

USING THE FIELDPRINT PLATFORM V.5 TO MEET GHG PROTOCOL LAND SECTOR AND REMOVALS STANDARD V1.0 REQUIREMENTS

*Opportunities & Use Considerations
for Fieldprint Platform Users*



Executive Summary

This report presents findings from an alignment assessment of the Field to Market Fieldprint Platform against the Greenhouse Gas (GHG) Protocol Land Sector and Removals Standard (LSRS). The Fieldprint Platform was updated to Version 5 in November 2025 with expanded greenhouse gas and soil carbon accounting capabilities that enable this alignment analysis. The assessment evaluated seven topic areas covering system boundary and completeness, quantification methods, uncertainty, additionality and baseline, permanence and reversals, monitoring and verification, and reporting and disclosure. While Scope 3 (S3) corporate inventory users are the primary focus, the report also addresses LSRS alignment considerations for three additional user groups: companies reporting Scope 1 (S1) land sector emissions on owned or operated land, project developers seeking to generate inset or offset credits, and companies producing product carbon footprints (PCFs) under the GHG Protocol Product Standard, ISO 14067, or PACT methodology ([Table 1](#)).

SUMMARY OF FINDINGS

Overall, the Fieldprint Platform supports quantification of all LSRS required land management production emissions for all Fieldprint Platform-supported crops grown in the continental United States ([Figure 1](#)). For crops¹ grown in the U.S. Midwest² ([Figure 2](#), [Figure 3](#)), it shows strong alignment with LSRS requirements for both required and optional accounting categories (including soil carbon removals) across most dimensions, with three topic areas fully meeting requirements (including one with a near-term path to full compliance), three substantially meeting them, and one partially meeting requirements with a clear improvement pathway ([Table 4](#)). No topic area received a Does Not Meet rating at the aggregate level ([Table 4](#)).

LSRS-Required Land Management Production Emissions Quantifiable in the Fieldprint Platform

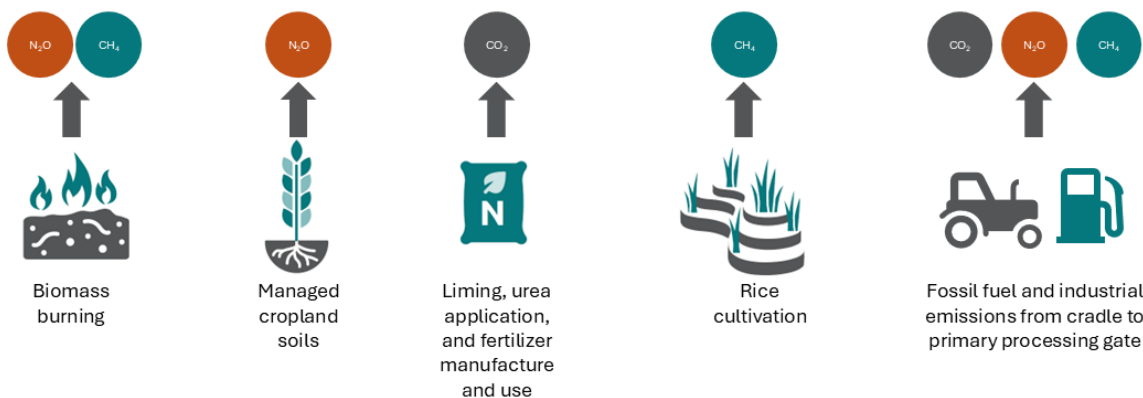


Figure 1. The Fieldprint Platform supports quantification of LSRS-required land management production emissions from crops grown in the continental United States. Figure adapted from LSRS Figure 10.1.

Summary of Topic Area Ratings (see [Table 4](#) for full details)

System Boundary & Completeness	Substantially Meets	Permanence & Reversals	Substantially Meets
Quantification Methods & Tier Level	Substantially Meets	Monitoring & Verification	Partially Meets/NA
Uncertainty	Fully Meets (pending implementation)	Reporting & Disclosure	Fully Meets
Additionality & Baseline	Fully Meets		

1 Corn, soybeans, wheat, alfalfa, and dry beans

2 The SWAT+ model is calibrated and validated for crops grown in the [USDA Land Resource Region M](#), which includes all of Iowa, most of Illinois and Indiana, large portions of Ohio, Missouri, and Minnesota, and small portions of South Dakota, Nebraska, Kansas, Oklahoma, Wisconsin, and Michigan.

The GHG Protocol LSRS requires seven accounting categories for companies reporting Scope 3 land sector emissions: 1) fossil fuel and industrial emissions, 2) LUC emissions over the last 20 years, 3) land management net biogenic CO₂, 4) land management production emissions (e.g., N₂O and CH₄), 5) land use, 6) leakage, and 7) reversals (if reporting removals; Requirement 4; [Figure 2](#)). The Fieldprint Platform supports reporting all required reporting metrics except leakage, though it does support tracking a leakage-related indicator, crop yield ([Figure 2](#)). Leakage is the annualized, average carbon stock losses from the conversion of native ecosystems to agricultural land to replace the quantity and type of reduced or diverted food or feed production at average yields. LSRS requires companies to report leakage when crops are diverted to biofuels or when they observe long-term yield reductions not related to changes made to improve the long-term sustainability of food production (Requirement 4 and Requirement 13).

Required Accounting Categories		Optional Accounting Categories	
Fossil Fuel and Industrial Emissions	Land Use Management Net Biogenic CO ₂ Emissions	Land Management CO ₂ Removals	Gross Biogenic Land CO ₂ Emissions
Land Use Change Emissions	Land Management Production Emissions	Total Emissions	Gross Biogenic Land CO ₂ Removals
Biogenic Product Emissions	Land Use/Land Occupation		Product Carbon Storage
Land Carbon Leakage	Reversals of Land Management CO ₂ Removals*		

- Quantification fully supported by the Fieldprint Platform for U.S. field crops in a Scope 3 context.
- Quantification substantially or partially supported by the Fieldprint Platform for U.S. field crops.
- Quantification NOT supported by the Fieldprint Platform for U.S. field crops.
- Not typically relevant to U.S. field crop producers or out of scope for production stage.

*Only required if removals were previously reported and they are reversed or the company loses ability to monitor storage.

Figure 2. Summary of LSRS Required and Optional Accounting Categories and Level of Quantification Support Provided by the Fieldprint Platform

Another area where companies will need to develop wraparound documentation when using the Fieldprint Platform to meet LSRS requirements for optional removal reporting is a monitoring plan. LSRS requires a formal written monitoring plan when reporting removals. While removal reporting is optional, LSRS requirement 23 for land management removals (LMR) stipulates that companies must document their monitoring approach and ongoing monitoring when their inventories include removals. The Fieldprint Platform supports key components of this process, such as consistent data collection and methodology, which can be used by companies to develop their monitoring plan. Additionally, if accounting for removals, LSRS requires empirical soil sampling and resampling at least once every 5 years, (Requirement 21.LMR “Companies shall resample using consistent methods at least every five years to estimate carbon stock changes using measurement-based approaches or to calibrate model-based or remote sensing-based approaches.” pg. 75, LSRS).

NEAR-TERM IMPROVEMENTS

There are a couple of areas where the Fieldprint Platform capabilities will soon fully meet LSRS requirements. It will provide automated direct land use change (dLUC) quantification via the cropland data layer (CDL) that meets the LSRS 20-year lookback requirement in 2027 (Requirement 15). Currently, users may manually indicate whether there was dLUC prior to 2007, and rely on tool-provided, CDL-identified dLUC quantification for 2008 through present. For companies choosing to

report removals, LSRS requires uncertainty quantification (Requirement 21.LMR). When Field to Market implements its proposed Soil Organic Carbon (SOC) claiming and monitoring framework (reviewed by Grow Well Consulting in draft form) in fall 2026, it will fully meet this requirement in advance of the LSRS going into effect in January 2027.

