Prepared by DigitalTrade4.EU

Aligning the EU Regulation on Pesticide Residues with the Digital Product Passport (DPP) and ESG Objectives

Feedback to the EU Commission

July 2025

About Us

The **DigitalTrade4.EU consortium** envisions a **seamlessly interconnected Europe** and **neighbouring regions** powered by harmonized standards for the digitalisation of trade documents and processes. By fostering the digital transformation of trade, we aim to promote economic integration, enhance cooperation, and ensure long-term trade facilitation across borders.

Our consortium is made up of **experts in their field**, including **107 full partners**—trade associations, logistics providers, shipping lines, banks and insurances, technology innovators, etc.—**from 17 European Union countries** (*France, Belgium, Netherlands, Austria, Estonia, Finland, Italy, Latvia, Spain, Germany, Sweden, Poland, Luxembourg, Lithuania, Slovenia, Denmark, Bulgaria*) and **22 non-EU countries** (*United Kingdom, Switzerland, Montenegro, Japan, Singapore, Hong Kong, Australia, New Zealand, India, Nepal, Canada, United States of America, Cameroon, Morocco, Egypt, Kenya, Pakistan, Nigeria, Brazil, Uzbekistan, Turkey, Ukraine*).

Our consortium is already **aligned with the fundamentals** of the **EU Competitiveness Compass**. Learn more:

- How DigitalTrade4.EU Can Help Achieve the Objectives of the EU Competitiveness Compass (February 2025) https://www.digitaltrade4.eu/how-digitaltrade4-eu-can-help-achieve-the-objectives-of-the-eu-competitiveness-compass/

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Executive Summary

DigitalTrade4.EU **proposes a critical alignment** of the **EU Regulation on Pesticide Residues** with the **Digital Product Passport (DPP)**[1] and broader **Environmental, Social, and Governance (ESG) Objectives**. This strategic integration is designed to **significantly enhance food system transparency**, **streamline and facilitate cross-border trade**, and **robustly support the EU's ambitious ESG goals**. Our comprehensive feedback, submitted in July 2025, stems from the collective expertise of the DigitalTrade4.EU consortium, which proudly comprises **107 full partners from 17 European Union countries and 22 non-EU countries**. This diverse and extensive network ensures that our recommendations are grounded in practical experience and broad industry insight, reflecting a **holistic understanding of the agri-food sector's digital and sustainability needs**.

We are firmly **aligned with the foundational principles and strategic direction outlined in the EU Competitiveness Compass**, believing that the proposed digital and sustainable trade enhancements are **essential for fostering economic growth, strengthening cooperation, and ensuring long-term trade facilitation** across European and global borders.

This initiative will not only bolster food safety but also **reinforce the EU's leadership in digital and sustainable trade practices** on the international stage, setting a precedent for **responsible and efficient global supply chains**.

Note: *In this document, the terms* ***Small and Medium-sized Enterprises (SMEs)*** *and* ***Micro, Small and Medium-sized Enterprises (MSMEs)*** *are used interchangeably and carry the same meaning and weight. This clarification is important because different sources and contexts may refer to these groups using either acronym, but both encompass the full range of smaller business categories critical for economic development.*

[1] European Union. EU's Digital Product Passport: Advancing transparency and sustainability (September 2024) https://data.europa.eu/en/news-events/news/eus-digital-product-passport-advancing-transparency-and-sustainability

Introduction

The European Commission's **draft Implementing Draft implementing regulation - Ares(2025)5303230[2] updates and modernizes methods for sampling and analysis of pesticide residues** in food and feed, **replacing Directive 2002/63/EC**. This regulation introduces harmonized sampling protocols, standardized analytical methodologies, and digital reporting requirements to ensure compliance with Maximum Residue Levels (MRLs). It aims to reduce discrepancies in enforcement across Member States while aligning with the EU's broader sustainability goals, such as the Farm to Fork Strategy[3] and the Circular Economy Action Plan[4].

