

CASE STUDY

Flex pilots Catena-X-based data exchange for global automakers

Joint efforts with the BMW Group enable secure, sovereign data exchange as a foundation for carbon accounting

Executive summary

California SB-253, the Climate Corporate Data Accountability Act, will require covered entities — generally companies 'doing business in California' with more than \$1 billion in annual revenue — to publicly report and obtain third-party assurance/verification of their greenhouse gas emissions, including Scope 1 and Scope 2 starting in 2026 and Scope 3 starting in 2027. These requirements, like the EU's CSRD regime, accelerate the shift from largely voluntary Scope 3 tracking to a regulatory and operational reporting obligation for in-scope companies.

Automotive suppliers that align early with standardized product carbon footprint (PCF) approaches reduce compliance risk, audit effort, and integration costs, positioning themselves as preferred long-term partners for global original equipment manufacturers (OEMs). In anticipation of these regulatory requirements, Flex piloted a multiregional data exchange digital infrastructure using Catena-X-based open source, peer-to-peer data space technology. The digital infrastructure enables the fast, seamless, and secure exchange of authentication data as parts travel to vehicle assembly plants from Flex sites across APAC, EMEA, and North America.

The challenge

As noted, California SB-253, which requires emissions reporting in accordance with the Greenhouse Gas Protocol, will require covered entities to disclose Scope 1 and 2 emissions beginning in 2026 and Scope 3 emissions beginning in 2027, and to obtain third-party assurance/attestation over emissions reporting (with requirements phased over time). Emissions data is required to be made publicly available via a digital platform. Because Scope 3 covers indirect emissions up and down the value chain, covered OEMs will often need emissions data from a large and diverse supplier base to compile their Scope 3 disclosures.

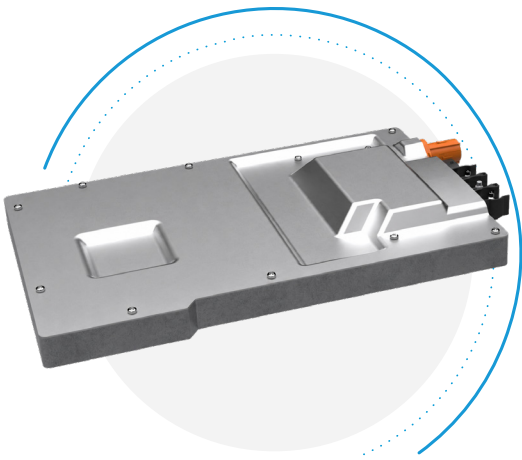
Automotive OEMs depend on vast networks of suppliers serving production facilities worldwide, making Scope 3 reporting a significant undertaking. Fragmented approaches or document-based reporting introduce compliance and audit risks, but building reliable Scope 3 emissions data chains takes time — often 12 to 18 months. OEMs will increasingly request standardized product carbon footprint (PCF) data from suppliers ahead of formal reporting deadlines.



The solution

California's climate disclosure legislation reflects a broader global trend toward more standardized and assured sustainability reporting, including EU frameworks such as the CSRD and the European Sustainability Reporting Standards (ESRS). In parallel, automotive initiatives such as Catena-X are developing product carbon footprint (PCF) data-exchange use cases intended to improve standardization and data quality across complex supply chains. For OEMs operating across regions, adopting interoperable data standards can help support multi-jurisdictional reporting needs and reduce duplicative, market-by-market processes.

Catena-X enables BMW Group, with which Flex collaborated, to facilitate the operationalization of Scope 3 emissions reporting using harmonized PCF methodologies to securely share end-to-end, auditable data flows. Implementing the digital infrastructure allows for the fast, seamless, and secure exchange of part-level emissions data throughout the supplier ecosystem, greatly streamlining the PCF tracking and reporting process while maintaining appropriate data security and access controls.

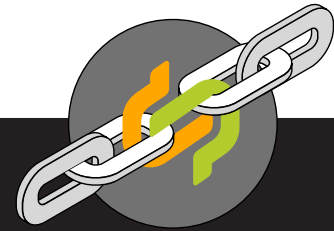


The results

The pilot for tracking PCF data for DC/DC converters achieved Level 2 certification for Flex as defined and in accordance with the Catena-X and Tfs PCF Verification and PCF Program Certification Framework (Version 2.0). Its successful completion is expected to enable faster adoption of a scalable, global approach to product-level Scope 3 emissions data exchange and reporting readiness in the U.S. and other regions. The methodology will also help Flex and automakers seamlessly onboard smaller Tier 2 suppliers not already using a data exchange such as Catena-X for a Scope 3 emissions tracking.