Across all topic areas, this report highlights the distinction between what the Fieldprint Platform itself can do versus what end users (Scope 3 inventory reporters, supply chain companies) must document and disclose independently. These user responsibilities are flagged at the end of each subsection of the assessment.

CONSIDERATIONS BY ADDITIONAL USER GROUPS

This report also addresses alignment considerations for the three additional user groups summarized in [Table 1](#) (see dedicated sections following the Development Opportunities). For Scope 1 inventory users, typically vertically integrated companies or agricultural operators reporting land emissions on owned or controlled land, Fieldprint Platform is well-suited, provided outputs are carefully disaggregated before use. The tool packages on-farm energy combustion (already reported in Scope 1 energy), purchased electricity (Scope 2, S2), and upstream input manufacturing emissions (Scope 3 Category 1) alongside the biogenic land-sector figures that belong in the Scope 1 land sector boundary. Users who apply this disaggregation face no additional tool-level gaps beyond those identified above for Scope 3 users, and benefit from direct data access that eliminates the supply chain traceability burden.

Project developers seeking to generate inset or offset credits may also find value in using Fieldprint Platform as a calculation engine but will need to perform additional analyses and calculations not currently supported by the tool. The tool does not support counterfactual baseline construction or additionality demonstration, both foundational requirements for credit issuance under LSRS Chapter 16. LSRS Requirement 29 also mandates independent verification and validation for any project generating insets or offsets, a substantially higher assurance bar than the disclosure-only requirement for inventory reporters.

Fieldprint Platform can contribute to monitoring data inputs necessary for credit generation, and its underlying quantification methods (IPCC Tier 1 for N₂O, Tier 3 SWAT+ for soil C) may qualify as components within a broader approved quantification protocol. A qualified data management partner (QDMP)³ should be able to develop a more sophisticated implementation of the Fieldprint Platform calculation engine for counterfactual scenarios. In essence, this would involve creating two modeling threads and extracting the difference between the scenarios that would enable its use for this group.

PCF users following the GHG Protocol Product Standard, ISO 14067, or PACT are the best positioned group (of the three beyond the primary Scope 3 user group) to leverage Fieldprint Platform and face no additional LSRS-specific requirements beyond those already applicable to Scope 3 inventory users. The LSRS explicitly directs companies preparing PCFs under the Product Standard to apply its accounting and reporting requirements, meaning the tool's Scope 3 alignment profile transfers directly to this use case. Additional requirements from PCF reference standards, such as ISO 14067's uncertainty quantification and data quality scoring, and PACT's documentation templates, are user responsibilities outside the tool's scope, consistent with how this assessment treats analogous user responsibilities for Scope 3 inventory users.

Overall, the Fieldprint Platform provides a strong foundation for LSRS-compliant reporting, supporting quantification of land sector emissions and optional soil carbon removals for Fieldprint Platform-supported crops grown in the continental U.S., with continued improvements underway to further strengthen alignment.

³ Field to Market. 2026. Data Partners. Available from: <https://fieldtomarket.org/our-programs/fieldprint-platform/scaling-farmer-access/> (accessed 28 April 2026).

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Introduction

Field to Market developed the Fieldprint Platform for its members to evaluate several dimensions of impact of the projects they implement with U.S. crop producers. These indicators include several that overlap with inventory reporting metrics required of companies with significant land sector greenhouse gas (GHG) emissions by the GHG Protocol Land Sector and Removals Standard (LSRS) (version 1.0). Companies with significant land sector emissions are the primary intended users of the LSRS, who will rely on the standard to construct their organizational inventories. These companies form an important constituency of Field to Market members and have requested that Field to Market conduct an in-depth alignment review of the relevant Fieldprint Platform indicators (and metric components available in more detailed data downloads), the methods and documentation behind them compared to the LSRS requirements.

While the LSRS primarily applies to companies using it to construct their Scope 3 organizational GHG inventories (or Scope 1 inventory, if they have Land Use, Land Use Change, and Forestry (LULUCF) emissions in their Scope 1), the standard also puts forth requirements and recommendations for project (intervention) accounting (Ch.16), target setting and progress tracking (Ch.17), and accounting for and reporting credits generated through land sector projects (Ch.18). These requirements and recommendations are relevant to many Field to Market members who may also be interested in LSRS for its primary purpose of guiding construction of their inventory. However, it also creates several other potential applications for Fieldprint Platform outputs for other Field to Market members such as project developers. Finally, product accounting following the GHG Protocol Product Standard, PACT Methodology, or ISO 14067 is another area where LSRS puts forth requirements and Field to Market members may seek to apply outputs of the Fieldprint Platform. This report assesses alignment for each of these user groups ([Table 1](#)) and their applications of Fieldprint Platform outputs with the LSRS.

Table 1. User Groups and Relevant LSRS Application(s)

#	USER GROUP	PRIMARY LSRS REPORTING CONTEXT
1	Consumer Goods / Food & Beverage	Scope 3, Category 1, purchased agricultural commodities. Reporting land emissions and (optionally) removals attributable to sourcing regions or land management units (LMUs)
2	Companies with Scope 1 FLAG emissions	Scope 1 land emissions and removals on owned/controlled agricultural land. Companies with significant FLAG emissions as defined by SBTi.
3	Project Developers	GHG Protocol Project Accounting plus LSRS Ch. 12–13 for inventory-based removals claims; LSRS Ch. 18 for credit quality criteria.
4	Product Footprint / LCA Providers	GHG Protocol Product Standard (cradle-to-gate or cradle-to-grave) with LSRS requirements for land emissions and optional removals applied per Req 3. We also address considerations for members who may be following PACT or ISO 14067 product carbon footprint standards.

To assess alignment for each of these user groups, metrics, outputs, and/or method documentation was scored against a rubric segmented into seven topic areas: System Boundary & Completeness, Quantification Methods & Tier Level, Uncertainty, Additionality & Baseline, Permanence & Reversals, Monitoring & Verification, Reporting & Disclosure. Each area captures one or more GHG accounting principles ([Table 2](#)). For each of these topic areas, relevant LSRS requirements were mapped to the rubric and then assessed against the Fieldprint Platform outputs: demonstration Fieldprint Project Report (a product for Fieldprint Projects) and supporting spreadsheets, published method documentation, and draft Soil Organic Carbon Claiming & Monitoring Framework, as well as the draft Uncertainty Quantification Methodology for Agricultural GHG Projects. Alignment was scored on a 4-level rating system as described in [Table 3](#) below. Where scoring depends on full implementation of the draft methods, it is noted as contingent on implementation and not characteristic of Fieldprint Platform.

Table 2. GHG Accounting Principles and Applicability (adapted from LSRS Table 3.1)

PRINCIPLE	DEFINITION	APPLICABILITY
Relevance	Ensure the GHG inventory appropriately reflects the GHG emissions, removals (if applicable), and other metrics of the company and serves the decision-making needs of users, both internal and external to the company.	Required for emissions and removals accounting for inventories as well as for product and project accounting for emissions and removals.
Completeness	Account for and report on all GHG emissions, removals (if applicable), and other metrics from sources, sinks, and activities within the inventory boundary. Disclose and justify any specific exclusions.	
Consistency	Use consistent methodologies to allow for meaningful performance tracking of GHG emissions, removals (if applicable), and other metrics over time. Transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series.	
Transparency	Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make proper references to the accounting and calculation methodologies and data sources used.	
Accuracy	Ensure that the quantification of GHG emissions, removals (if applicable), and other metrics is systematically neither over nor under actual emissions, removals (if applicable), and other metrics, and that uncertainties are reduced as far as practical. Achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported information.	
Conservativeness	Use conservative assumptions, values, and procedures when uncertainty is high and exact estimates are not practical. Conservative values and assumptions are those that are more likely to overestimate GHG emissions and other related metrics and underestimate removals.	Required for removals accounting (if included in inventory, project, or product accounting)
Permanence	Ensure mechanisms are in place to monitor the continued storage of reported removals and captured CO ₂ , account for reversals, and report emissions from associated carbon pools.	
Additionality	Emissions reductions or removals that result from the company's mitigation efforts, rather than removals that would have occurred otherwise.	Required for project accounting to support GHG crediting. Not applicable (NA) to inventory accounting.