This technical update is highly relevant to the **EU's broader sustainability and digitalization agenda**, serving as a crucial component in the Union's commitment to environmental protection and public health. The **Digital Product Passport (DPP)**, a **flagship initiative** under the Circular Economy Action Plan, is further reinforced by **Regulation (EU) 2024/1781, the Ecodesign for Sustainable Products Regulation (ESPR)**. While ESPR primarily sets a framework for ecodesign requirements for a wide range of physical goods (excluding food and feed directly), its **introduction of the DPP as a key traceability and information tool** is highly pertinent. The DPP aims to **embed detailed product information into digital systems** for enhanced transparency, traceability, and promotion of sustainable consumption patterns.

By integrating pesticide residue regulation with DPP requirements, and aligning with the broader vision of ESPR, the EU can **significantly improve food safety and traceability**, offering unparalleled insights into product journeys from farm to fork. The Single Market is a **powerful catalyst for growth, prosperity, and solidarity**, and its full potential must be used to **increase productivity and regain competitiveness** in an increasingly complex global landscape. Digital tools are crucial for the **effective and efficient implementation of policies**, promoting simplification, and ensuring a **level playing field for businesses** while safeguarding consumer interests.

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[2] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13764-Pesticide-residues-in-food-methods-for-sampling-and-analysis-update-_en

[3] European Commission. Food Safety. Farm to Fork strategy https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en

[4] European Commission, Environment. Circular economy action plan https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en

Expectations from the Commission's Side: The Objectives

We have thoroughly reviewed the Commission's strategic documents, including the ***Strategy for making the Single Market simple, seamless and strong (COM(2025) 500 final***[5]. In order of criticality to achieving a data-driven Single Market, the Commission's objectives are:

- **Reducing barriers** by tackling the 'Terrible Ten' most harmful Single Market barriers, which often result in high compliance costs and administrative burden.
- **Boosting European services markets** with a new, ambitious, and aligned approach, focusing on sectors with high economic added value and relevance for the twin transition.
- **Focusing on Small and Medium-sized Enterprises (SMEs)**, as they are most affected by market fragmentation and stand to gain significantly from integration. Simplification omnibus packages, including a **Digital Omnibus**, are underway to reduce burdens and streamline legislation. The **Digital Omnibus**, proposed under the **EU's Digital Decade Policy Programme**, aims to consolidate **fragmented digital regulations** into a **unified framework**. It includes measures to **digitalise administrative processes**, **harmonize e-commerce rules**, and mandate **interoperable data standards** for **cross-sectoral use**.
- **More effective digitalization**, where Member States and the EU work in sync to boost administration and speed up business processes. The **Digital Product Passport (DPP)** is envisioned as a main tool for disclosing and sharing product information across new and revised product legislation.

[5] European Commission, Internal Market, Industry, Entrepreneurship and SMEs. The Single Market: our European home market in an uncertain world (May 2025) https://single-market-economy.ec.europa.eu/publications/single-market-our-european-home-market-uncertain-world_en

- **Simplification measures** to reduce red tape, lower costs, and increase productivity, aiming for a "1 in, 27 out" guiding principle for the Single Market. This includes **digitalising declarations of conformity and instructions for use**.
- **Effective implementation and enforcement** through strong institutions, respect for the rule of law, and proactive legal action.
- **Increased political and national engagement** to prevent new barriers and address existing ones at regional and national levels.
- **More synergy in EU spending** to promote national reforms that advance Single Market policy objectives and tackle administrative obstacles.
- **Enhanced protection** against unfair trade practices, leveraging the Single Market's size and high standards to shield EU businesses and citizens.

Approach and Recommendations

DigitalTrade4.EU advocates for a **seamlessly interconnected Europe** powered by **harmonized standards for the digitalization of trade documents and processes**. Our recommendations aim to promote economic integration, enhance cooperation, and ensure long-term trade facilitation across borders.

Digital Product Passports (DPPs)

Integrating **comprehensive Environmental, Social, and Economic (ESE) data into Digital Product Passports (DPPs)**, capturing details like carbon footprint, water usage, energy consumption, and waste generation, to provide a holistic view of product sustainability and align with Carbon Border Adjustment Mechanism (CBAM)[6] and Corporate Sustainability Reporting Directive (CSRD)[7].

