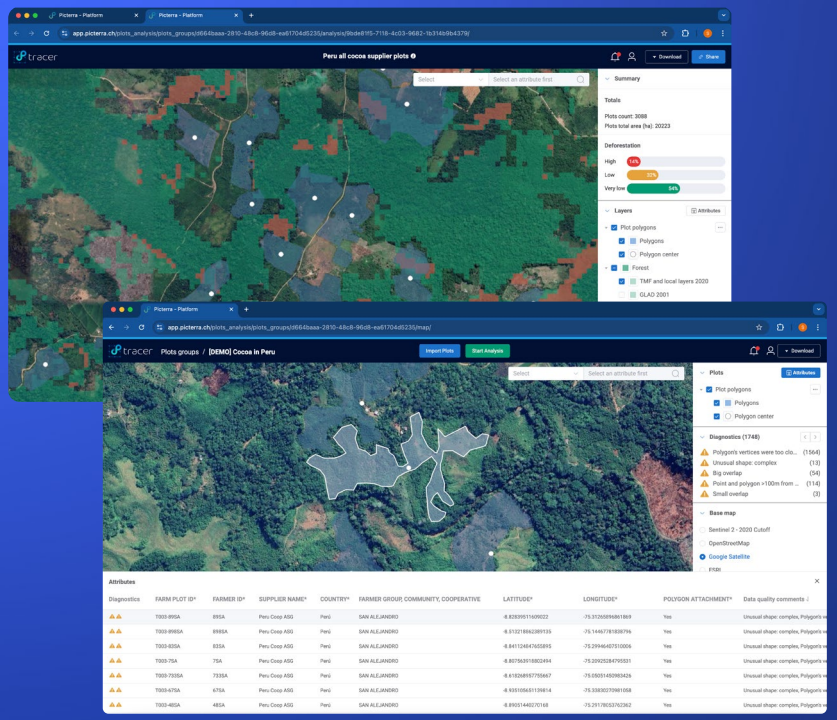
Picterra

Navigate EUDR compliance with confidence

Achieve EUDR compliance with confidence using Picterra's GeoAI solutions

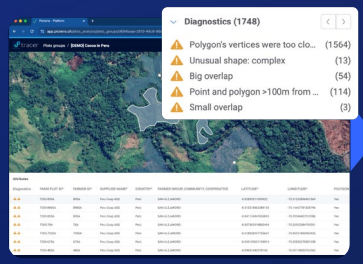
The EUDR regulation is poised to reshape global supply chains for key commodities, including coffee, cocoa, palm oil, wood, soy, rubber or beef and leather. Companies importing or trading these commodities now face new challenges, requiring them to urgently establish or update their due diligence systems. This entails enhancing the precision of tracing the exact origin of their products, meticulously documenting their supply chains, and conducting thorough deforestation risk assessments and mitigation where necessary. These requirements translate into a complex process that necessitates precise and manageable supply chain mapping, all while navigating the evolving assessment parameters over time and across different locations.

Geospatial AI is an indispensable asset for EUDR compliance, expertly processing extensive satellite and drone imagery data to extract the necessary insights.

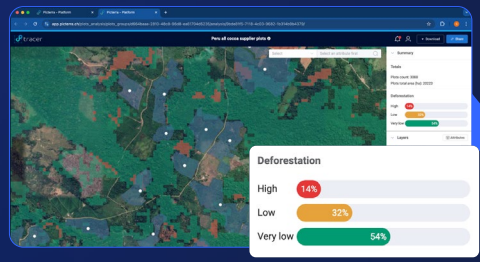


With Picterra's EUDR Risk Assessment Solution powered by Picterra Tracer, we simplify the complexities of managing accurate geolocation data for your supply chain while ensuring precision and reliability through a rigorous data quality assessment process. Picterra Tracer serves as a robust platform to verify land plots for deforestation risks and enable transparent, auditable data collection. With advanced data ingestion and analysis, it automates risk assessments and provides clear, actionable insights for timely, accurate regulatory submissions. The flexible API allows for modular integration, ensuring compliance across different stages of the supply chain while maintaining high data quality standards.