Table 3. Rubric rating and scoring categories.

RATING	SCORE	DEFINITION
Fully Meets	3	Fieldprint Platform provides capability that directly satisfies the LSRS requirement as written, without material gaps.
Substantially Meets	2	Core capability present; minor documentation, formatting, or supplementary gaps remain. Meets the standard’s intent.
Partially Meets	1	Some relevant capability is present, but material gaps exist that prevent full conformance. Significant work needed.
Does Not Meet	0	LSRS requirement is not currently addressed by Fieldprint Platform. Fundamental capability gap.
N/A	NA	LSRS requirement is not applicable to this user group’s reporting context.

Overall, the Fieldprint Platform’s GHG emissions indicator, and its components, as well as the land use indicator can be used to meet or support LSRS reporting requirements for land use change, land use and leakage, land management net biogenic CO₂ emissions, and land management production emissions for all crops supported by the Platform grown in the continental U.S. Additionally, the soil carbon indicator substantially meets the LSRS reporting requirements for optional reporting of land management CO₂ removals attributable to certain crops grown in the Midwest U.S. (USDA Land Resource Region M, [Figure 3](#), below) in companies’ Scope 1 or Scope 3 inventories ([Table 4](#)). Beyond the optional soil carbon removal reporting, the only Scope 3 inventory-relevant LSRS requirement that Fieldprint Platform does not meet is Requirement 13, which requires quantification and reporting of leakage if crops are used for biofuels or there is a significant reduction in crop yields per acre over the long term. However, the Fieldprint Platform’s land use indicator can provide insight into yield changes over time, which is a relevant input for assessing potential leakage. That said, quantifying leakage would require additional analysis beyond the platform. Companies’ full compliance with the LSRS depends on how the companies implement Fieldprint Platform and distribute outputs across reporting companies with shared supply. Using Fieldprint Platform indicators to meet and report on project impacts or generate inset credits is also possible but requires more processing outside the Fieldprint Platform.

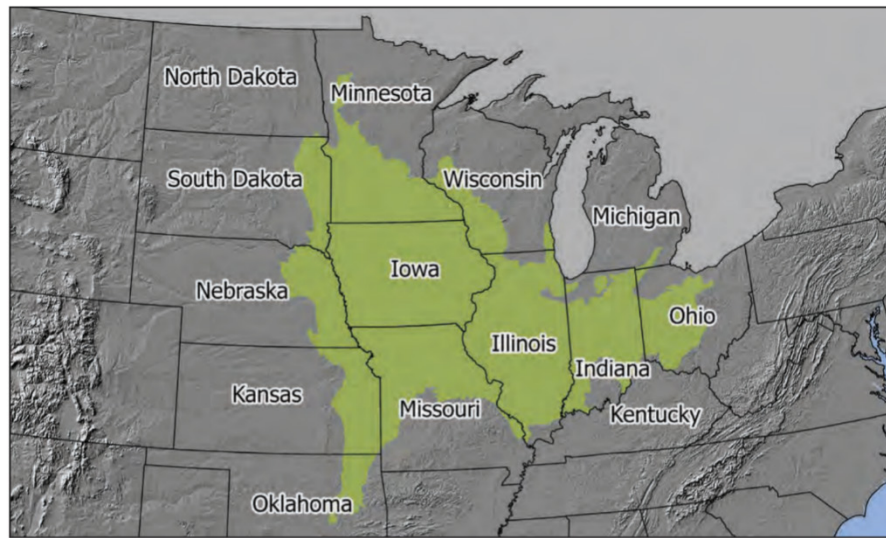


Figure 3. USDA Land Resource Region M, Central Feed Grains and Livestock Region, reproduced from Figure M-1 in [Major Land Resource Areas of the United States](#) p. 347.

Table 4. Overall Scores Summary by Topic Area (scored from the perspective of S3 inventory end users). **Scores below represent the means of all scoring elements used to assess each topic area.*** Details related to the contributing scoring elements are presented in Tables 5-11.

TOPIC AREA	SCORE	OVERALL RATING	AREAS FOR ALIGNMENT OR IMPROVEMENT
System Boundary & Completeness	2	Substantially Meets	Main gap is leakage accounting and reporting for crops used as biofuels or in the case that yield reductions are seen over time.
Quantification Methods & Tier Level	1.8	Substantially Meets	Minor gaps include: 1) Compliant dLUC quantification not fully supported (2006 to 2026) in an automated way until 2027, only for 2007 to present. Users may manually note dLUC for years prior to 2007.; 2) Crops beyond corn, soy, wheat, alfalfa, and dry beans grown in the USDA Land Resource Region M (LRR M, Figure 3) lack the measured SOC data needed to validate carbon balance parameters for optional removal reporting; 3) The Soil and Water Assessment Tool Plus (SWAT+) sampling and calibration schedule needs to be disclosed to use outputs for crops grown in LRR M; 4) to meet removal accounting and reporting requirements empirical sampling must happen at least once every 5 years
Uncertainty	2.5	Fully Meets (pending implementation)	Will fully meet when proposed SOC claiming and monitoring framework is implemented in fall 2026.
Additionality* & Baseline	3	Fully Meets	*Not required or applicable for Inventory accounting
Permanence** & Reversals **Permanence requirements apply only if reporting CO ₂ removals	2.3	Substantially Meets	The SOC claiming framework has the accounting logic, but a formal written monitoring plan document (including monitoring frequency, carbon pools, sampling methods) is not part of current Fieldprint Platform output. Users may develop this documentation outside the tool to fully meet these requirements. Field to Market provided documentation provides a strong foundation for developing monitoring plan documentation and supporting buffer pool creation. Monitor forthcoming guidance to evaluate whether changes to the proposed buffer pool method are called for.
Monitoring & Verification	1/ NA	Partially Meets/NA	Monitoring plan documentation is not a current Fieldprint Platform output. Each field or sourcing region where removals are claimed needs a written monitoring plan referencing spatial boundaries, pool coverage, monitoring frequency, and Quality Control (QC) procedures. As noted above, tool users may use Fieldprint Platform data and documentation as the foundation of a monitoring plan. Requirement to disclose whether 3rd party assurance has been attained was scored as NA, but there is nothing about Fieldprint Platform methods, documentation, or reporting outputs that would prevent a company from obtaining assurance, other than better documenting the monitoring plan.
Reporting & Disclosure	3	Fully Meets	Disaggregated reporting is currently nested in a downloadable Excel file within the Fieldprint Project Report.

Topic Area Findings

1. System Boundary & Completeness Score: 2 | Rating: **Substantially Meets**

Fieldprint Platform supports all LSRS-required accounting categories relevant to annual crop production with one notable exception: leakage accounting, though the yield tracking supported by the platform is a key input variable necessary to flag whether non-zero leakage may need to be reported or not (Table 5). The Platform supports fossil fuel and industrial emissions, LUC emissions, land management net biogenic CO₂, land management production emissions, land use, and reversals. The land use indicator (acres per unit of output or hectares per unit output) aligns with LSRS Req 12 to report a land use metric.

