers to accessing the sustainability data they need. As a result of new global regulations, green market and finance policies, SMEs are facing myriad data requests, each structured differently. Yet, they can't access the data because it is siloed and fragmented, and the cost and time burden of compliance is too high.

Despite efforts to support SMEs by international, regional, and country-level institutions, SMEs continue to lack the resources, expertise, and tools they need to meet data demands from customers, regulators, and financial institutions, as well as procurement requirements. The key sustainability data SME's need is in public and regulated systems, but they can't access it. As a result, they are at increasing risk of losing their place in critical value chains and often choose not to participate in green lending and finance programs.



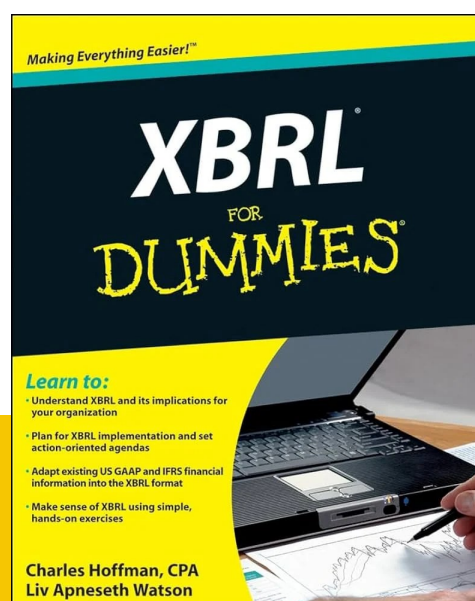
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Using the concrete operational realities of the Swedish steel supply chain as its framework, this use case demonstrates how structural data barriers actively stall climate transparency and green investment — and precisely how a unified data highway can solve it. Sweden is a particularly significant setting: it is home to the world's most ambitious fossil-free steel transition, and the data demands of that transition are landing, today, on the desks of the small companies that keep its steel mills running.

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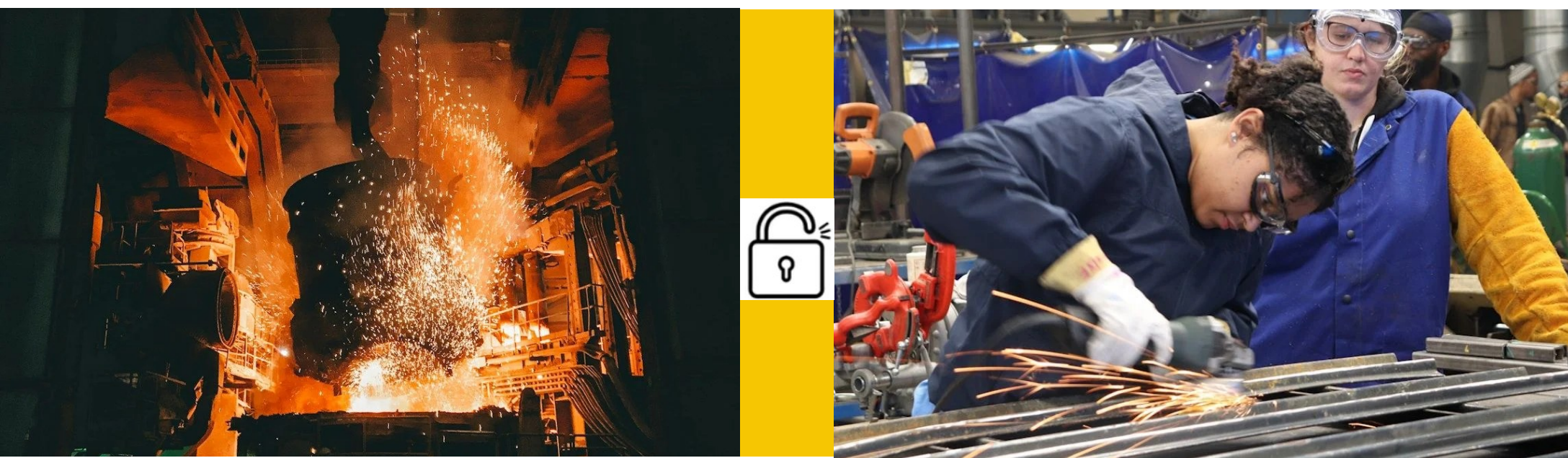


Introduction

Sweden's steel industry is one of the most advanced in the world — and one of the most consequential for Europe's green transition. The mills in Borlänge, Oxelösund, and Luleå, and the new fossil-free steel ventures in Norrbotten, sit at the center of the EU's industrial decarbonization strategy. But the companies that keep these mills running — welders, industrial maintenance firms, machining shops, surface-treatment specialists, logistics providers, and scaffolding and insulation contractors — are overwhelmingly SMEs. They are also increasingly caught in a regulatory data storm not of their making.

Sustainability reporting is not a capacity problem. It is a data infrastructure problem.

The story of Bergslagen Svets & Industriservice illustrates that the pressure bearing down on steel supply-chain SMEs is not a consequence of their own complexity or negligence. It is the downstream manifestation of an upstream regulatory architecture — CSRD, CBAM, the EU ETS, banking supervision — that has outpaced the data systems designed to serve it. The data these companies need to report already exists, in government registries, permit databases, grid company systems, and waste registers. It is simply not accessible in the standardized, machine-readable formats that reporting frameworks now demand.