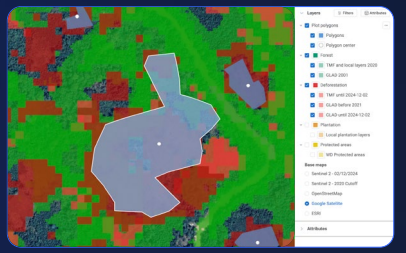
1. Farm plots data



2. Data quality verification
+30 stress points



3. Geolocation data classification



4. Aggregated & unified supply chain database

Single source of truth

- Consolidated (QA/QC) database
- **Maintained by Picterra** (data consistency overtime)
- Unique ID to match points with polygons and shipments
- Deforestation risk assessment

How do we achieve this?

Let's dive into the key challenges of each step of the process

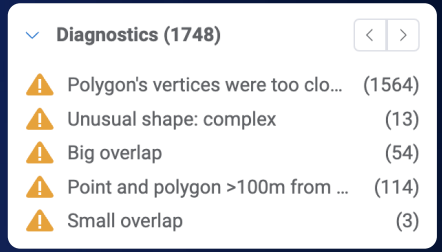
- **Supplier data aggregation, quality verification and management**
- **Quick, precise and scalable digitization of plots**
- **Centralised, quality-verified database of farm plots**
- **Deforestation risk assessment for EUDR compliance**
- **Precise deforestation analysis**
- **Risk assessment report and DDS submission**
- **Customer reference**

Supplier data aggregation, quality verification and management

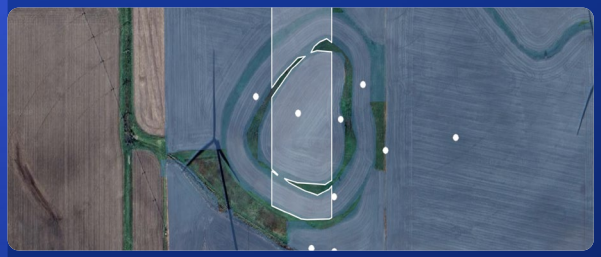
Key challenges	
Complexity of data collection	Collecting data from various suppliers is challenging ie. due to different file formats like CSV, KML, KMZ, shapefiles, DWG, DXF, or even PDF causing inconsistencies.
Data quality issues and unification needs	Suppliers provide varying data types incl. points and polygons requiring unification for effective analysis. Also, both, bulk imports of data or manual data share processes are prone to mistakes and variety of common errors ie. typos in decimal values, inverted data points (Latitude and Longitude), non-unique IDs, mismatched points and polygons, and incomplete data, impacting reliability and usability.
Our solution	
Efficient data ingestion	We ensure data is readable and GIS-ready, handling inputs from various formats seamlessly.
Aggregation and unification	Our solution consolidates files from any supplier into a unified database, regardless of format or origin.
Quality checking and correction	Rigorous checks clean and correct common data errors, maintaining high data integrity through automated workflows.
Targeted auditing and issue flagging	Our system help identify issues needing supplier attention and auditing, with each data point undergoing 30+ quality stress tests.
AI-Powered data extraction	AI models created in Picterra can be used to extract points and polygons from geospatial imagery also when no data is available from the suppliers to fill any potential gaps.

Rigorous supplier data quality verification and correction.

Picterra Tracer automates the detection and correction of common data errors, such as misplaced points due to projection issues, manual entry mistakes, wrong geometries or self intersections. The platform also automatically converts polygons with holes into multi-polygons to ensure compliance with EU TRACES data requirements under the EUDR regulation.