DPPs provide **verifiable, machine-readable data** on a product's **composition, origin, lifecycle, and environmental footprint**—critical for supporting the following initiatives (some examples):

- **Regulations (EU) 2021/2115 & 2021/2116 (Common Agricultural Policy - CAP Simplification):** DPPs support CAP objectives by providing traceable data on agricultural inputs, product origin, and sustainability practices. This enhances transparency for conditionality checks, eco-scheme verification, and market access under the simplified CAP framework.
- **Regulation (EC) No 1223/2009 (Cosmetic Products Regulation):** DPPs centralize access to safety-critical information including full ingredient disclosure (INCI names), product formulation details, manufacturing compliance records, and safety assessment reports (PIF). This enables real-time verification of regulatory requirements for banned substances, allergen labelling, and claims substantiation.

[6] European Commission, Taxation and Customs Union. Carbon Border Adjustment Mechanism https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en

[7] European Commission, Finance. Corporate sustainability reporting https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

- **AI-Driven Resilience Strategies:** DPPs serve as critical data infrastructure for AI systems predicting and mitigating catastrophic events. By providing real-time, granular supply chain visibility, DPPs enable AI models to anticipate climate-induced disruptions (e.g., floods, droughts) and prevent cascading supply chain failures through dynamic rerouting and resource allocation.

We **fully support** the EU's vision for **DPPs** as a **fundamental enabler** of **supply chain transparency** and **sustainability**, directly aligned with initiatives such as **UNECE Recommendation No. 49 ("Transparency at Scale")**[8]. UNECE Recommendation No. 49, adopted in March 2025, provides a global framework for enhancing supply chain transparency through standardized digital data sharing. It emphasizes traceability, risk mitigation, and sustainability reporting across sectors, including agriculture and food systems.

Digital Product Passports (**DPPs**) are also strongly supported by the **European Union's overarching strategy** to make the Single Market **simple, seamless, and strong**. As outlined in the **EU Strategy COM(2025) 500 final**, the primary goal of this strategy is to enhance the **competitiveness, resilience, and strategic autonomy** of the European Market by **removing barriers, simplifying rules, and accelerating digitalisation**. By leveraging **DPPs**, the EU aims to **reduce administrative burdens**, promote **sustainability through traceable product lifecycles**, and strengthen **security**—critical to the Single Market's future **prosperity and stability.**

The Need for Transparent Party Identification

DigitalTrade4.EU emphasizes the critical role of **Legal Entity Identifiers (LEIs)** and **verifiable Legal Entity Identifiers (vLEIs)** in enhancing **trust, traceability, and accountability** across the supply chain, particularly within the context of pesticide residue sampling and analysis. LEIs are 20-character alphanumeric codes that **uniquely identify legal entities** involved in financial and trade transactions. Building on this, vLEIs add **cryptographic verification**, enabling **real-time, digital trust** in the identity of organizations and their representatives.

ISO standard 17442 (**Legal Entity Identifier**) can solve the critical problem of **insufficient transparency** in **party identification** in **Digital Product Passports**. Requiring **consistent use** of a **global entity identification standard** – **ISO 17442** – enhances **trust**, **traceability**, and **accountability** across **digital ecosystems**.

[8] United Nations Economic and Social Council. Recommendation No. 49: Transparency at Scale – Fostering Sustainable Value Chains (March 2025)
https://unece.org/sites/default/files/2025-05/ECE-TRADE-C-CEFACT-2025-03E.pdf