KEY FINDINGS BY REQUIREMENT

Table 5. Detailed Alignment of Fieldprint Platform Capabilities with LSRS System Boundary & Completeness Requirements

LSRS REQUIREMENT	KEY GAPS & CONDITIONS	ALIGNMENT RATING	SCORE
Req 4: Required accounting categories (Scope 3)	Leakage is not currently supported by Fieldprint Platform but must be reported if crop yields decrease or crops are used for biofuels.	Substantially Meets	2
Req 12: Land occupation (hectares per unit output)	This is provided. Members should note that this can only be used for the part of their product supply that originates from enrolled acres. For the balance of supply, tool users will need to use jurisdictionally appropriate figures based on state/provincial, national or global mean yields, depending on their level of traceability.	Fully Meets	3
Req 13: Land carbon leakage	For crops diverted to biofuels or where there is reduction in crop yields, as documented in some geographies with cover crops (e.g., Deines et al. 2022), LSRS requires reporting of land carbon leakage. “Quantification approach: Companies shall quantify land carbon leakage using the annualized, average carbon stock losses from the conversion of native ecosystems to agricultural land to replace the quantity and type of reduced or diverted food or feed production at average yields (“carbon opportunity cost”).” (LSRS p. 49) The Fieldprint Platform does support monitoring yields, a leakage-related metric.	Does Not Meet	0
Req 15: All land carbon changes treated as anthropogenic	For one year from the effective date of the LSRS (Jan. 2027), the Platform’s Direct Land Use Change Method will not fully satisfy the 20-year lookback period requirement, though it offers manual entry of user-identified LUC prior to 2008. LSRS v.1 does not specify the spatial resolution requirement for data sets used to identify dLUC but may weigh in on that in the GHG Protocol LSRS guidance expected later in 2026. This may further impact alignment of this method.	Substantially Meets	2

	<p>If wildfires, floods, or other types of catastrophic storms or natural disturbances affect enrolled fields, companies will need to find alternative approaches to quantify their impacts on C stocks.</p> <p>Still rated as substantially meets because this is mostly a material issue for forest lands converted to cropland where there is substantial C stored in biomass. Where LUC occurs in the US it is mostly from pasture or grass-land to cropland.</p>		
Req 16: Land management production emissions	All required emission sources for corn, soy, wheat, and single-harvest rice are included. Ratoon rice is not supported, which is material for some supply chain buyers. Otherwise, fully compliant.	Fully Meets (for USDA LRR M – Figure 3 – corn, soy, wheat)	3
Req 20.1.LMR: Sourcing region sampling representativeness	The Fieldprint Platform can support this requirement, but it has not been formalized as a required project design principle. Members should take note of this requirement when designing Fieldprint Projects.	NA (not a tool functionality issue, a project design issue)	NA

CONSIDERATIONS FOR USING THE FIELDPRINT PLATFORM FOR LSRS-COMPLIANT REPORTING:

- Monitor crop yields and the Fieldprint Platform Land Use indicator for any evidence of a “significant reduction in crop yields per acre resulting from a change in cropland management”. If this occurs, LSRS requires companies to report leakage. LSRS requires companies to quantify leakage using the annualized, average carbon stock losses from the conversion of native ecosystems to agricultural land to replace the quantity and type of reduced or diverted food or feed production at average yields. If companies document that enrolled fields sustain or improve yields with the Fieldprint Platform they can use that as documentation to report zero leakage, in compliance with LSRS.
- Review and incorporate LSRS sourcing region sampling representativeness requirements into Project design and acreage enrollment.
- Monitor forthcoming LSRS guidance on spatial resolution requirements for dLUC datasets, as this may affect CDL-based compliance.

2. Quantification Methods & Tier Level Score: 1.8 | Rating: Substantially Meets

Reporting soil carbon removals is optional under the LSRS. SWAT+, the process-based model Fieldprint Platform uses for soil carbon, is well-calibrated for corn, soy, and wheat in the U.S. Midwest (USDA LRR M, [Figure 3](#)). For other LSRS-required metrics for all land sector companies, including land use change emissions, land use, land management net biogenic CO₂ emissions, and land management production emissions, the Fieldprint Platform uses current IPCC AR6 GWP values and emissions factors appropriate for crop production throughout the continental U.S. ([Figure 2](#)). However, a few methodological gaps limit full compliance, particularly to use the Platform for reporting optional land management CO₂ removals.

KEY FINDINGS BY REQUIREMENT

Table 6. Detailed Alignment of Fieldprint Platform Capabilities with LSRS Methodological Requirements (AR6, Tier 2-3)

LSRS REQUIREMENT	KEY GAPS & CONDITIONS	ALIGNMENT RATING	SCORE
Req 16: Land management production emissions accounting	Upstream Emissions Factors provenance and vintage are fully disclosed. All required categories of land management production emissions are supported for all field crops supported by the Fieldprint Platform. Fluxes	Substantially Meets	2

	and uncertainty for N ₂ O, CH ₄ , and CO ₂ are supported (Figure 1). Members sourcing paddy rice may face some limitations as the SWAT+ rice hydrology methods are not yet functional.		
Req 9: Consistent allocation method across metrics	Current approach is area-time; functional unit outputs are available. Allocation is currently at standard moisture per crop (which differs across crops). Consider converting to dry matter (DM) mass-based allocation across the rotation. Review forthcoming LSR guidance before adjusting.	Partially Meets	1
Req 10: LUC calculation — dLUC preferred	dLUC is fully supported in concept. Data available back to 2007; thus 20-year lookback with USDA CDL data layer will not be satisfied until 2027. Manual entry is available for years prior to 2007.	Substantially Meets	2
Req 14: Stock-change accounting for SOC	SWAT+ modeled SOC stock changes at 30-cm depth align with requirements. Zero baseline approach for the SOC claiming framework is consistent with LSRS Req 14 annual accounting approach.	Fully Meets	3
Req 21.LMR: Empirical data; resample at least every 5 years	SWAT+ Model calibration is regional, not sourcing-region-specific or farm-specific. SWAT+ integrates data and resources from two primary initiatives: the National Agroecosystem Model (NAM) and the USDA Conservation Effect Assessment Project (CEAP). NAM utilizes SWAT+ to simulate national crop yields, while CEAP employs the model across more than 2,000 HUC-8 watersheds to evaluate how conservation practices impact water quality and the environment. Beyond these ongoing updates, modelers intend to integrate soil sample data provided by Fieldprint projects. This will create a continuous feedback loop to refine SOC estimates. To date, the resampling cadence is not necessarily 5 years, just “periodic.” For removal claims at LMU or sourcing region level, calibration sampling data must be representative of variation across all attributable productive lands (e.g., done at the project-level regardless).	Partially Meets	1

CONSIDERATIONS FOR USING THE FIELDPRINT PLATFORM FOR LSRS-COMPLIANT REPORTING:

- Consult forthcoming LSRS guidance to confirm that area-time allocation is acceptable, which is the method currently used by the Fieldprint Platform.
- To be eligible to report removals, conduct soil sampling at least once every 5 years.
- If reporting removals, ensure your sampling scheme and size is large enough to be representative of the variation due to both natural factors (e.g., climate, vegetation, soil type, topography, etc.) and management factors (e.g., prescribed fire management, cropping systems, tillage practices, etc.) throughout all attributable productive lands included in your sourcing region.
- If collecting soil organic matter samples, participate in data sharing with Field to Market and partners at Colorado State University to support collaborative expansion, calibration, and validation of the SWAT+ model in both the LRR M and elsewhere across the continental U.S.

- To meet the LSRS 20-year lookback requirement for LUC, manually enter data for your project region for 2006, if reporting in 2026, or note the inventory only includes a 19-year look-back due to data availability, but will become fully compliant in 2027.

3. Uncertainty Score: 2.5 | Rating: Fully Meets (pending implementation)

Uncertainty quantification is on a strong trajectory (Table 7). Methodology documentation supports uncertainty quantification for both N₂O production emissions and soil carbon removals. The primary gap is that Field to Market has not yet integrated quantitative uncertainty bounds for the GHG indicator reporting outputs, which LSRS requires for removals claims under Req 21.LMR.