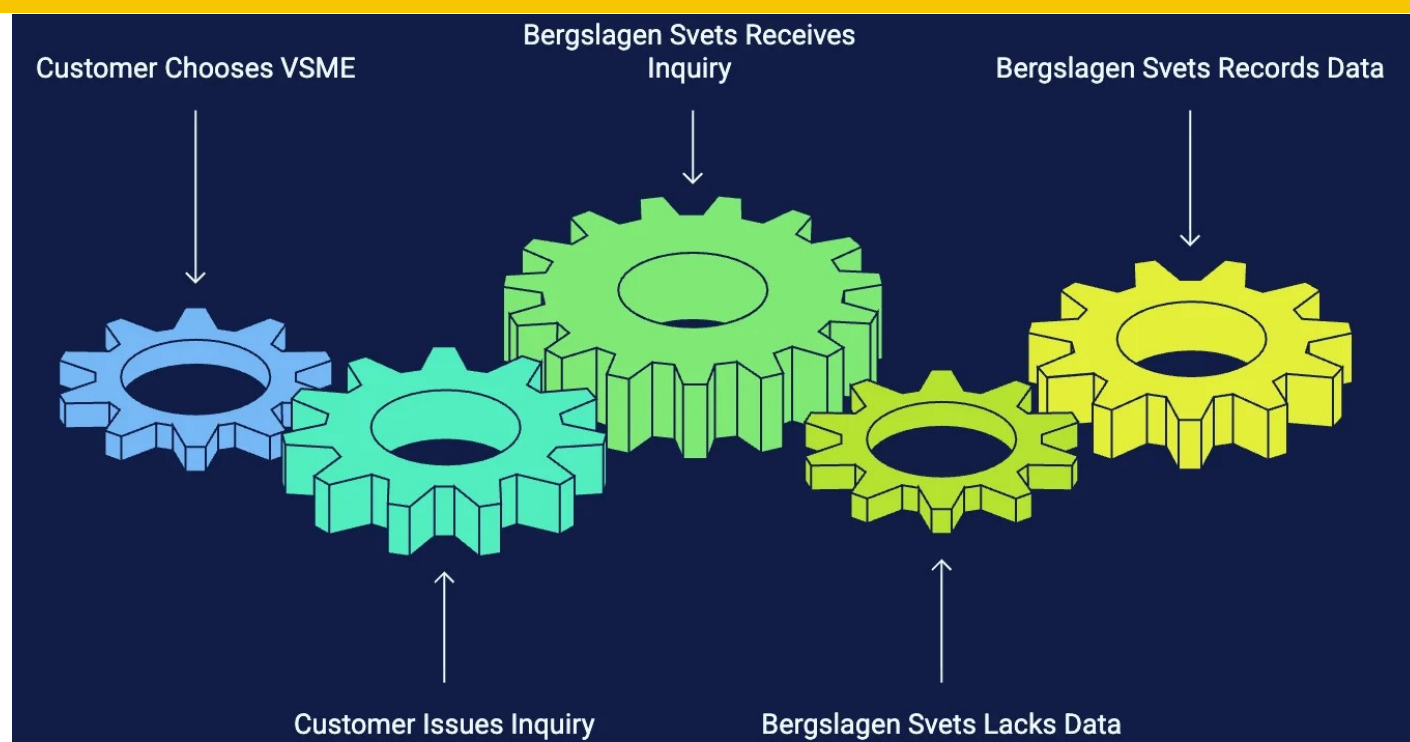


About Bergslagen Svets & Industriservice AB

Lars Ekström is the managing director of Bergslagen Svets & Industriservice AB, a fictitious 36-person welding and industrial maintenance firm based in Borlänge, Dalarna. The company provides certified welding, structural repairs, shutdown maintenance, and fabrication services to a major Swedish steel producer's Borlänge rolling mill, as well as to a portfolio of regional industrial clients. Under Lars's leadership, the company has built a reputation for precision and reliability, earning a long-term framework agreement with the steel producer and ISO 3834 (welding quality) and ISO 9001 certifications.

The company employs a mix of certified welders, fitters, maintenance technicians, and project leaders. It operates a workshop and fabrication hall on an industrial estate outside Borlänge, a fleet of service vans and two trucks, a diesel-powered mobile generator and compressor units for on-site work, and uses a steady stream of consumables — welding gases, filler materials, abrasives, hydraulic fluids, and surface-treatment chemicals. By any ordinary measure, Bergslagen Svets & Industriservice is a well-run, technically competent Swedish SME.

In May 2026, three separate reporting demands landed on Lars Ekström's desk within ten days.



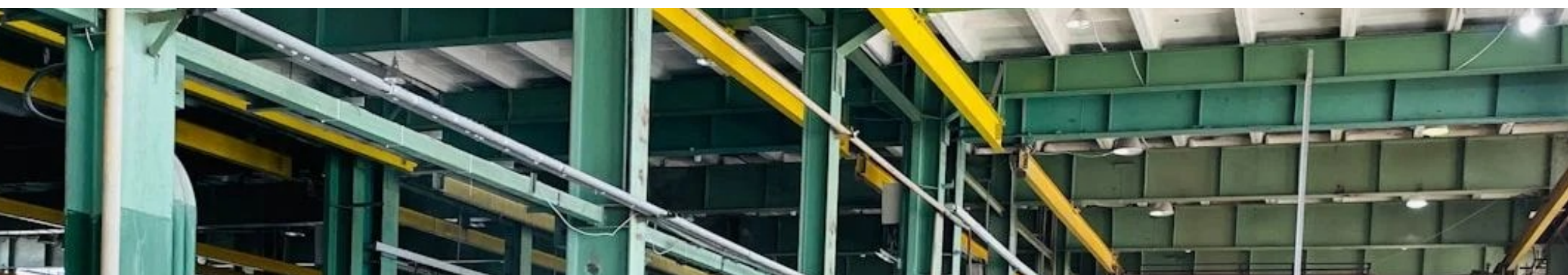
Three Requests in Ten Days

The first demand: the steel producer

The first demand came from the steel producer's procurement organisation as part of its annual supplier sustainability review. As a company well above the revised CSRD thresholds — 1,000 employees and €450 million in turnover, set by the EU Omnibus I package of March 2026 — the producer must account for material impacts across its entire value chain, including Scope 3 emissions from its contractor base. Its position is further sharpened by its fossil-free steel commitments: customers buying low-carbon steel demand credible product carbon footprints, and the EU's Carbon Border Adjustment Mechanism (CBAM) has made embedded emissions in steel a board-level commercial issue. Every kilogram of CO₂ in the value chain — including the contractors working inside the mill fence — now has a price and a reporting trail.

