

INNOVATION REPORT ON DEFORESTATION-FREE SUPPLY CHAINS KEY INSIGHTS AT A GLANCE

This document offers an executive summary of the 'Innovation Report on Deforestation-Free Supply Chains', prepared by the **EMMA4EU project** partners and accessible at emma4eu.eu. It's tailored to provide policymakers, competent public authorities, corporate sustainability managers, environmental NGOs, media and students with a clear glimpse into innovative tools and practices for establishing deforestation-free supply chains. The full report describes and assesses **43 practical case studies** of tools and processes that encompass enforcement, corporate sustainability and technological solutions for sustainable and legal supply chain management. Each case is thoroughly assessed against key evaluation criteria such as effectiveness, efficiency, transparency, feasibility, reflexivity, limitations, and innovation. The report is informed by interviews, literature review and targeted studies and it offers cross-case comparison to spotlight key aspects and innovations, making it an invaluable resource for experts and students engaged in the supply chain sector.

The EMMA4EU project, co-funded by the European Commission, aims to tackle embedded deforestation by connecting higher education institutions, businesses and NGOs and creating new opportunities for capacity development, training and knowledge sharing.

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CONTEXT

The European Union's Regulation on Deforestation-Free Products (EUDR), adopted in 2023, is a key legislative initiative aimed at reducing the EU's impact on global deforestation. It requires companies to meet strict due diligence standards on legality and sustainability, for forest-risk commodities such as **rubber, wood, cocoa, coffee, palm oil, soy, and beef**. This regulation reflects the EU's commitment to environmental stewardship integrating seamlessly with broader Green Deal objectives and enhancing previous regulations such as the EU Timber Regulation (EUTR). Despite recent delays related to its implementation, the EUDR is expected to drive significant changes across transnational supply chains and foster enhanced sustainability and legality standards that can enhance ecological and socio-economic benefits. For this, a clear guidance and innovative knowledge about enforcement, corporate sustainability and technological solutions is still needed. This report aims to narrow these knowledge gaps.



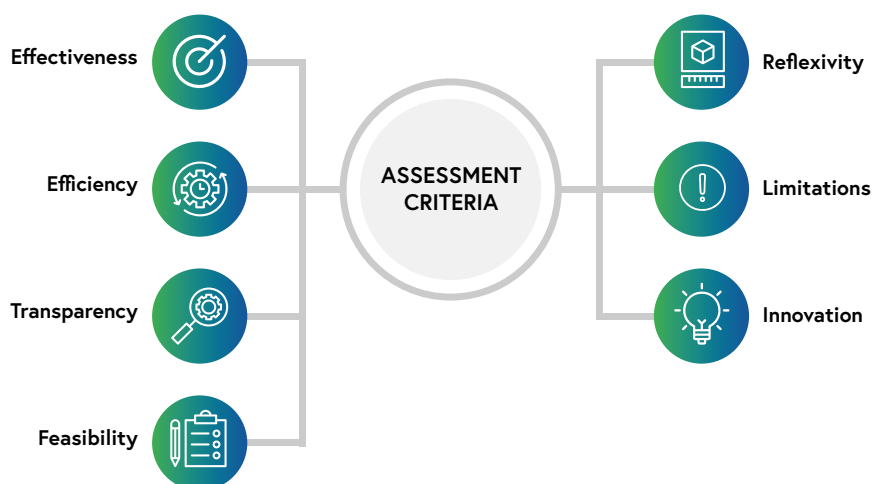
EUDR product scope



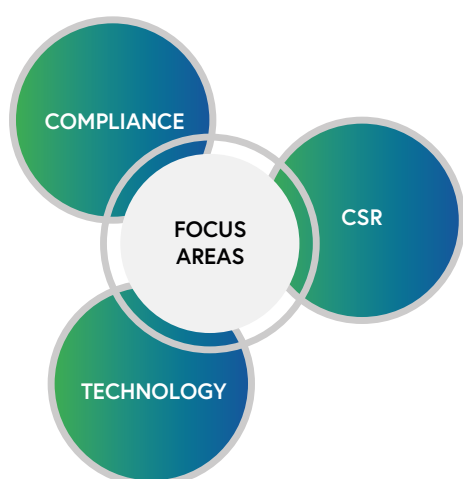
THE REPORT

The "Innovation Report on Deforestation-Free Supply Chains" offers essential guidance on EUDR implementation and broadens the scope to include other interrelated dimensions of supply chain management such as corporate social responsibility (CSR), and technological solutions. The Report contains 43 case studies as key examples from a broader range of actions by both public and private entities preparing for the effective and efficient implementation of this new regulation. Each case study is rigorously evaluated against a selected set of criteria developed by project partners from both businesses and academia perspectives. By offering insights into these interrelated areas, it guides stakeholders in effectively embedding sustainability throughout their operations.