Examples of data errors



Holes in the polygon

Complex unusual shape

Polygon overlap

Point/polygon outside the country

No polygon in plot > 4ha

Duplicate plot ID

Quick, precise & scalable digitization of plots

Key challenges

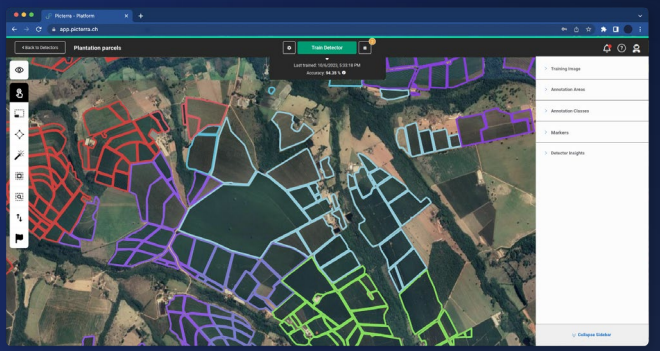
Data reliability	Lack of reliable or complete data from the supply chain, hindering accurate mapping of farming plots and activities necessary for compliance, sustainability, and regulatory reporting.
Resource limitations	Often insufficient internal know-how or resources to conduct large-scale geospatial analysis, including efficient imagery selection and application of geoAI techniques, requiring an alternative to manual monitoring processes.

Our solution

Geospatial AI models	With Picterra you can utilize machine learning detection and segmentation models to map plots quickly and at scale, tailoring models to specific crops, locations, and contexts.
No-code UI	We provide a no-code user interface with advanced tools, enabling non-GIS experts to develop and run analysis models directly.

Our solution in practice

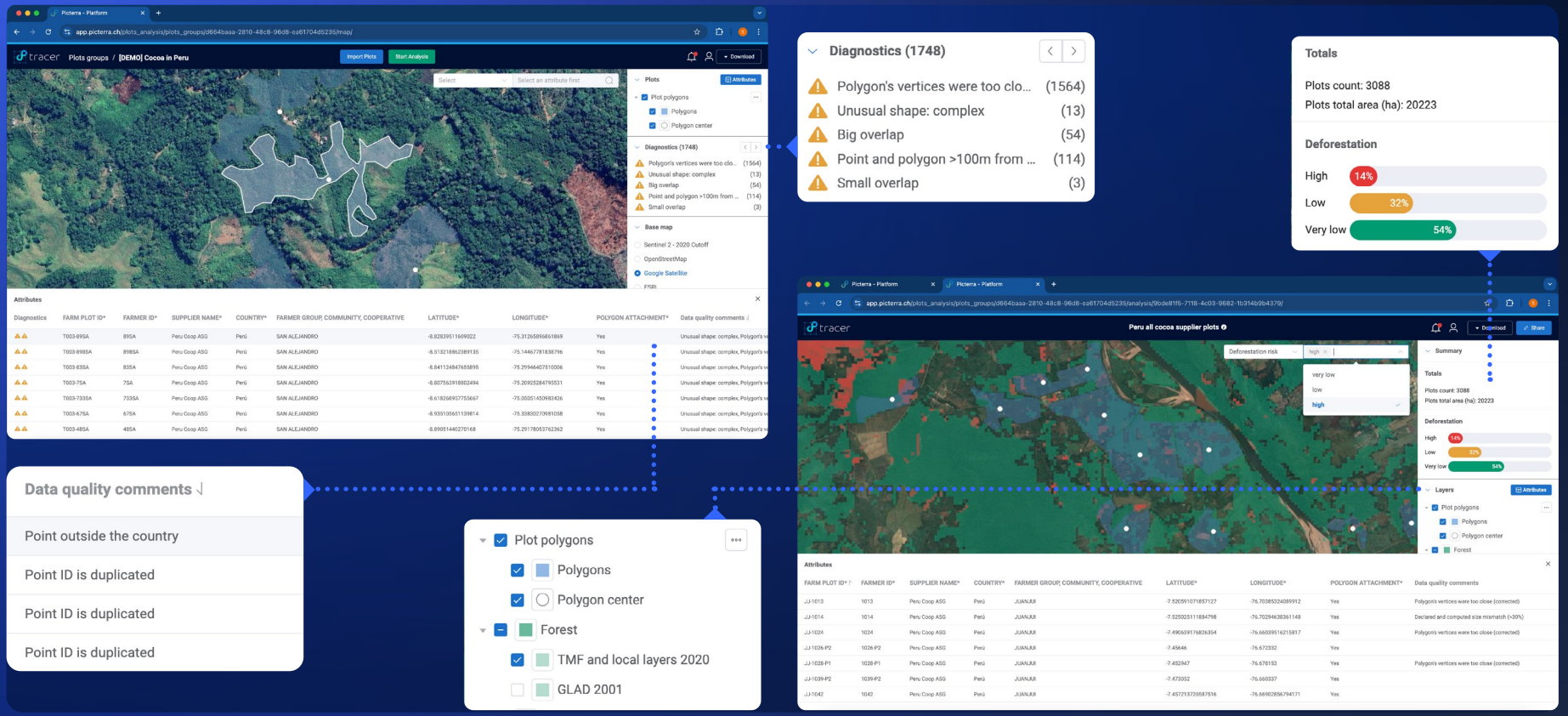
Mapping cocoa farms and classifying farming practices for one of the largest snack companies in the world operating in over 80 countries.