KEY FINDINGS BY REQUIREMENT

Table 7. Detailed Alignment of Fieldprint Platform Capabilities with LSRS Uncertainty Requirements

LSRS REQUIREMENT	KEY GAPS & CONDITIONS	ALIGNMENT RATING	SCORE
Req 9: Disclose data quality, sampling method, and uncertainty	Methodology documentation is sufficient to support uncertainty quantification. Integration into the output GHG report is pending as of April 2026. Companies may use a qualitative uncertainty statement as an interim approach. SOC removals should not be claimed until 95% confidence intervals are available.	Substantially Meets	2
Req 21.LMR: Quantitative uncertainty estimates for removals	Proposed method quantifies sampling and method uncertainty and reports both the central estimate and 95% CI. Will fully meet requirements once Field to Market publishes/implements the Uncertainty Quantification Methodology and integrates it into reporting. LSRS conservativeness requirement applies when 95% CI overlaps zero, consider offering explicit guidance to companies to not report removals.	Fully Meets	3*

CONSIDERATIONS FOR USING THE FIELDPRINT PLATFORM FOR LSRS-COMPLIANT REPORTING:

- Members should confirm fall 2026 implementation of the SOC claiming and monitoring framework, which will bring this topic area into full compliance with LSRS.
- Users may not report SOC removals in an LSRS-compliant inventory until quantitative uncertainty bounds are available.
- Users should follow the LSRS conservativeness principle: when the 95% CI overlaps zero, refrain from reporting removals.

4. Additionality & Baseline Score: 3.0 | Rating: Fully Meets

This topic area fully meets LSRS requirements (Table 8). Importantly, LSRS inventory accounting does not require additionality. It just requires accurate quantification of net land carbon stock changes and production emissions in the reporting year compared to a zero baseline, which is exactly how Field to Market structured Fieldprint Platform.

KEY FINDINGS BY REQUIREMENT

Table 8. Detailed Alignment of Fieldprint Platform Capabilities with LSRS Additionality & Baseline Requirements

LSRS REQUIREMENT	KEY GAPS & CONDITIONS	ALIGNMENT RATING	SCORE
Req 21.LMR: Removals reflect actual net carbon stock increases	SOC claiming framework uses a zero baseline (all negative annual flux is creditable sequestration), consistent with LSRS stock-change approach. Conservative and appropriate for Scope 3 inventory reporting.	Fully Meets	3
LSRS does not require additionality for inventory accounting	Fieldprint Platform uses zero baseline, excludes pre-enrollment years, and is structured for S3 inventory reporting. Users wishing to use outputs to justify supply chain investment claims must use separate project accounting methods (GHG Protocol Project Accounting and LSRS Ch. 16).	Fully Meets	3

CONSIDERATIONS FOR USING THE FIELDPRINT PLATFORM FOR LSRS-COMPLIANT REPORTING:

A key clarification for end users: Scope 3 inventory reporters (e.g., food companies, ingredient buyers) do not need to prove additionality. They need accurate quantification of actual annual emissions and stock changes on sourcing lands. The Fieldprint Platform provides this inventory accounting documentation. If buyers wish to claim ‘emission reductions relative to a baseline’ for investors or public communications, they must use project accounting frameworks distinct from their GHG inventory. It is also likely that a company’s baseline inventory reporting year is not the baseline year of the company’s Fieldprint Platform project. Companies should caution in interpretation of changes documented with Fieldprint Platform compared to the emission factors (EFs) used in their baseline inventories.

5. Permanence & Reversals Score: 2.3 | Rating: Substantially Meets

The SOC claiming framework has the core accounting logic for permanence and reversals, including continuous running balances, automatic reversal detection, and a 15% buffer pool (or customizable by project). The primary gap is the absence of a formal written monitoring plan document, which LSRS Req 23.LMR explicitly requires. In addition, Fieldprint Platform users will configure the buffer pool at the project level rather than the corporate level, requiring further specification by users collaborating on shared supply chain projects.

KEY FINDINGS BY REQUIREMENT

Table 9. Detailed Alignment of Fieldprint Platform Capabilities with LSRS Permanence & Reversals Requirements (for removals only)

LSRS REQUIREMENT	KEY GAPS & CONDITIONS	ALIGNMENT RATING	SCORE
Req 23.LMR: Ongoing monitoring; documented monitoring plan; report net carbon losses	Accounting logic is robust: continuous running balance per field (never reset), automatic reversal detection, 15% buffer pool, monitoring tracked post-unenrollment. However, a formal written monitoring plan is not a current Fieldprint Platform output. Field to Market or Fieldprint Platform users must develop this documentation to achieve LSRS-compliant reporting.	Substantially Meets	2

Ch. 12.3: Reserve (buffer pool) approach allowed as risk management tool (NOT a requirement)	A 15% buffer pool is internally set and is consistent with LSRS reserve approach option. Users should disclose the buffer rate and tie it to a risk assessment rationale to ensure LSRS compliance.	Fully Meets (<i>note this is not a requirement, but a recommendation</i>)	3
Reserve approach: detailed corporate-level accounting requirements	Method for splitting the reserve pool among multiple companies collaborating on a shared supply chain project needs to be developed. Each corporation needs their own buffer pool.	Substantially Meets	2

CONSIDERATIONS FOR USING THE FIELDPRINT PLATFORM FOR LSRS-COMPLIANT REPORTING:

- If reporting removals, develop a monitoring plan that satisfies LSRS Req 23.LMR documentation requirements, covering spatial boundaries, pool coverage, monitoring frequency, and QC procedures. Use data organized within Fieldprint as a foundation.
- If reporting removals, monitor forthcoming LSRS guidance to evaluate whether companies will need to make any changes to the default 15% buffer pool method.
- Collaborate with your fellow project partners if participating in multi-company projects on how to distribute project-level buffer pool credits to individual corporate inventories.

6. Monitoring & Verification Score: 1 / NA | Rating: Partially Meets / NA

This topic area received the lowest score among scoreable topic areas, reflecting a structural gap: monitoring plan documentation is not a current Fieldprint Platform deliverable. LSRS Req 23.LMR requires a written monitoring plan that references spatial boundaries, pool coverage, monitoring frequency, and QC procedures for each field or sourcing region where companies report removals in their inventories. The third-party assurance disclosure requirement was scored NA, as this is a corporate-level decision outside the scope of the tool. There is nothing about the tool that precludes it, in fact, the tool supports creation of an auditable document trail for assurance.

KEY FINDINGS BY REQUIREMENT

Table 10. Detailed Alignment of Fieldprint Platform Capabilities with LSRS Monitoring & Verification Requirements

LSRS REQUIREMENT	KEY GAPS & CONDITIONS	ALIGNMENT RATING	SCORE
Req 23.LMR: Documented periodic monitoring plan	Draft SOC Claiming & Monitoring Framework provides partial guidance, but more explicit guidance on exporting project management data to meet LSRS monitoring plan requirements is needed. Particularly important: explicit documentation of any empirical sampling within projects to calibrate SOC modeled outputs.	Partially Meets	1
Req (unnumbered, Ch. 19, falls between Requirement 30.1 and 31): Disclose whether 3rd party assurance obtained	Fieldprint Platform inputs, outputs, and method documentation substantially support what is needed for assurance. However, this is a corporate decision outside the tool’s scope. Use of Fieldprint Platform does not limit a company’s ability to obtain third-party assurance.	NA	N/A
Ch. 19 (Rec): Seek 3rd party limited assurance at minimum	Same as above. Assurance of individual inventory outputs will be needed to meet this recommendation. This is a user-side action.	NA	N/A

CONSIDERATIONS FOR USING THE FIELDPRINT PLATFORM FOR LSRS-COMPLIANT REPORTING:

- Ensure their monitoring plan document addresses: spatial boundaries of enrolled fields, carbon pools covered, monitoring frequency, empirical sampling schedule, and QC procedures.
- Attain third-party assurance. Fieldprint outputs are compatible with assurance processes.

7. Reporting & Disclosure Score: 3.0 | Rating: Fully Meets

Fieldprint Platform fully meets LSRS reporting and disclosure requirements. Spatial boundaries are tracked at the field level via shapefiles. Methods, data sources, assumptions, and uncertainty are thoroughly documented. Disaggregated reporting across all required emissions categories is available and meets LSRS Req 31 requirements. Since all relevant emissions and removals fall within Scope 3 Category 1 (Purchased Goods and Services), no further disaggregation by Scope category is needed.