The questionnaire sent to Bergslagen Svets runs to 41 pages. It asks for Scope 1 emissions from the company's vehicle fleet, mobile generator, and welding-gas consumption; Scope 2 emissions from purchased electricity at the Borlänge workshop, including guarantee-of-origin status; Scope 3 Category 1 data on the carbon footprint of filler materials, gases, and chemicals used in fabrication; waste generated by stream in tons, including hazardous waste handling under the Swedish waste ordinance; water consumption; and a description of the company's safety and environmental management system, with reference to its permit and inspection history.

Failure to respond risks removal from the framework agreement.



Use Case: Bergslagen Svets & Industriservice AB, Borlänge

The second demand: Handelsbanken

The second demand arrives from the company's bank. Handelsbanken is offering a preferential green financing facility to support the purchase of a new fibre-laser cutting line and energy-efficient welding equipment — a significant capital investment that would cut the workshop's electricity intensity and eliminate most of its plasma-cutting consumables. The green loan application requires documented Scope 1 and Scope 2 emissions baselines, evidence of the company's existing energy consumption profile, and a forward-looking assessment of how the new equipment will reduce operational carbon intensity. The application also asks whether the company's workshop — situated near the Dalälven river system — is exposed to fluvial flood risk under a 10-year climate scenario, a requirement that traces back to the European Banking Authority's ESG risk guidelines, which entered into force in January 2026

The third demand: a mid-sized engineering customer

The third request reached Bergslagen Svets through a more circuitous route. One of its smaller clients, a mid-sized engineering firm in the 250-to-500-employee bracket — technically exempt from the updated CSRD mandates — has chosen to implement the EFRAG Voluntary SME Standard (VSME) to meet its investors' demands. Its ESG lead has issued a supplier data inquiry following the VSME structure. While the VSME is intended to be streamlined and less burdensome, it still requires organized, quantitative data on energy intensity, greenhouse gas emissions, and waste protocols — metrics that Bergslagen Svets has never systematically recorded.

None of the three requests references the others. None uses the same definitions, reference periods, or data formats. Each is, strictly speaking, manageable in isolation. Collectively, they represent a systemic burden for a 36-person company with no dedicated sustainability function.



The Upstream Regulatory Stack

Lars passes the stack of documents to his quality and HSE coordinator, Karin Lindqvist. She is competent and conscientious — fully qualified in welding coordination under ISO 3834, fluent in the steel producer's contractor safety systems, and experienced with Arbetsmiljöverket's requirements. She has, however, never encountered the phrase 'Scope 3 Category 1 purchased goods and services.' She opens a spreadsheet and begins.

None of Bergslagen Svets' counterparts is acting arbitrarily. Each is responding rationally to obligations embedded in a layered regulatory structure.

The steel producer's supply chain requirements

These stem from multiple intersecting obligations. As a company well above the revised CSRD thresholds, the producer must publish a comprehensive sustainability report covering material environmental impacts across its value chain, prepared under the European Sustainability Reporting Standards as implemented in the Swedish Annual Accounts Act (årsredovisningslagen). The Corporate Sustainability Due Diligence Directive (CSDDD), scoped to companies with more than 5,000 employees and €1.5 billion in turnover, further obliges it to identify and mitigate environmental and human-rights risks throughout its value chain. Its installations fall under the EU Emissions Trading System, administered in Sweden by Naturvårdsverket, making installation-level carbon accounting a statutory routine. And CBAM — whose definitive regime began phasing in from 2026 — has turned embedded emissions in steel into a competitive parameter across every export market, with data demands that cascade down to fabrication and maintenance contractors working on steel products and inside steel installations.