Automating the extraction of coffee plot boundaries and mapping sustainability practices on the single-plot level for global producers of premium brand coffee and services enhancing the coffee experience.

Centralised, quality-verified database of farm plots

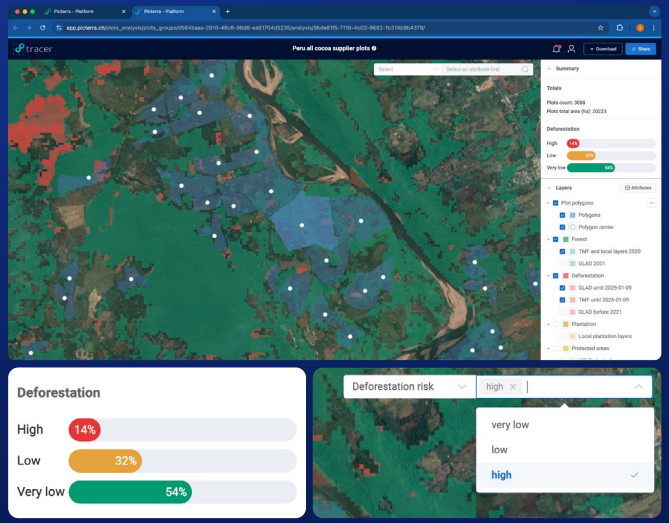
As a result, we provide a quality-verified, aggregated database of farm plots along with detailed plot maps, easily accessible on the Picterra platform, enabling seamless maintenance and ingestion of new data. As suppliers contribute updates to the database, the data undergoes thorough verification, cleaning, and updating processes to consistently maintain a high-quality database.