KEY FINDINGS BY REQUIREMENT

Table 11. Detailed scoring of Fieldprint Platform alignment with LSRS Reporting & Disclosure Requirements

LSRS REQUIREMENT	KEY GAPS & CONDITIONS	ALIGNMENT RATING	SCORE
Req 5: Disclose Scope 3 spatial boundary	Individual fields are documented with shapefiles. Users must separately confirm that enrolled fields fall within their Scope 3 boundary for that reporting year (i.e., that they purchased from that field via their supply chain, either directly or that the enrolled field sold product to the elevator or crush plant the company purchased from).	Fully Meets	3
Req 9: Report GHG inventory data and methods	Field to Market thoroughly documents tool-related methods, data sources, assumptions, spatial boundaries, and uncertainty across Methods 5.0, SOC Claiming & Monitoring Framework, Sample Fieldprint Project Report Output, and Uncertainty Quantification Methodology. Supply chain traceability documentation is a platform user responsibility.	Fully Meets	3
Req 31: Disaggregated reporting by category	All required sub-categories are included. Disaggregated data is currently available only via a downloadable Excel file; elevating these metrics in the main output report body in future revisions would improve usability.	Fully Meets	3
Req 32: If aggregate reporting includes all required subcategories	NA, disaggregated reporting is provided. All subcategories are included.	NA b/c disaggregated reporting provided	NA

Development Opportunities for the Fieldprint Platform

The Fieldprint Platform offers users a solid foundation from which they can construct relevant components of an LSRS-compliant Scope 3 inventory. Looking ahead, there are opportunities to enhance tool capabilities, outputs, and documentation to meet additional LSRS requirements for companies with land emissions. These are summarized below. Member feedback on and support for these opportunities will further improve the utility of the Fieldprint Platform for meeting Members' GHG accounting needs.

- Publish the Uncertainty Quantification Methodology and integrate into the GHG reporting output; users should consult with their inventory preparers about optional reporting of SOC prior to availability of 95% CIs.
- Request Colorado State University to publish a formal SWAT+ empirical resampling schedule (at minimum every 5 years). This is outside Field to Market's scope of control but would make the tool more compliant with LSRS requirements for users who want to make optional soil carbon removal claims in their inventories.
- Develop and issue guidance ensuring empirical sampling of project fields is conducted at least once every 5 years for any fields reporting SOC removals, consistent with LSRS Req 21.LMR (Quantification Methods).
- Build out methodological guidance (or, ideally, longer term an automated tool output indicator) for calculating LSRS-required leakage based on yields and land use tracked in the Fieldprint Platform. This would cover scenarios where crops are diverted to biofuels or where long-term yield reductions are seen. It would also flag situations where zero leakage should be reported. (This could happen now as it is just a re-interpretation of existing Platform data and outputs.)
- Develop monitoring plan documentation as a Fieldprint Platform output. Users are already using the platform to manage extensive data collection and storage. Creating some templates that could be used to meet this LSRS requirement based on the structure the Fieldprint Platform already affords would be a valuable piece of support for users seeking to use Platform outputs as LSRS-compliant inputs to their inventories. Each field or sourcing region where removals are claimed requires a written monitoring plan covering spatial boundaries, pool coverage, monitoring frequency, empirical sampling schedule, and QC procedures (Monitoring & Verification). Some of this is simply a re-framing of content Field to Market has already developed on its SOC Claiming Methodology.
- Expand SOC data collection and validation for crops beyond those grown in the Midwest (USDA LRR M, including corn, soy, alfalfa, wheat, and dry beans; [Figure 3](#)), prioritizing rice, cotton, and peanuts.
- Review and clarify allocation method, currently area-time, but easily convertible to DM mass-based, after the pending LSRS guidance expected in 2026 comes out (Quantification Methods).
- Develop guidance for multi-company projects on splitting the buffer pool across corporate inventories.
- Incorporate sourcing region sampling representativeness requirements into the Project Standard.
- Monitor forthcoming LSRS guidance (Q2 2026) on spatial resolution requirements for dLUC datasets; assess implications for CDL-based compliance.
- Monitor LSRS buffer pool guidance (if contained in the Q2 release) and evaluate whether method adjustments are necessary.
- Elevate disaggregated GHG metrics from downloadable file to main Fieldprint Project Report body in future Fieldprint revisions.

LSRS Considerations for Companies Using Fieldprint Platform for their S1 Inventory

Companies reporting land sector emissions as part of their Scope 1 (S1) GHG inventory, typically agricultural operators, or vertically integrated food companies with owned farming operations, face a distinct set of considerations when using Fieldprint Platform v.5 to support LSRS alignment. Unlike S3 users who must navigate supply chain traceability to attribute emissions from purchased agricultural goods, S1 users work within their own organizational boundary. Boundary determination follows the GHG Protocol Corporate Standard’s three organizational boundary approaches (operational control, equity share, or financial control), which must be resolved before any tool application.

The central technical challenge for this group is ensuring that Fieldprint Platform outputs are correctly disaggregated to avoid double counting (Figure 4). Fieldprint Platform computes a field-level carbon intensity that bundles multiple emission source categories: soil N₂O and carbon stock changes (Scope 1 land sector); direct fuel combustion such as diesel and propane that would already be captured in this user group’s Scope 1 energy emissions; purchased electricity (Scope 2); and upstream manufacturing emissions embedded in inputs like fertilizers and seeds (Scope 3 Category 1). Scope 1 land sector reporting under LSRS should draw only on the biogenic and land-sector portion of Fieldprint Platform outputs; primarily soil N₂O, soil organic carbon changes, and any land use change CO₂, while explicitly excluding the energy and upstream manufacturing components already accounted for elsewhere in the inventory (with direct data specific to the operation rather than upstream emissions factors used by the Fieldprint Platform).

Land management production emissions accounted for by Fieldprint Platform include emissions S1 users would account for elsewhere in their inventories using operation-specific data rather than Fieldprint EFs.

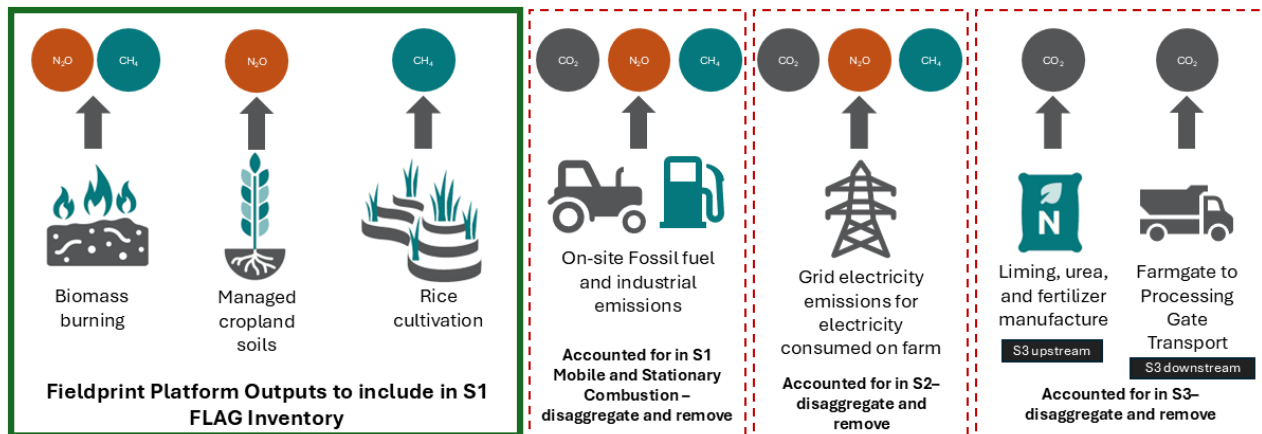


Figure 4. Fieldprint Platform can support members with S1 FLAG emissions account for them, but users must take care to remove other components included in Fieldprint outputs that will be accounted for elsewhere in their inventories.