Use Case: Bergslagen Svets & Industriservice AB, Borlänge

The bank's requirements

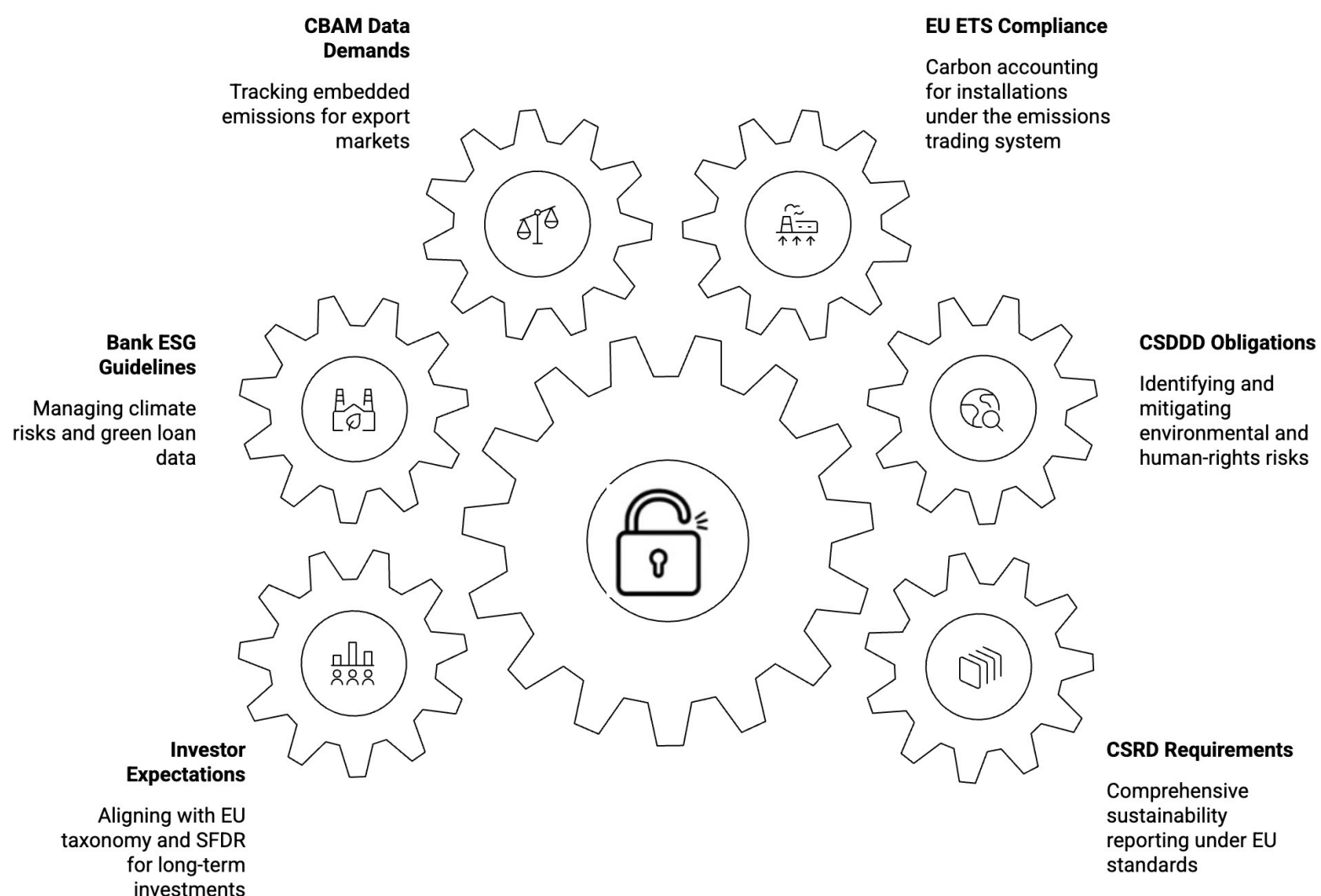
The European Banking Authority (EBA)'s ESG risk management guidelines, which since January 2026 require financial institutions to systematically identify and manage climate-related risks across their portfolios, including exposures to SME borrowers, highlight the critical role of compliance officers in safeguarding the institution's reputation and stability.

The investor-driven request

The investor-driven request traces back to updates in the Solvency II framework, which embed physical and transition climate risks in insurers' risk management, and to investor expectations shaped by the EU taxonomy and SFDR. EIOPA mandates long-term climate scenario analysis in insurers' Own Risk and Solvency Assessments. These pressures cascade through the investment and insurance value chain, eventually reaching the ESG managers of mid-sized engineering firms, who pass them on to suppliers like Bergslagen Svet

Each layer is acting rationally within its own mandate. The burden accumulates at the bottom — with Karin, one coordinator, and one spreadsheet.

Supply Chain Pressures on Steel Producers



What Encounters

Karin sits at her desk with the 41-page questionnaire, a browser, and a spreadsheet. She works through it methodically.

Question 6 — Scope 1 emissions

The questionnaire asks for total Scope 1 GHG emissions in tonnes of CO₂ equivalent for calendar year 2025, broken down by emission source. Bergslagen Svets' primary Scope 1 sources are its vehicle fleet, its diesel mobile generator, and — a subtlety Karin only discovers later — the shielding-gas mixtures used in welding. The fuel card records are in the company's accounting system but are not disaggregated by vehicle; the generator's fuel purchases are a folder of supplier invoices in liters, with no attached emission factor. Karin calculates approximate emissions using conversion factors she finds on Naturvårdsverket's website, then wonders whether she should use a location-based or market-based factor and what the difference means.

Question 11 — Scope 2 emissions and guarantees of origin

The questionnaire asks for total Scope 2 emissions from purchased electricity, including the guarantee-of-origin (ursprungsgarantier) status of the supply. The workshop's electricity invoices show kWh and SEK. Karin knows that Sweden's grid is predominantly fossil-free, but the questionnaire asks for the specific certificate status of the purchased contract. The invoices do not specify it. She learns that guarantees of origin are tracked in the Cesar registry operated by Energimyndigheten — but Cesar is built for producers and traders, not for a small fabrication firm trying to verify its own supply. She also discovers that, unlike Norway with its central Elhub, Sweden has no central electricity data hub at all: the Elmarknadshubb project was paused in 2020 pending legislation that never arrived, so her hourly consumption data sits with the local grid company, retrievable only through a customer portal that exports PDFs. She writes "approximately 98% fossil-free based on Swedish residual mix" — directionally plausible, but not the assurable figure the steel producer needs.



Question 18 — waste by stream

The questionnaire asks for total waste generated in tonnes, disaggregated by stream, with hazardous waste identified separately. Since November 2020, every Swedish business that produces hazardous waste — and a welding shop produces several streams, from used cutting fluids to contaminated abrasives — must ensure it is reported to Naturvårdsverket's national waste register (Avfallsregistret). In practice, Bergslagen Svets' licensed waste contractor handles that reporting. The data therefore exists, in a national register, reported under the company's organisation number. But Karin cannot retrieve it in structured form: the register was designed for traceability and supervision, not to give an SME its own consolidated waste profile back. She emails the waste contractor and waits.

Question 27 — management system and inspection history

The questionnaire requests the company's environmental compliance history — whether any non-conformities have been raised by the municipal environmental office or Länsstyrelsen in the past three years. This information exists in the supervisory authorities' case-management systems and partly overlaps with the documentation the company already maintains in the steel producer's own contractor qualification portal. Extracting it in the format the questionnaire requires means manually assembling records from multiple sources — records the requesting party's own systems partly already hold.