Implementation in the Sampling and Analysis Process

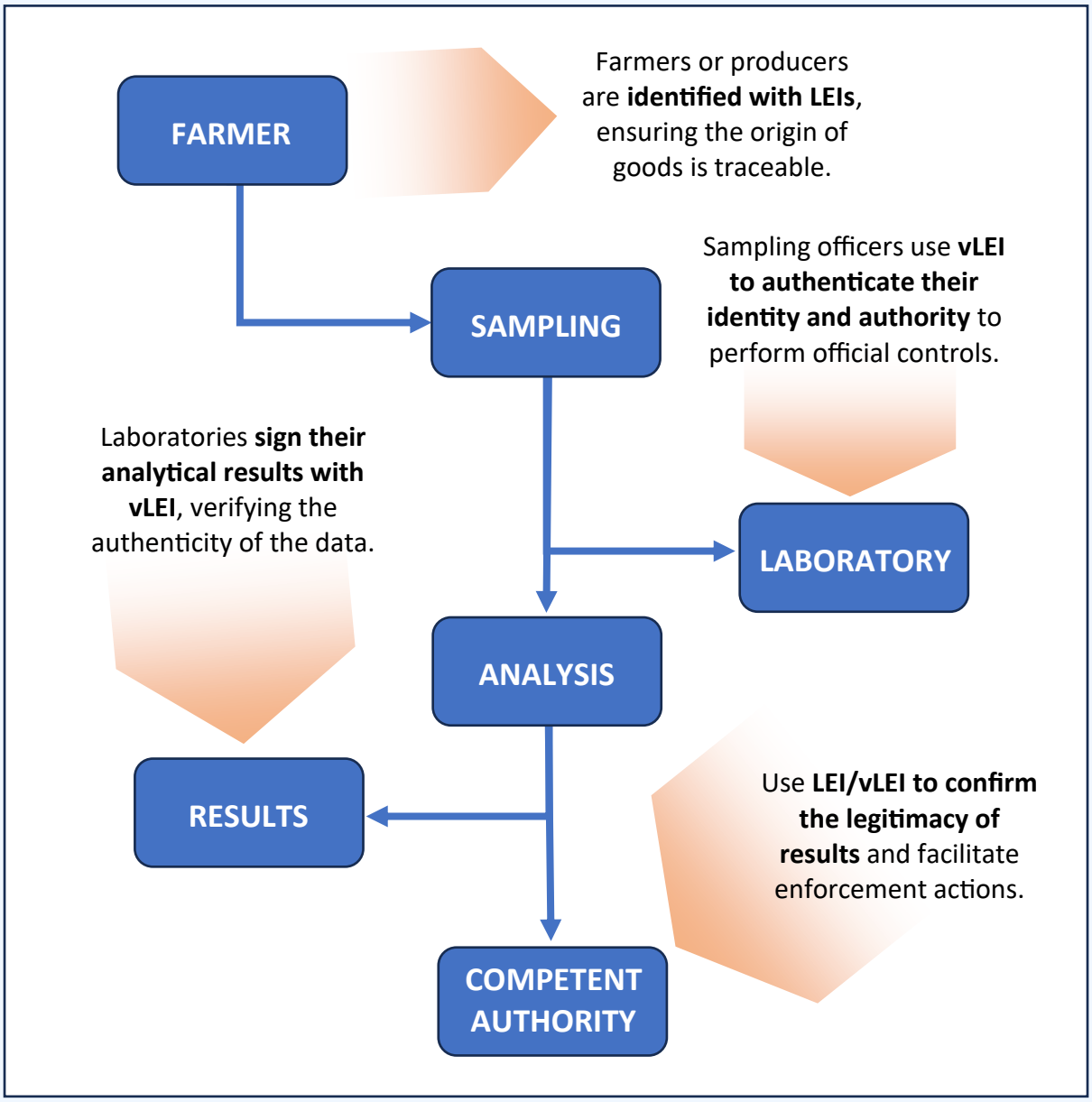

Figure 1. The integration of **LEI** and **vLEI** can be applied at several critical stages — from farmers to competent authorities — enabling **trusted identification** and **cryptographically verifiable actions**. Protocols like **KERI** and **ACDC** allow these identifiers and credentials to be **securely chained**, ensuring **traceability**, **authenticity**, and **data integrity** across the supply chain.

Relevance of LEI and vLEI in Pesticide Residue Control

- **Traceability and Accountability**: Every actor in the chain—farmers, sampling officers, laboratories, and competent authorities—can be **uniquely identified using their LEI**. vLEIs ensure that digital reports and certificates are **cryptographically verifiable**,

confirming they originate from authorized entities, thereby **reducing the risk of fraud** and ensuring only accredited laboratory results are accepted.

- **Data Integrity and Digital Verification**: Analytical results and sampling reports can be **signed using vLEI credentials**, providing tamper-evident and machine-readable verification.
- **Facilitated Cross-Border Trade**: Importers and exporters can **verify compliance documents digitally across jurisdictions**, using LEI/vLEI as a global standard recognized in the EU and beyond.