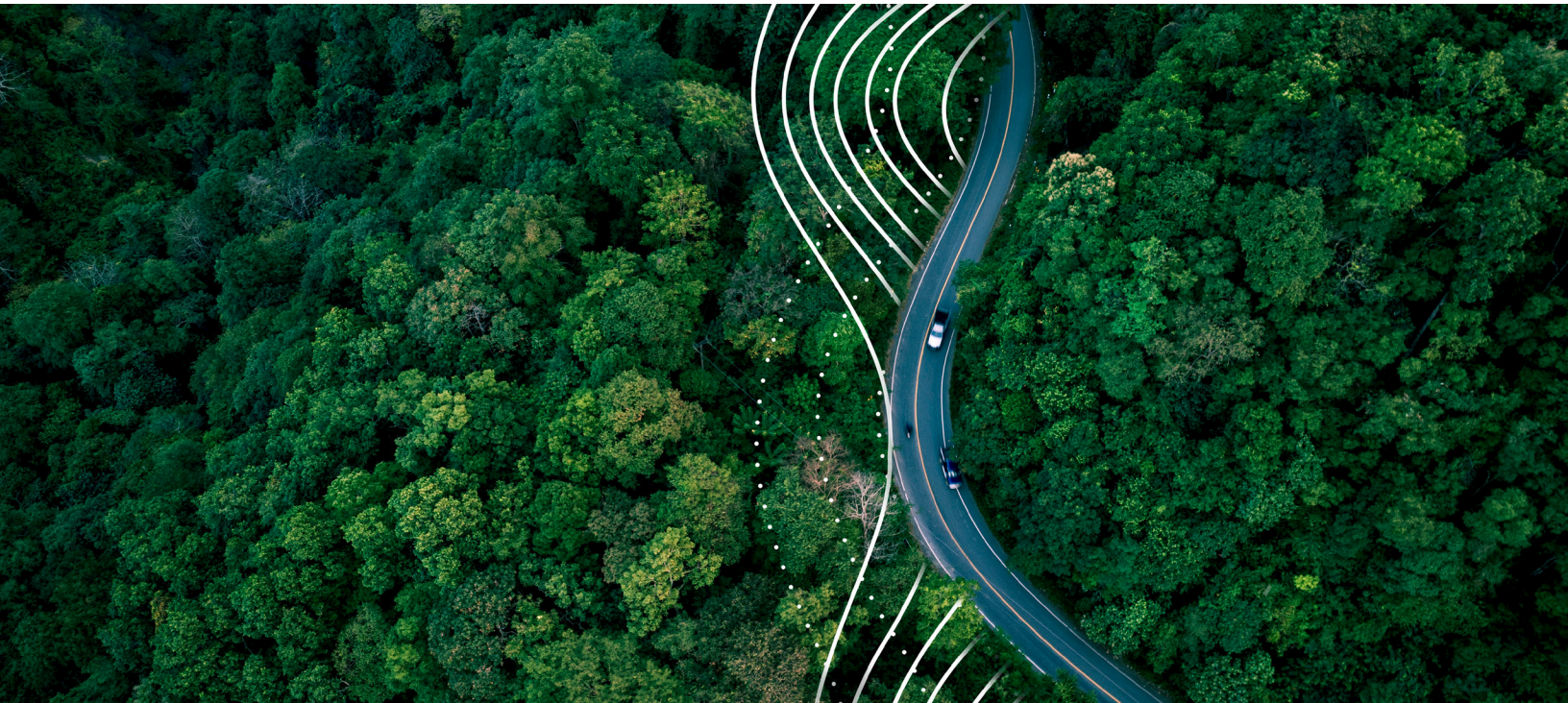
As an early member of the Catena-X ecosystem, Flex is dedicated to advancing standards-based data exchange technology throughout the automotive value chain to increase resiliency. Collaborating with global automotive OEMs enhances the ability to provide detailed product information as parts move through the ecosystem using a standardized and modular architecture. Building on this foundation, Flex can help OEMs and component suppliers seeking to address Scope 3 emissions reporting requirements in the U.S. and across regions utilize Catena-X's digital infrastructure to improve PCF and upstream emissions data readiness, supporting more efficient reporting processes for companies that are in scope of mandatory climate disclosure regimes.



Catena-X is a collaborative global initiative in the automotive industry aimed at creating a digital ecosystem for timely, sovereign, and secure data sharing and collaboration among stakeholders across the value chain. You can learn more about **Catena-X** at catena-x.net.

Tackle multiregional Scope 3 emissions reporting with confidence.

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