Question 33 — flood risk

The questionnaire asks whether the company's facilities are within a fluvial flood risk zone, referencing a 10-year return period. Karin finds MSB's national flood mapping (översvämningskartering) for the Dalälven and the relevant Länsstyrelsen planning layers. The answer is no — but she has to navigate three separate map portals to confirm it, and the information is not in a format she can attach or cite directly.

By the end of the first day, Karin has answered approximately half the questionnaire. Many of her answers are approximations, inconsistently referenced to different time periods, and — though she does not know this — incorrect in two places where she applied the wrong emissions conversion methodology.



The Data Already Exists — It Is Just Not Where Bergslagen Svets Needs It

A majority of the figures Karin struggled to compile already exist in Swedish public-sector databases and regulated systems, in a more accurate and auditable form.

Electricity and grid data

Hourly electricity consumption for the workshop's metering points is recorded by the local grid company. But Sweden — unlike Norway with Elhub, or Denmark with its DataHub — has no central electricity data hub: Svenska kraftnät's Elmarknadshubb project was paused in 2020 because the necessary legislation was not in place, leaving metering data fragmented across roughly 150 grid companies with no standardized SME-facing access. Guarantee-of-origin data is held in the Cesar registry under Energimyndigheten; the residual mix is published by Energimarknadsinspektionen. None of it is designed to deliver to a small fabrication company, on demand, in a format that maps to CSRD reporting fields.

Fuel purchase and emissions data

Vehicle fuel consumption is logged by the fuel card provider and, to the extent tax recovery is claimed, referenced in the company's VAT returns held by Skatteverket. The vehicle fleet itself is fully described in Transportstyrelsen's road traffic register. Emission factors are published by Naturvårdsverket and SMED. No standardized pathway exists to pull these together into a formatted Scope 1 disclosure.

Waste data

Bergslagen Svets' hazardous waste streams are reported — by law, since 2020 — to Naturvårdsverket's Avfallsregistret, under the company's own organization number, by its licensed waste contractor. The data exists in a national register designed precisely for traceability. It is simply not accessible back to the SME in structured, disclosure-ready form.

Flood and climate risk data

MSB maintains the national flood mapping; Länsstyrelserna maintain regional planning and risk layers; SMHI maintains national climate scenario services. These are publicly available but not in formats that can be integrated directly into a supplier questionnaire or a bank's climate risk assessment.

Permit, inspection and compliance records

The company's environmental supervision history sits with the municipal environmental office and Länsstyrelsen; permit-holders' annual environmental reports flow through Naturvårdsverket's SMP portal. Much of the same information has already been entered into the steel producer's contractor qualification system. The data is being reported twice across systems that do not communicate.



Use Case: Bergslagen Svets & Industriservice AB, Borlänge

Company registration and employee data

Bolagsverket holds the company's registration, and SCB's business register holds its SNI sector classification and size data. Skatteverket's monthly employer declarations at individual level (AGI) hold salary and headcount reporting. These are the building blocks of any reporting framework's entity-level data requirements — and they already exist.

The problem is not data availability. The problem is that none of these registries was designed to interoperate with the others, or to deliver data to an SME in the structured, standardized format that reporting frameworks require. Each answers to a different regulator, a different statutory mandate, and a different access regime.

The Steel Supply Chain: A Uniquely Demanding Data Environment

The Swedish steel sector presents data challenges that go beyond those facing most other SME sectors. Several features of the industry make the gap between 'data exists' and 'data is usable' especially acute.

CBAM and the price of embedded carbon

Steel is one of the sectors covered by the EU's Carbon Border Adjustment Mechanism. As CBAM's definitive regime phases in, embedded emissions have become a commercial parameter in every steel transaction — and producers competing on low-carbon steel must substantiate product carbon footprints with auditable value-chain data. Demands that began at the installation level now cascade to every contractor whose activities touch the product or the site. The fabrication SME's welding inside the mill fence becomes a data point in the product carbon footprint of a product sold on the other side of the world.

The fossil-free steel transition raises the bar.

Sweden's steel industry is staking its future on fossil-free production — hydrogen-based reduction, electrified processing, and premium low-carbon products. The commercial value of those products depends entirely on the credibility of the underlying data. A producer that markets fossil-free steel cannot tolerate unverifiable estimates anywhere in its value chain. The data bar for suppliers is therefore higher in the Swedish steel supply chain than in almost any other European supply chain, while the SMEs expected to clear it have no better access to data than anyone else.



Use Case: Bergslagen Svets & Industriservice AB, Borlänge

Multiple overlapping regulatory systems

An SME in the steel supply chain interacts with the municipal environmental office and Länsstyrelsen (environmental supervision under Miljöbalken), Arbetsmiljöverket (working environment), Skatteverket (tax, VAT, energy and fuel taxes), Bolagsverket and SCB (entity data), Naturvårdsverket (waste register, ETS administration), and Energimyndigheten (guarantees of origin, energy programmes) — all before a single supply-chain-driven request lands on the desk. The architecture of Swedish industrial regulation is sophisticated and well-maintained. It was not, however, designed with SME sustainability disclosure in mind.

The qualification system paradox

Like its Nordic counterpart, the Swedish steel ecosystem runs on supplier qualification and contractor management systems into which firms like Bergslagen Svets have already entered detailed HSE statistics, certifications, and environmental information. When the producer sends a sustainability questionnaire, it is in practice asking for a large subset of information that already exists in systems the producer itself mandates. The duplication is not accidental — it reflects the fact that qualification systems and CSRD reporting frameworks have evolved in parallel, without interoperability as a design goal.