The Report provides a comprehensive evaluation of enforcement, corporate sustainability and technological practices aimed at establishing deforestation-free supply chains (DFSC), incorporating both successful and less successful cases to ensure a more balanced perspective. Using a harmonised analytical framework based on scientific literature and established policy evaluation criteria, it examines each practice in terms of **effectiveness, efficiency, transparency, feasibility, reflexivity, limitations, and innovation.**



Overview of Evaluation Criteria



Emma4EU focus areas

The strengths and weaknesses of each case study are summarized and an overall assessment ('relevant,' 'relevant with identified limitations,' 'not directly related to the EUDR,' or 'with relevant limitations,') is provided to the reader. All practical cases are also linked to three EMMA4EU focus areas: **Compliance, Corporate Social Responsibility, and Technology.** The whole evaluation not only assesses the innovative value of each practice but also facilitates cross-case comparisons, lessons-drawing from non-relevant or less successful practices draws overarching conclusions.

Disclaimer: The editorial authors of this report do not necessarily coincide views and opinions expressed by the authors of each case study. The editorial authors cannot be held responsible for them, nor for factual errors that might exist in the case study formulation. The respective authors of the case studies are mentioned in the introduction box for each case study and are accountable for the case study content.



KEY RESULTS

The report provides systematic knowledge about a range of key practices that bear the potential to support deforestation-free supply chains (DFSC) based on **risk-based approach**, integrating advanced **technological requirements** such as geolocation, and adopting a **comprehensive regulatory framework** that encompasses **both legality and sustainability**. Grounded in the **EU Green Deal** and building upon experiences from the **EUTR** and the **US Lacey Act**, the EUDR sets higher global standards for legal and sustainable forestry and agricultural practices. While challenges such as socio-economic and trade impacts can be expected during EUDR's implementation, trade, clearer technical guidance can help stakeholders adapt to the new standards. This can contribute to paving the way for potential environmental, social, and economic benefits across producer and consumer regions.

Key Objectives

- Promote legal & sustainable forestry & agriculture
- Establish higher global trade standards
- Ensure compliance & traceability

Challenges & Adaptation Needs

- Socio-economic & trade impacts during implementation
- Need for clearer technical guidance for stakeholders
- Balancing regulation & market access

Additionally, the report stresses the need for **collaborative research and trans-disciplinary knowledge** to precisely define key terms, clarify concepts, and enhance data quality for effective EUDR compliance. This report finds out that the EUDR has spurred the development of innovative tools and technologies, enhanced by standardised definitions that improve their integration and functionality. The EUDR **governance model** works with a range of market correcting and market supporting measures that include a conditional market ban for non-sustainable and illegal commodities, risk based approach to due diligence, benchmarking and information systems and multistakeholder cooperation processes with partner countries to foster innovation. The report provides a fresh assessment of the strengths and weaknesses of these compliance tools.

Main marketing correcting and supporting measures

- Market ban for non-sustainable/illegal commodities
- Risk-based due diligence
- Benchmarking & informations systems
- Cooperation processes with partner counties

During the **implementation phase**, professionals need to become proficient with advanced tools for **risk assessment, mapping, and data management**. Policymakers are urged to support technologies like **forensic methods** that trace product origins to enhance traceability and compliance. While collaborative platforms are instrumental in maintaining **legal compliance and traceability**, certain practices, such as excluding non-compliant suppliers, may require revaluation to prevent adverse social and environmental impacts.

From a **technological perspective**, the report values tools like **data mining, supply chain mapping, and deforestation risk monitoring**. Emerging technologies such as **blockchain and AI** are bringing new solutions; however, their deployment should be critically assessed for cost, efficiency, and accountability. Technology also plays a crucial role in ensuring legal compliance, particularly through **labor supply mapping and forced labor screening**.

In terms of **corporate social responsibility (CSR)**, the report underscores the **financial sector's** significant role in promoting sustainable practices, highlighted by contributions from **BNP Paribas** and the **Dutch Pension Fund**. The involvement of **civil society, observers, and solution providers** is crucial for monitoring, advocacy, and supporting CSR initiatives, thereby enhancing transparency and accountability in supply chains under the EUDR.

[Download full report at emma4eu.eu](https://emma4eu.eu).