LSRS requirements for separate gas-level reporting (CO₂, CH₄, N₂O) and land area disclosure apply equally to S1 users, as does vintage tracking for any carbon removals claimed within the operational boundary. Compared to S3 users, S1 users benefit from direct data access and generally better data quality. If they take care to interpret Fieldprint Platform outputs to avoid double counting of their S1 or S2 energy emissions, the Fieldprint Platform outputs are well aligned with all LSRS requirements that apply to them.

Table 12. Additional or modified requirements for Scope 1 inventory users relative to Scope 3 inventory users

REQUIREMENT	SOURCE	NOTES ON FIELDPRINT PLATFORM FIT
Organizational boundary determination prior to tool application (operational control, equity share, or financial control)	GHG Protocol Corporate Standard; LSRS	Boundary approach must be established before Fieldprint Platform is applied; tool scope is determined by which land parcels fall within the chosen boundary
Separate S1 land sector reporting: biogenic CO ₂ from land use change, soil N ₂ O, soil organic carbon stock change, CH ₄ from manure or land use	LSRS; GHG Protocol Corporate Standard	Fieldprint Platform outputs for soil N ₂ O and carbon metrics partially map to S1 land sector; outputs must be disaggregated by emission source category (e.g. LUC vs SOC stock change) before use. It is critical that outputs be disaggregated.
Exclusion of direct on-farm energy combustion (diesel, propane, natural gas) and on-site electricity from FPC land sector outputs to avoid double counting with S1 energy and S2	GHG Protocol Corporate Standard (Scope boundary rules)	Critical parsing step: Fieldprint Platform bundles fuel combustion and electricity into total carbon intensity; these must be identified and removed before applying outputs to the S1 land sector boundary
Exclusion of upstream manufacturing emissions (fertilizer, seed, pesticide manufacturing and distribution) from S1 land sector. These are S3 Category 1.	GHG Protocol Corporate Standard	Fieldprint Platform includes upstream input manufacturing in field carbon intensity; requires deliberate disaggregation to avoid misclassifying S3 upstream emissions as S1
Higher-tier or direct measurement methods preferred over industry-average emission factors for owned and operated land	GHG Protocol Corporate Standard; LSRS	Fieldprint Platform uses activity-based calculation with default EFs; acceptable as Tier 1 but primary data is preferable for owned/operated land where access is possible

Table 13. S3 Inventory requirements that do not apply to S1 users

SCOPE 3 REQUIREMENT	WHY NOT APPLICABLE FOR SCOPE 1 USERS
Supply chain traceability and supplier engagement to collect field-level data	S1 covers owned or operated land—the reporting entity has direct data access and no supply chain intermediaries
Impact factor (IF) or emissions factor (EF) applied to purchased agricultural goods	S1 involves direct measurement or estimation from own operations, not attribution of purchased goods to a supply chain buyer
Allocation of field-level emissions across multiple buyers or customers of the same production system	S1 emissions are attributed entirely to the owning entity under the organizational boundary; multi-buyer allocation is not applicable

Using the Fieldprint Platform for Project Accounting

Many Field to Market members and users of Fieldprint Platform are likely interested in evaluating the GHG impacts of actions, which requires project-based accounting methods (also sometimes called intervention accounting). The fundamental distinction between inventory and project accounting is that inventory accounting asks “what did this supply chain or operation emit?” while project accounting asks “what would have happened without this intervention, and how much did the project change that trajectory?” Fieldprint Platform is built for the former ([Figure 5](#), left side). However, Fieldprint Platform’s underlying, field-level, annual calculation capabilities could be leveraged to support project accounting, likely with additional support from a QDMP ([Figure 5](#), right side).

LSRS is primarily oriented towards the unique land sector and removal accounting requirements for corporate inventory accounting. However, Chapter 16 addresses project or intervention accounting requirements, where projects or interventions are land-related, and Chapter 18 addresses the considerations for entities engaged in both inventory and intervention accounting. Entities that want to evaluate the GHG impacts of actions, like increasing adoption of cover crops or reducing tillage, are required by LSRS to use intervention or project methods to account for them (see [Figure 5](#) below). These requirements are primarily covered in other standards, but LSRS does include an additional reporting requirement, as well as requirements 29 and 30, to prevent double counting and uphold higher levels of assurance (independent validation and verification are required for insets or offsets).

The most critical requirement for project accounting is credible baseline scenario construction (LSRS requirement 29, p.102). With additional support from a QDMP, the Fieldprint Platform could potentially be used as a calculation engine to generate these scenarios. LSRS project accounting, like all credible carbon market protocols, requires a counterfactual baseline representing emissions and removals that would have occurred absent the project or intervention. These are typically derived from historical practices, regional averages, or regulatory defaults. Fieldprint Platform is an annual, field-level calculator, not a scenario modeling tool, and doesn’t currently generate this counterfactual. To be used in this way, QDMPs would need to create a separate counterfactual version of the project where the business-as-usual practices would be modeled on the same fields in parallel through time. The difference between these threads produces the net GHG effect of the project or intervention required under LSRS Chapter 16 ([Figure 5](#)). LSRS also stipulates that project developers must also demonstrate additionality that credits represent emissions reductions or removals beyond what would have occurred anyway, (e.g., that the practices modeled in the baseline scenario are consistent with regional norms at that point in time, not just historical practices) with data and through calculations Fieldprint Platform does not currently support inside the tool.

The most direct path to using Fieldprint Platform outputs for project accounting, including inset and offset credit generation, is a QDMP-led implementation that leverages the Platform’s calculation engine to construct two parallel modeling threads: the business-as-usual counterfactual baseline, and the practice-change scenario. Several of Field to Market’s QDMP members already have the external data capabilities required to support this implementation. With additional investment in the Platform implementation, this counterfactual modeling capability could be built directly into the tool, further reducing the analytical burden on project developers.

LSRS Requirement 29 also sets a substantially higher assurance bar than inventory accounting: independent verification and validation are mandatory for projects generating insets or offsets, rather than the mere disclosure of whether assurance was obtained. Companies engaged in both Scope 3 inventory accounting and projects/intervention accounting must calculate Scope 3 emissions and removals “independent of any issued or retired GHG credits within the company’s operations or value chain” AND “separately calculate Scope...3 emission values (and Scope...3 removals values, if applicable) that are adjusted for GHG credits issued within the company’s operations or value chain, by adding credited emissions reductions to emissions and subtracting credited removals from removals” (p.102, LSRS). These are things that the level of detail provided by Fieldprint Platform (separate emission and removal reporting) can support, but users must do outside of the tool itself. On the compatible side, LSRS provisions for permanence mechanisms (including buffer pool contributions) and its endorsement of approved quantification methodologies are supported by Fieldprint platform’s underlying methods (e.g., IPCC Tier 1 for N₂O, IPCC Tier 2 for CH₄ from rice, and Tier 3 SWAT+ for soil C) making the Field-

print Platform the potential source of valuable, LSRS-required components within a broader recognized protocol, even if Fieldprint Platform alone does not support credit issuance.