On-site vs. offsite boundaries

Much of Bergslagen Svets' environmental footprint occurs during shutdown work inside the steel producer's installation — a regulatory space where the producer, not the contractor, holds the environmental permit and the ETS reporting obligation. Whose Scope 1 emissions are the diesel generator running inside the mill fence? Whose energy consumption is the welding power drawn from the producer's grid connection? These boundary questions remain unresolved in current reporting frameworks and are a consistent source of error in any hand-assembled response.

Chemical and material traceability

Welding and fabrication rely on a range of consumables — filler materials, shielding gases, cutting fluids, surface-treatment chemicals. Scope 3 Category 1 accounting requires the carbon footprint embedded in these supplies. This data does not exist in any Swedish government registry; it relies on supplier-level product carbon footprints, which are themselves rarely available in standardized form. For this category, the data genuinely does not yet exist in machine-readable form anywhere. This is a genuine gap, not an access problem — and it is important to distinguish the two.



What SME Unlock Could Do for Bergslagen Svets & Industriservice AB, Borlänge

SME Data Unlock proposes a consent-based data highway that allows Bergslagen Svets & Industriservice to authorize — through a single interaction built on Sweden’s existing BankID and public e-identification infrastructure — the retrieval of its data from the registries where it already resides. A structured data pull for the company’s annual sustainability disclosure would draw from the following sources:

Data need	Regulatory framework	Source registry / holder	Current accessibility
Electricity consumption by metering point	Scope 2 (CSRD / VSME)	Local grid company (elnätsbolag) — no central hub; Elmarknadshubb paused 2020	Customer portals only; ~150 DSOs, no standardized SME-facing API
Guarantees of origin (ursprungsgarantier) / residual mix	Scope 2 market-based	Cesar registry (Energimyndigheten); Energimarknadsinspektionen residual mix	Registry exists; not structured for SME disclosure
Vehicle fuel consumption (VAT-claimed)	Scope 1 (CSRD / VSME)	Skatteverket VAT records; fuel card providers	No structured access; fragmented
Company vehicle data	Scope 1 fleet baseline	Transportstyrelsen (vägtrafikregistret)	Per-vehicle lookup; not aggregated for reporting
Waste volumes, hazardous waste tracking	Waste reporting (CSRD / VSME); avfallsförordningen	Naturvårdsverket Avfallsregistret; licensed waste contractors	Contractor reports to the register; data not accessible back to the SME in structured form
Environmental permit and emissions reports	Miljöbalken; supply-chain questionnaires	SMP (Svenska Miljörapporterings-portalen); Länsstyrelsen	Permit-holder-facing; not interoperable with CSRD frameworks
Flood risk zone classification	Climate risk (EBA guidelines, green loans)	MSB översvämningskartering; Länsstyrelsen planning data	Publicly available maps; not API-formatted for disclosure
Climate projections (precipitation, temperature)	Physical risk assessment	SMHI climate scenario services	Published; not structured for SME disclosure
Property and facility data	Entity / site-level scoping	Lantmäteriet (Fastighetsregistret)	Well-structured; fee- and licence-based access
Company entity data (employees, sector, turnover band)	CSRD / VSME entity-level scoping	Bolagsverket; SCB Företagsregistret (SNI codes)	Well-structured; accessible
Payroll and headcount	Workforce metrics	Skatteverket AGI (arbetsgivar-deklaration på individnivå)	Exists, reported monthly; not reusable for sustainability disclosure
EU ETS / embedded emissions context	EU ETS; CBAM cascades via customers	Naturvårdsverket (Swedish ETS administrator); Union Registry	Installation-level; SME access unclear



Use Case: Bergslagen Svets & Industriservice AB, Borlänge

The goal is a single, SME-controlled consent flow that authorizes data retrieval from these sources, maps the outputs to the relevant reporting fields (VSME, ESRS, EFRAG taxonomy, or a specific customer's questionnaire schema), and produces a structured, XBRL machine-readable disclosure that can be submitted to any requesting party — the bank, the steel producer, the engineering customer — without replication of manual effort.

Illustrative Savings: Bergslagen Svets & Industriservice

The figures below are illustrative models, not measured results. They apply conservative assumptions to the company's profile: a 36-person firm receiving three structured sustainability data requests per year (one major steel-producer questionnaire, one green loan application, one VSME-aligned customer request)..

- **In-house (senior quality/HSE coordinator):** approximately SEK 52,000 per year in staff time without SME Data Unlock, falling to roughly SEK 10,500 with consent-based automated retrieval — an $\approx 80\%$ reduction.
- **Outsourced (ESG consultant):** approximately SEK 130,000–190,000 per year without SME Data Unlock, falling to roughly SEK 26,000–38,000 — an $\approx 80\%$ reduction.

These figures do not capture the most significant value at stake: access to green financing that is currently blocked. The new fibre-laser line Lars Ekström wants to finance costs SEK 4.5 million. The preferential interest rate on Handelsbanken's green facility represents savings of approximately SEK 190,000 over the loan term — savings that are unavailable if the baseline emissions data required for the application cannot be produced in an assurable form. Nor do they capture the risk of de-listing from the framework agreement if supplier questionnaires cannot be completed to the producer's required standard.



What SME Data Unlock Is — and Why Government Must Step Up

SME Data Unlock is not a software product. It is not a consultancy service. It is not a reporting tool, it is the plumbing standard that makes data flow like water to the tap.

It is a proposal to treat sustainability data as digital public infrastructure — in the same category as roads, electricity grids, and the internet itself — and to build the connective layer that allows that infrastructure to function for the businesses that need it most.