Potential Benefits for Stakeholders

- **Regulators**: **Streamlined verification and enforcement processes**.
- **Industry**: **Enhanced credibility and faster clearance of goods** in trade.
- **Consumers**: **Increased trust in food safety standards** and the integrity of the control system.

Recommendations for LEI/vLEI Integration

- Conduct a **feasibility study** on incorporating LEI/vLEI into the official controls process as described in Regulation (EU) 2017/625.
- Engage with **GLEIF (Global Legal Entity Identifier Foundation)**[9] and relevant EU bodies to explore interoperability with existing digital certification systems.
  GLEIF, a **non-profit organization** established by the **Financial Stability Board**, governs the **global LEI system** to ensure **unique identification of legal entities** in **financial transactions**. Its role extends to **verifying entity identities** and maintaining a **public database** of **LEI records**, which enhances **trust in cross-border trade** and **regulatory compliance**.
- **Pilot the use of vLEI** in selected Member States before full-scale implementation in 2027.

[9] GLEIF – Global Legal Entity Identifier Foundation
https://www.gleif.org/en

Proposed Recommendations for the Implementing Regulation on Pesticide Residues

To strengthen synergies between the pesticide residue regulation and the Digital Product Passport (DPP), DigitalTrade4.EU proposes the following amendments to the European Commission's draft Implementing Regulation:

1. **Add Definitions**

   - **Proposed text:**

     Digital Product Passport (DPP)*: means a digital record providing verifiable data on a product's composition, origin, lifecycle, and environmental footprint, as defined in (EU) Regulation 2024/1781 (Ecodesign for Sustainable Products Regulation).*

     Legal Entity Identifier (LEI)*: a globally unique, ISO 17442-compliant identifier for legal entities, governed by a global, accredited operating entity.*

     Verifiable Legal Entity Identifier (vLEI)*: ISO 17442-3, is a digitally signed credential compatible with Regulation (EU) 2024/1183 (eIDAS 2.0), enabling secure and automated entity identification and authorisation, issued by an authorized global operating entity within the LEI ecosystem.*

   - **Proposed Location in Regulation**: These definitions could be introduced as **new points within Article 2 ("Definitions")** of the Implementing Regulation, or in a **new dedicated Article 2a, titled "Digital Definitions,"** to ensure clarity and consistency with other relevant EU legislation.

   - **Justification**: Including these definitions directly within the regulation ensures **legal clarity and consistent understanding** of key digital concepts, which are fundamental to the proposed enhancements for traceability, transparency, and data integrity. This alignment with existing EU legal frameworks like ESPR and eIDAS 2.0 facilitates **seamless integration and avoids ambiguity** in implementation.

2. **Integration of Pesticide Residue Data into Digital Product Passports**

    - **Proposed Text:** *Member States shall ensure that **data generated under this Regulation, including sampling reports, laboratory analyses, and compliance decisions**, are made available in **machine-readable formats compatible with Digital Product Passport (DPP) systems**, in alignment with the principles established by **Regulation (EU) 2024/1781 (ESPR)** for product information and traceability. Food and feed business operators shall **link this information to product-level identifiers** (e.g., QR codes, barcodes) to enable traceability throughout the supply chain.*

    - **Proposed Location in Regulation**: This text could be introduced as a **new Article 4a,** following Article 4 ("Methods of analysis analytical uncertainty and interpretation of results").

    - **Justification**: This provision creates a **direct connection between official controls and the DPP**, allowing residue compliance data to flow seamlessly into product passports. It **supports supply chain transparency** and **empowers consumers and trading partners** with verified food safety information, while ensuring **consistency with broader EU digital product information frameworks** like ESPR.

3. **Standardisation of Data Exchange Protocols**

    - **Proposed Text**: *The Commission shall adopt implementing acts establishing **common data exchange standards** (e.g., XML, JSON, XBRL, or other interoperable formats) to facilitate integration of pesticide residue compliance data into Digital Product Passports and other digital traceability systems, ensuring **interoperability with the Digital Product Passport registry established under Regulation (EU) 2024/1781 (ESPR)**.*

    - **Proposed Location in Regulation**: This text could be introduced as a **new Article 4b,** following the proposed Article 4a.