Deforestation risk assessment for EUDR compliance

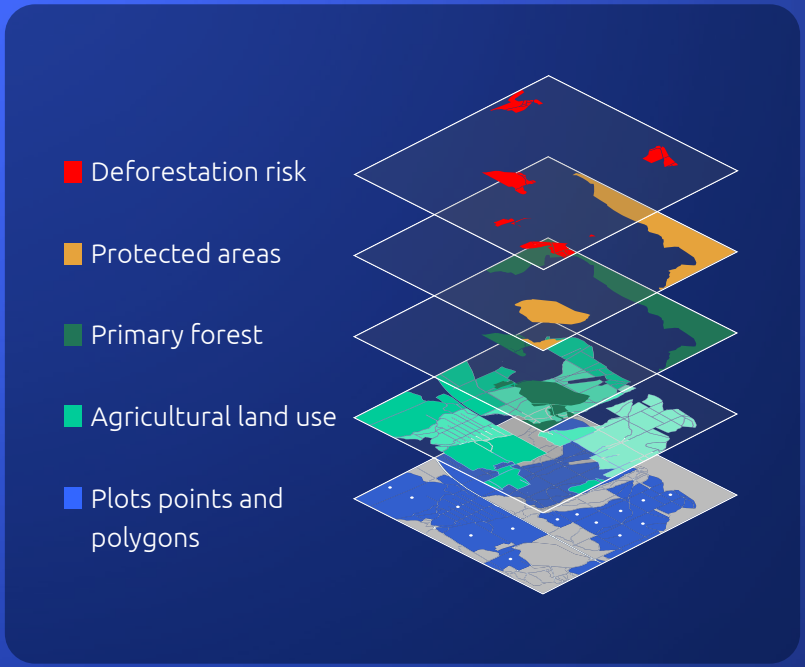
Key challenges

Supplier data quality and management	Ensuring accurate collection, ingestion, and verification of supplier geolocation data is critical as it is a core baseline determining the precision and accuracy of the analysis.
Uncertainty in compliance verification	With new regulations and no established standards, there's uncertainty in conducting continuous deforestation compliance assessments.
Lack of unified reference data	Lack of unified reference data: Public deforestation data sources are inconsistent and not unified, potentially leading to inaccurate compliance assessments.



Our solution

Verified geolocation data	We examine geolocation data points and polygons of farm plots to meet deforestation compliance requirements, classifying them into Low, Medium, and High-risk categories.
Diversified and contextualized reference layers	Using diverse public reference layers (e.g., primary forest, protected forest areas, plantation and agricultural land use, global deforestation/forest degradation layers) as a starting point, we derive deforestation risk areas and visualize the results in our platform's user interface.

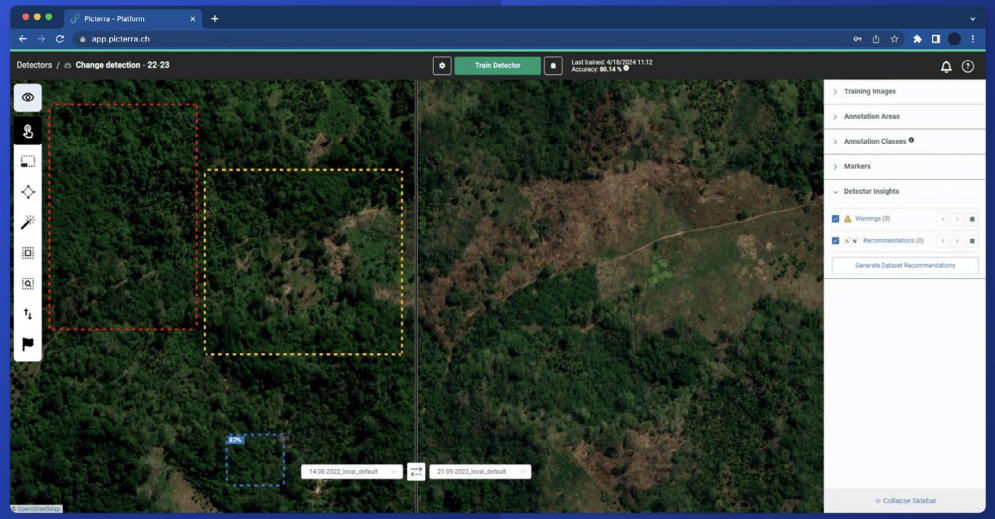


Diversified and contextualized reference layers

Instead of using single datasets or open data as-is, our analysis combines and contextualizes multiple layers of information, including different forest types, plantations, agricultural use, protected and urban areas, and deforestation data. This comprehensive approach ensures a thorough understanding and cross-checking of land use and its changes.

With the EUDR regulation, the reliability and compliance of open datasets like Global Forest Watch and others have been debated. While these datasets are great for global stocktaking ,they aren't by themselves alone sufficient for EUDR-compliant due diligence at the plot level.