At its core, SME Data Unlock is an open-source, AI-powered taxonomy-mapping platform combined with a consent-driven data-sharing trust framework. Through secure connections built on Sweden's existing digital identity infrastructure — BankID, Freja eID, and the public e-identification framework coordinated by DIGG — it allows an SME to authorise, in a single interaction, the retrieval of its own data from the registries where it already resides: the grid company for energy, Cesar for guarantees of origin, Avfallsregistret for waste, MSB and SMHI for climate risk, Bolagsverket and SCB for entity data, Skatteverket for fuel and payroll context. That data is then mapped automatically to the relevant reporting fields — ESRS, VSME, EFRAG taxonomy, or a specific customer questionnaire — and produced as a structured, machine-readable disclosure.

The result: data captured once, reused across every reporting context. The bank application, the producer's questionnaire, the customer's VSME request — all answered from the same verified source, without Karin spending three days hunting invoices and guessing at conversion factors.

This is not technically difficult. Sweden has done harder. The monthly employer declaration at individual level (AGI) replaced the old annual income statements in 2019, unifying payroll reporting so that one submission to Skatteverket serves tax, social insurance, and statistics. Verksam.se already mediates between businesses and multiple agencies. BankID underpins an entire generation of private-sector digital services that the state did not have to build. And the Ena programme — Sweden's common digital infrastructure for information exchange between public bodies, coordinated by DIGG — is precisely the kind of connective tissue SME Data Unlock requires, extended to one more use case: sustainability data, flowing with the SME's consent.



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The consent layer that does not yet exist

Sweden has world-class digital identification for individuals and for businesses interacting with the state. What it does not yet have is a clean, standardized mechanism for a business to say: 'I authorize this third party to retrieve my metering data from my grid company, my waste records from Avfallsregistret, my guarantee-of-origin status from Cesar, and my flood-risk classification from the national mapping — for the specific purpose of producing a sustainability disclosure — for the next twelve months.'

The issue is a consent architecture problem, and it sits squarely in the public domain. Public authorities hold or regulate the data. The identity infrastructure exists. The interoperability standards must be set by someone with the mandate to set them across multiple agencies and statutory frameworks. No private company can do this. No foundation can mandate it. Only the government can establish the legal basis, the governance model, and the cross-agency coordination required to make it real. The fate of the Elmarknadshubb is the cautionary tale: a technically sound central data hub, paused indefinitely in 2020 because the enabling legislation never arrived. Infrastructure without a legal owner does not get built.

Why no one has fixed it yet

The reason this gap persists is not that the solution is unknown. It is that the problem falls between institutional mandates.

The Ministry of Finance owns the Annual Accounts Act and the sustainability reporting rules that flow from it — not the data highway beneath those rules. The Ministry of Climate and Enterprise is responsible for climate targets and energy policy — not digital infrastructure. DIGG coordinates the common digital infrastructure — but does not set sustainability reporting requirements. Naturvårdsverket runs the waste register and administers the ETS — but is not responsible for SME competitiveness. Energimyndigheten runs Cesar — but does not manage cross-registry data access. Bolagsverket runs the business registers — but does not operate a data exchange for sustainability disclosures. Svenska kraftnät was asked to build a central electricity hub — and is still waiting for the law that would let it.

Each of these bodies is doing its job well. The problem exists not within any of their mandates, but in the gaps between them. And problems that live in the gaps between mandates are, by definition, no one's problem — until someone with cross-cutting authority decides to own them.



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That is what SME Data Unlock is asking the government to do. Not to build the platform itself, but to adopt an open-source SME Data Unlock solution. Not to fund a new agency. But to make three decisions that only the government can make:

- **Establish the legal basis for cross-registry consent.** Determine which statutory instruments govern each relevant registry, and create the legal mechanism that allows a business, using its existing BankID-based e-identification, to grant a third party time-limited, purpose-limited access to its data across multiple registries and regulated holders simultaneously. This is a legislative and regulatory task that requires coordination among the Ministry of Finance, the ministry responsible for digitalization policy, and the individual agencies that hold the data.
- **Mandate interoperability standards.** Each registry currently has its own data schema, API maturity, and access regime — and metering data is fragmented across some 150 grid companies. Standardizing the output format — so that a kWh reading from a grid company, a waste record from Avfallsregistret, and a property record from Lantmäteriet all speak the same machine-readable language and map to the same reporting fields — requires a government mandate. This is not a market that will self-coordinate, because no individual registry or grid company has an incentive to invest in interoperability for a use case that is not its core mandate.
- **Designate an owner.** The AGI works because someone owns it. Verksam.se works because someone owns it. SME Data Unlock needs a designated owner — a body with the mandate, the resources, and the cross-agency authority to build and maintain the connective layer. It could be an expanded assignment within the Ena programme, a new function at DIGG, or a joint programme anchored in the Government Offices. What it cannot be is no one.

What the Private Sector Can Contribute — and What It Cannot

The private sector has a critical role to play, but it is not the role of building the foundational layer. Banks, steel producers, insurers, grid companies, and technology firms can build services on top of a shared, open infrastructure: user interfaces, reporting tools, sector-specific taxonomy mappings, and value-added analytics. This is exactly how BankID worked in Sweden: the banks established an identity standard, and an entire ecosystem of public and private digital services was built on top of it.

What the private sector cannot do is establish the legal consent mechanism that allows cross-registry data access. It cannot mandate interoperability standards across agencies that answer to different ministries — or across 150 grid monopolies. It cannot resolve the governance questions about who is responsible for data quality when records drawn from a grid company, Avfallsregistret, and Lantmäteriet are combined into a single disclosure. These are questions of public authority, public law, and public accountability. They require government decisions.

SME Data Unlock is doing what foundations can do: mapping the problem, building a stakeholder coalition, developing open-source AI-powered taxonomy-mapping tools, and demonstrating through use cases that the constraint is not SME capacity. The technology is available. The data exists. The public-private partnership alliance structure is designed. What is needed now is for the government to step up and take ownership of the coordination layer that only it can build.