    - **Justification**: **Standardised data formats**, such as **XML JSON**, **and XBRL** are essential for ensuring **seamless interoperability** between **national food safety**

databases, **EU-wide Digital Product Passport (DPP) systems**, and **international trade platforms** like the **UN/CEFACT Trade Facilitation Recommendations**. These formats must comply with **ISO/IEC 20022 standards** to guarantee **global compatibility** and **scalability**. This ensures that data can be **securely shared across Member States and with global partners**. The EU's standardisation framework needs to be future-proof, enhancing **speed, flexibility, and balanced stakeholder participation**, while improving access to standards and **leveraging existing DPP infrastructure** defined by ESPR.

4. **Consumer Information and Transparency**

   - **Proposed Text**: *Pesticide residue compliance information for food and feed of plant and animal origin shall be **easily accessible to consumers and businesses through the Digital Product Passport**, respecting data privacy and commercial confidentiality. This information should be presented in a **clear, concise, and multilingual format**, consistent with the consumer information objectives of **Regulation (EU) 2024/1781 (ESPR)**.*

   - **Proposed Location in Regulation**: This text could be introduced as a **new Article 4c,** following the proposed Article 4b.

   - **Justification**: This proposal enhances **consumer trust and market transparency**, allowing consumers to make **informed purchasing decisions** based on verified product information. It also aligns with the Commission's goal of ensuring a **high level of consumer protection** and a **harmonized approach to digital consumer information** across product categories.

5. **Incentivising Digital Adoption and Compliance**

   - **Proposed Text:** *Member States and the Commission shall consider **incentive mechanisms** for food and feed business operators who proactively adopt **Digital Product Passport systems for pesticide residue data management** and demonstrate exemplary compliance with this Regulation. Such mechanisms may include **streamlined administrative procedures or preferential access to***

***relevant EU support programmes**, drawing inspiration from approaches to digital adoption under **Regulation (EU) 2024/1781 (ESPR)**.*

- **Proposed Location in Regulation**: This text could be introduced as a **new Article 4d,** following the proposed Article 4c.
- **Justification**: Incentives can **accelerate the adoption of digital solutions** and promote a **culture of compliance and transparency** within the food and feed industry. This aligns with the strategic goal of **strengthening European value chains and business cases for investment** by promoting a consistent framework for digital transformation.

6. **Alignment with ESG Reporting Frameworks**
   - **Proposed Text:** *The Commission shall provide guidance on how **pesticide residue data integrated into Digital Product Passports can contribute to broader Environmental, Social, and Governance (ESG) reporting requirements** for food and feed businesses, particularly regarding **environmental impact and supply chain due diligence**, and how this aligns with the sustainability information objectives of **Regulation (EU) 2024/1781 (ESPR)**.*
   - **Proposed Location in Regulation**: This text could be introduced as a **new Article 4e,** following the proposed Article 4d.
   - **Justification**: This ensures that data collected for pesticide residue compliance can **serve multiple regulatory and market needs**, reducing reporting burdens and **promoting integrated sustainability reporting**. This directly supports the EU's commitment to high social and environmental standards and **harmonizes sustainability data flows** across various product regulations.

7. **Integration of Legal Entity Identifiers (LEI) and Verifiable LEIs (vLEI)**
   - **Proposed Text:**. *Member States shall ensure that **Legal Entity Identifiers (LEIs)** are utilized to **uniquely identify all legal entities involved** in the pesticide residue control process, including farmers, producers, sampling officers, laboratories, and competent authorities. Furthermore, **verifiable Legal Entity***

Identifiers (vLEIs) *shall be used to* ***cryptographically authenticate the identity and authority*** *of individuals and organizations when generating or verifying official documents and data related to pesticide residue sampling, analysis, and compliance decisions. The Commission shall, where appropriate, adopt implementing acts to facilitate the* ***technical integration and interoperability of LEI/vLEI systems*** *within the framework of this Regulation.*