EUDR Methodology

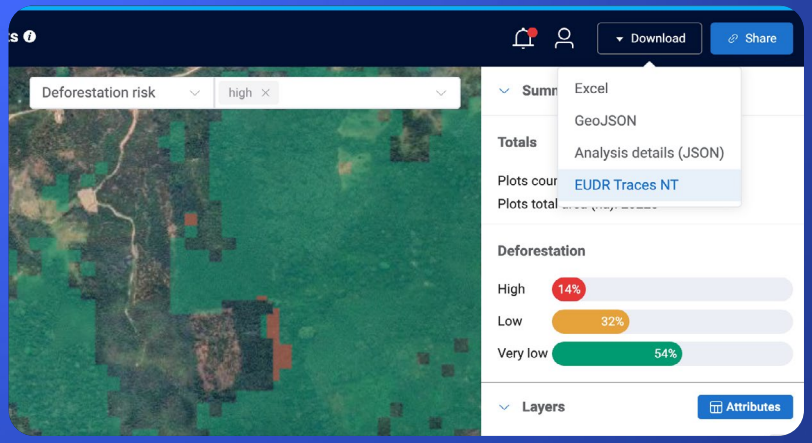


Precise deforestation analysis

For high-risk areas, we enhance our analysis with high temporal and spatial deforestation data and precision analysis using machine learning models. Picterra's models, tailored to specific crops and geographies, can scale over large areas and provide detailed context for tree cover loss.

By leveraging high-resolution satellite imagery, we eliminate ambiguities from public data layers. Our models are transparent and auditable, ensuring consistent and reliable deforestation risk analysis, and setting the gold standard in the industry.

Picterra offers flexible, periodic evaluations or ad-hoc assessments, meeting the demands of swift analysis for timely deals.



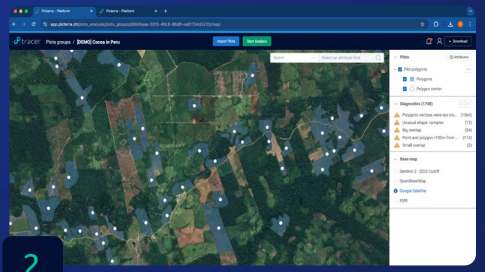
Risk assessment report

The outcome: detailed and comprehensive risk assessment report. You also have the option to subscribe to automated, periodic assessment reports, ensuring continual compliance and monitoring. This keeps your supply chain aligned with the ever-evolving landscape of regulations and sustainability standards.

1

Data collection and supplier data quality verification

- Database: GPS with attributes
- Spatial visualization and quality check
- Plots polygons extraction



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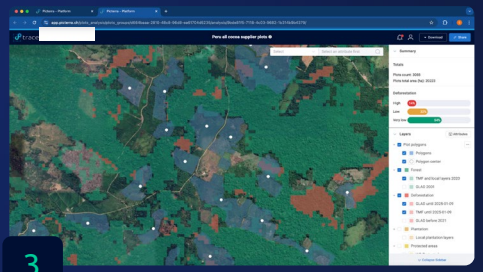
Risk assessment

- Deforestation risk assessment
- Based on multi source imagery
- And public layers (forest and protected area)



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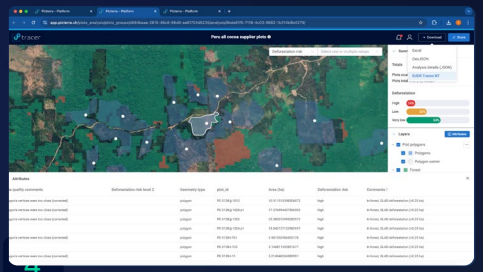
Precise localised monitoring

- Periodic monitoring of regions of interest based on risk classification
- Alert system
- Continuous update of database and plots polygons



4

Final report

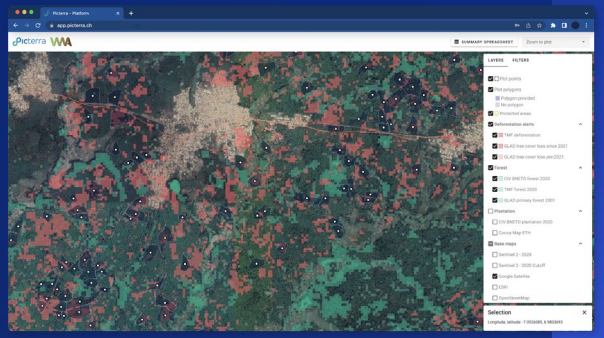
- comprehensive risk assessment report for each import batch
- option to set up periodic, automated assessment reports workflows