Table 14. Additional or modified requirements for project or intervention accounting and/or reporting relative to S3 inventory users

REQUIREMENT	SOURCE	NOTES ON FIELDPRINT PLATFORM FIT
Reporting methods used to evaluate the GHG impacts of actions: If companies estimate and report the GHG impacts of specific actions separately from the inventory, they shall disclose the data sources, methods, and assumptions used to quantify the impact(s) of the evaluated action(s), the assessment boundary, the assessment time period, whether it is an ex-ante and/or ex-post assessment, and whether the results have been third-party verified.	p.92, LSRS, requirement	Fieldprint Platform provides sufficient documentation to support this reporting requirement unique to reporting the impact of actions (separate from the inventory, covered in Ch. 16 of LSRS).
Credible baseline scenario construction: practices and management that would have existed absent the project (a counterfactual)	LSRS (p. 102. project accounting provisions); program standards (VCS, ACR, CAR, etc.)	Fieldprint Platform is not currently configured to run counterfactual scenarios as a built in workflow. QDMPs can leverage Fieldprint Platform’s SWAT+ calculation engine and multi-year field data storage capabilities to construct counterfactual scenarios and calculate intervention or project effects outside the tool.
Additionality demonstration: emissions reductions or removals must exceed what would have occurred without the project	LSRS p.102; program standards	Fieldprint Platform does not execute additionality tests. A QDMP could conduct additional data collection and use the tool as a calculation engine to support additionality analyses.
Credit volume = difference between project emissions/removals and credible baseline in the reporting year (fundamental accounting equation, Ch. 16, figure 16.1 on p. 91, LSRS, Figure 5 below)	LSRS p.91; program standards	Fieldprint Platform produces annual, field-level quantification and supports comparison of current year to base year emissions (left-hand side of Figure 5). It does not compare baseline scenarios vs. project trajectories over time or calculate credit volumes (right-hand side of Figure 5). A QDMP could leverage Fieldprint’s underlying calculation capabilities to support intervention or project accounting through a non-standard application of the tool.
Permanence mechanisms including buffer pool contribution to address reversal risk (Requirement 29)	LSRS p.102; program standards	LSRS addresses permanence requirements; program registry buffer pool rules apply. Fieldprint Platform does not directly support program registry-specific buffer pool calculations but does not conflict with these provisions and allows user specification of pool attributes.

<p>Leakage assessment and mitigation: activity-shifting leakage (practices displaced outside project boundary) and market leakage (Requirement 29)</p>	<p>LSRS p.102; program standards</p>	<p>Fieldprint Platform has no leakage functionality; separate spatial and market analysis is required. Fieldprint Platform does support tracking yields via its land use indicator, which, if yields are sustained or improved, can be used to document the absence of leakage.</p>
<p>Independent verification AND validation required (LSRS Requirement 29)</p>	<p>LSRS Requirement 29 (p.102)</p>	<p>Substantially higher assurance bar than inventory accounting; both validation (ex-ante methodology review) and verification (ex-post data and results review) are mandatory. Not a disclosure-only requirement of assurance like LSRS requires for inventories. The documentation supported by the Fieldprint Platform can be helpful in facilitating independent validation and verification, but both processes are necessarily independent of any tool.</p>
<p>Crediting period definition with temporal tracking of project vs. baseline trajectories</p>	<p>Program standards</p>	<p>Fieldprint Platform does calculate SOC stocks and fluxes over time, but users would need to extract the data from Excel file downloads and re-interpret it compared to the counterfactual scenario.</p>
<p>Use of an approved or recognized quantification methodology for credit issuance</p>	<p>LSRS p.102; program standards</p>	<p>Fieldprint Platform alone is not a recognized credit quantification methodology; its underlying methods (IPCC Tier 1 for N2O, IPCC Tier 2 for CH4 from rice, IPCC Tier 3 SWAT+ for SOC) may qualify as components within an approved protocol registered with a recognized body.</p>
<p>Monitoring plan and ongoing MRV framework</p>	<p>Program standards</p>	<p>Fieldprint Platform can contribute annual monitoring data inputs, but it does not constitute a complete MRV system; additional monitoring documentation and reporting procedures are required. Field to Market has several qualified data management partner members who can assist corporations with this.</p>

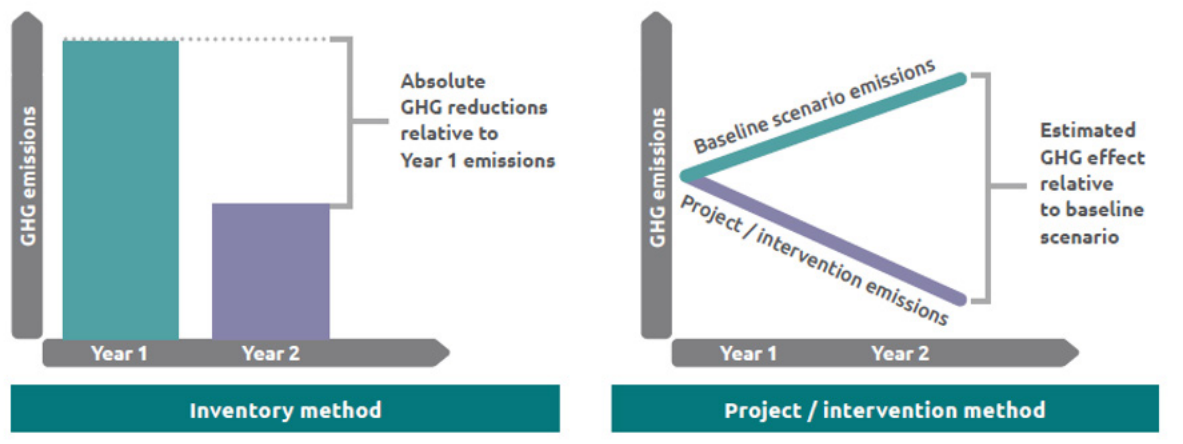


Figure 5. Reproduction of GHG Protocol LSRS figure comparing inventory vs. project or intervention accounting (p.91, Figure 16.1)

LSRS Considerations for Fieldprint Platform Users Using Outputs for Cradle-to-Gate Product Carbon Footprints

Companies generating product carbon footprints (PCFs) under the GHG Protocol Product Standard, ISO 14067, or the PACT methodology are in some respects the user group best positioned to leverage Fieldprint Platform within the LSRS framework. The accounting logic is structurally similar to Scope 3 Category 1 inventory accounting: both require an impact factor (IF) or emissions factor (EF) applied to purchased agricultural goods, and both draw on field-level data of the kind Fieldprint Platform provides. The LSRS requirements for “land emissions, removals, land use, land carbon leakage, gross CO₂ fluxes, product carbon storage, and reversals” (p. 20) apply similarly across both use cases.

PCF users also face additional requirements from their reference standards that are not in scope for inventory users, particularly ISO 14067’s requirements for uncertainty assessment and data quality scoring, and PACT’s specific documentation templates. These layers sit on top of LSRS requirements rather than replacing them. Fieldprint Platform outputs should be treated as a strong core data source for the agricultural production stage but supplementary data quality documentation will be needed to achieve full ISO 14067 or PACT compliance. Compared to Scope 3 users, PCF users also work within a product life cycle stage framework rather than a Scope 1/2/3 organizational boundary framework. This difference in structure affects how Fieldprint Platform outputs are contextualized but not the fundamental field-level data requirements. Per the LSRS, “Companies preparing a Scope 3 GHG inventory may follow the Product Standard to account for product-level GHG emissions. When applying the Product Standard, companies shall apply the accounting and reporting requirements in the [LSRS].” (p.20)

There are no additional LSRS-specific requirements for PCF accounting, beyond what is required for S3 use (described exhaustively above).

Key Sources Reviewed:

1. [GHG Protocol LSRS v1.0](#) (published, January 2026)
2. [Fieldprint Platform v5.0 Methods Documentation](#) (provided by Field to Market, March 2026)
3. Field to Market Fieldprint Platform SOC Claiming & Monitoring Framework (draft provided by Field to Market, March 2026)
4. Field to Market Fieldprint Platform Uncertainty Quantification Methodology for Agricultural GHG Projects (draft provided by Field to Market, March 2026)
5. [Sample Fieldprint Project Report Output Report](#) (provided by Field to Market, March 2026)
6. [PACT Methodology, April 30, 2025, Version 3.0](#) (last updated, December 2025)
7. ISO 14067:2018(E) Greenhouse gases – Carbon footprint of products – requirements and guidelines for quantification (last updated, August 2018; last reviewed and confirmed, 2024)



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