- **Proposed Location in Regulation**: This text could be introduced as a **new Article 4f, titled "Integration of Legal Entity Identifiers,"** following the proposed Article 4e in the main body of the Implementing Regulation.
- **Justification**: Integrating **LEI** and **vLEI** directly into the regulation will significantly enhance **traceability**, **accountability**, and **data integrity** throughout the entire **pesticide residue control process**. It provides a **globally recognized** and **cryptographically verifiable digital identity** for all actors, reducing **fraud**, streamlining **verification**, and fostering greater **trust** among stakeholders, ultimately contributing to a more **robust** and **efficient food safety system**. This also ensures **consistency** with other **EU digital compliance frameworks**, including the **Digital Operational Resilience Act (DORA)** and the **EU Anti-Money Laundering (AML) Regulation**, both of which **mandate** or **support** the use of the LEI to enhance **transparency**, **risk management**, and **trust** across **cross-border operations**. Adopting the LEI and vLEI aligns with broader EU efforts to build a **secure** and **trustworthy digital infrastructure**, as seen in legislation like **DORA** and the **AML Regulation**, which rely on **verifiable entity identification** to prevent **fraud**, enhance **resilience**, and support **regulatory cooperation**.

Broader Recommendations

Beyond the specific amendments to the pesticide regulation, DigitalTrade4.EU's broader recommendations for the EU Commission include:

- **Prioritizing investments in digital infrastructure** to support seamless cross-border trade, further developing tools like the **Single Digital Gateway (SDG)** and the **Once-**

Only Technical System (OOTS). The **Once-Only Technical System (OOTS)**, established under the **EU's Interoperability Solutions for European Public Administrations (ISA²) programme**, enables **public administrations** to **reuse data** already provided by **citizens and businesses**. This eliminates **redundant data submissions**, reducing **administrative burdens** for **SMEs** engaged in **cross-border trade**.

- **Supporting Small and Medium-sized Enterprises (SMEs)** in their digital transition through robust training, advisory services, and digital capacity building, including initiatives like the proposed "Green-Digital Trade Academy" under Erasmus+. The **Green-Digital Trade Academy**, a proposed **Erasmus+ initiative**, will offer **targeted training programs** on **sustainable supply chain management**, **digital documentation** (e.g., **DPPs**), and **carbon footprint reporting**. It will collaborate with **industry experts** and **academic institutions** to deliver **modular courses** tailored to **SMEs** in **agriculture**, **logistics**, and **food processing**.

- Ensuring **policy coherence** between Common Agricultural Policy (CAP) reforms and EU digital trade policy by harmonizing standards for the digitalization of trade documents and processes, **drawing lessons from the framework established by ESPR**.

- Advocating for **intensified international coordination** and **deepening digital trade partnerships**, championing **global interoperability of laws and standards** such as the UNCITRAL Model Law on Electronic Transferable Records (MLETR) [10] and EU eIDAS 2.0 regulation. This will prevent vendor lock-in and empower SMEs.

- Linking **trade finance to sustainability metrics** for cheaper capital access, potentially unlocking €10 billion per year for green trade finance and reducing Scope 3 emissions by 30% by 2030.

- Advancing **UNECE Transparency Protocols** to globalize EU sustainability standards for supply chains, aiming for 100% alignment with UNECE Rec. 49 by 2028 and a 30% reduction in greenwashing claims.

[10] UNCITRAL. Model Law on Electronic Transferable Records
https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records

Conclusion and Next Steps

By incorporating these recommendations, the EU can ensure that its regulation on pesticide residues is not only **scientifically robust but also future-proof and digitally integrated**, in harmony with overarching frameworks like **Regulation (EU) 2024/1781 (ESPR)**. This modernization will yield **significant benefits for public health, environmental protection, and the competitiveness of the European agri-food sector**. The enhanced transparency and traceability offered by the Digital Product Passport, coupled with the integration of ESG objectives, will empower consumers, facilitate efficient market surveillance, and strengthen the EU's position as a global leader in sustainable food systems. DigitalTrade4.EU is **deeply committed to fostering the digital transformation of trade** and is eager to collaborate further with the European Commission and Member States to implement these forward-looking proposals effectively. We firmly believe these steps will contribute significantly to a **more transparent, sustainable, and competitive European food system**, reinforcing the **EU's pivotal role in shaping global digital trade diplomacy** and setting new benchmarks for responsible production and consumption.