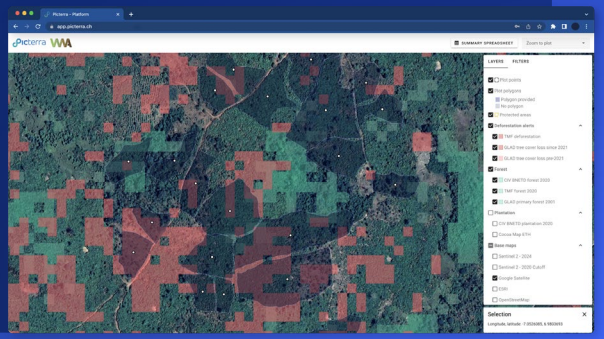
Customer reference

Deforestation change detection and risk assessment for EUDR compliance

Walter Matter, a century-old family-owned, independent merchant specialized in coffee and cocoa trading needed a reliable solution to ensure their supply chain adhered to EUDR requirements.

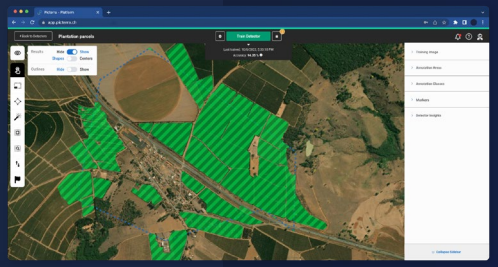
Data input	Geolocation points & polygons of farm plots from the suppliers ie. >6,500 plots assessed in Ivory Coast
Picterra solution	• Rigorous data quality check and supply chain database management • Deforestation risk analysis & precision monitoring where required ie. for identified high risk areas, with use of Picterra change detection models • Comprehensive risk assessment report • Enabling fast, efficient and structured due diligence process with suppliers and end customers

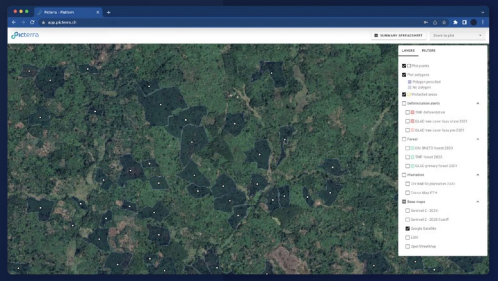


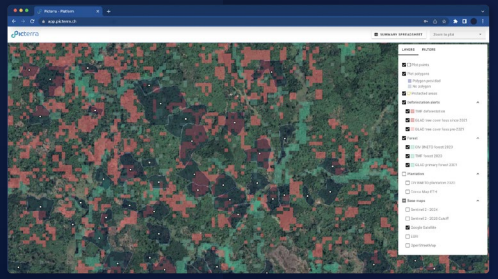


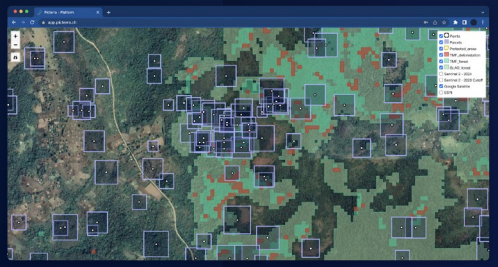
"Picterra's advanced geospatial technology empowers us to achieve EUDR compliance by providing precise deforestation risk assessments and greater supply chain transparency. This partnership is a crucial stepping stone in our responsible sourcing journey.

Judith Beyeler, Sustainability Manager at Walter Matter SA









Why Picterra?

Comprehensive Geospatial AI Solutions

Picterra offers quick, precise, and scalable digitization of plots and monitoring of farming practices at the plot level. Our geospatial AI models are tailored to specific crops and regions, enabling accurate mapping and analysis. This ensures compliance, sustainability, and regulatory reporting needs are met efficiently.

Superior data management and quality verification

We streamline the aggregation and unification of supplier data from various formats, ensuring high data integrity. Our rigorous quality checks and automated workflows correct common errors and flag issues for targeted auditing, maintaining a reliable and consistent database for informed decision-making.

Advanced deforestation risk assessment

Picterra leverages high-resolution satellite imagery and machine learning models to provide precise deforestation risk analysis. Our transparent, auditable models eliminate false positives, ensuring compliance with EUDR regulations and setting the gold standard in deforestation risk management.

Find out more at

picterra.ch