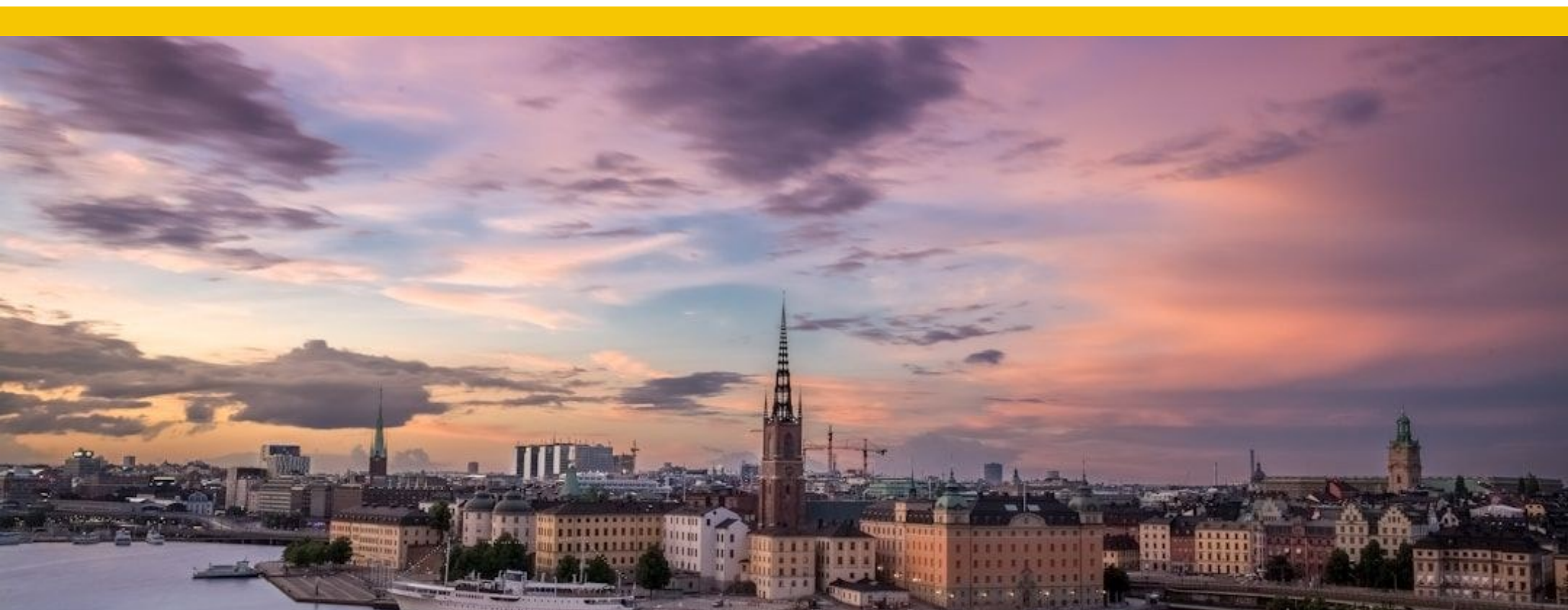
The Cost of Inaction

The cost of not solving this is not abstract. It is measured in green loans that SMEs do not apply for, framework agreements they lose because they cannot complete sustainability questionnaires, and capital investment in more energy-efficient operations that does not happen.

For Sweden, the stakes carry an additional national dimension: the credibility of the fossil-free steel transition itself. A transition marketed on data integrity cannot rest on supply-chain disclosures assembled by hand, from PDFs, with guessed conversion factors. The competitiveness of Swedish green steel and the data capability of its SME supply base are the same question.

In neighboring Norway, a 2025 Finans Norge survey found that 68% of SMEs declined to apply for green financing, citing the reporting burden. There is no reason to believe Swedish SMEs face materially different barriers — the registries differ, but the fragmentation is the same. This is not a measure of SME indifference to the green transition. It is a measure of an access barrier embedded in the infrastructure — and a barrier that government has the tools, the mandate, and the obligation to remove

Sweden has positioned itself as a digital-government leader for decades — BankID, AGI, verksamt.se, the Ena infrastructure. These are not accidents. They reflect a deliberate national capability for treating shared digital infrastructure as a public good. SME Data Unlock is asking Sweden to apply that same logic to sustainability data: to decide, as a matter of national policy, that the data SMEs need to participate in the green transition should flow as reliably and accessibly as electricity.



Call to Action

SME Data Unlock proposes to build that connective layer: an open-source, AI-powered taxonomy-mapping platform combined with a consent-driven data-sharing trust framework, anchored in Sweden's existing digital infrastructure and jointly governed by the registries and regulated entities that hold the source data.

For the Swedish steel supply chain, this is not only a question of reporting efficiency. It is a green transition question. SME suppliers that cannot produce auditable sustainability data will lose access to green financing, lose framework agreement positions with producers moving toward mandatory CSRD compliance and CBAM-grade product carbon accounting, and be unable to demonstrate the emissions reductions their clients increasingly need to account for.

The data gap is a competitiveness gap.

Imagine a world where sustainability, carbon and climate-related data flow seamlessly like water from a faucet. In this world, SMEs are enabled to make timely, well-informed decisions based on trusted, audited data. Businesses can harness the power of data to enhance their sustainability performance, while governments, regulators, policymakers, and investors can confidently rely on data to develop and implement effective environmental policies and informed investment decisions.



Join the SME Data Unlock Alliance today. Move your organization from holding data to unlocking it, and become a foundational part of the solution.

SME

DATA UNLOCK



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Liv is a co-founder of the SME Data Alliance, a key project within the wider Data Unlock program focused on unlocking diverse sustainability datasets and building a digital-first global data infrastructure. She specializes in DATA innovation and modernizing environmental reporting for small and medium-sized enterprises (SMEs). transitioning from manual, fragmented processes to automated, machine-readable systems that improve efficiency, transparency, and data usability at scale.



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