Next Steps:

- **Expedited Policy Alignment**: We urge the Commission to **prioritize inter-service consultations** to swiftly incorporate these DPP-related provisions into the final draft of the Implementing Regulation, ensuring **synergy with the implementation of ESPR**. Timely integration is crucial to maximize the impact of this legislative update.
- **Collaborative Technical Standards Development**: DigitalTrade4.EU is ready to engage actively with **EU Reference Laboratories, food industry stakeholders, and DPP developers** to co-create robust and interoperable data exchange standards, **building upon the technical specifications emerging from ESPR implementation**. This collaborative approach will ensure practical applicability and broad adoption.
- **Targeted Pilot Initiatives**: We recommend launching **pilot projects** to test the seamless integration of pesticide residue data into DPPs within selected high-value or high-risk food categories (e.g., organic produce, specialty crops, or processed foods

with complex supply chains). This will provide valuable real-world insights and refine implementation strategies.

- **International Cooperation and Mutual Recognition**: The EU should leverage existing and future digital trade agreements, such as **DEPA (Digital Economy Partnership Agreement)**, and other platforms to promote the mutual recognition of digitally verifiable pesticide residue compliance data with third countries. This will facilitate smoother global trade and reinforce EU standards internationally.
- **User-Friendly Interface Development**: To ensure broad accessibility and impact, we suggest developing **intuitive and user-friendly interfaces** that allow consumers and businesses to easily access pesticide residue information via DPP-linked applications or web portals. This will enhance trust and informed decision-making.
- **Capacity Building and Awareness**: Develop and implement **training programs and awareness campaigns** for national competent authorities, food business operators (especially SMEs), and consumers on the new digital requirements and the benefits of DPP integration, **including the broader context of ESPR**.
- **Regular Impact Assessment and Review**: Establish a framework for **regularly assessing the impact** of these digital integration measures on administrative burden, trade flows, and environmental/public health outcomes, allowing for continuous improvement and adaptation.

We look forward to continued dialogue and engagement on this critical matter.

Appendix 1. EU Green-Digital Trade Leadership Roadmap (DigitalTrade4.EU, 2025)

activity	objective	indicative metrics	tools/enablers
1. EU-Singapore DTA & Expand DEPA Partnerships	Strengthen digital trade diplomacy in Asia through high-standard agreements.	- 5+ new digital trade agreements with key Asian partners (e.g., Japan, India, ASEAN) by 2030 - 15% increase in EU-Asia digital services trade by 2028	DEPA framework, EU-Singapore DTA, Global Gateway Initiative, eIDAS 2.0
2. Implement Digital Product Passports (DPPs)	Ensure traceable, sustainable supply chains aligned with EU Green Deal.	- 50% adoption of DPPs by 2030 - 20% reduction in supply-chain carbon intensity by 2030	EU Sustainable Products Initiative, CBAM incentives, UNECE Recommendation 49
3. Fund Secure Digital Corridors in Asia	Build interoperable digital infrastructure for EU-Asia trade, prioritizing cybersecurity resilience	- ~€2B allocated via NDICI-Global Europe - 10+ blockchain-based traceability pilots by 2027	NDICI-Global Europe, ASEAN digital customs systems, EU Customs Data Hub, ENISA threat intelligence platforms
4. Harmonize Digital Standards (MLETR/eIDAS 2.0)	Enable cross-border recognition of e-documents and digital identities.	- 90% mutual recognition of e-signatures by 2028 - 70% SME adoption of eIDAS wallets	MLETR framework, eIDAS 2.0, EU Transport Law updates, UN/UNECE protocols
5. Implement LEI and vLEI for Supply Chain Trust	Harmonise and simplify legal entity identification across borders	- 90% entity coverage with LEI by 2030; 50% vLEI use in customs and eFTI transactions	ISO 17442, vLEI, eIDAS 2.0, UNECE UID
6. Launch Green-Digital Trade Academy	Upskill SMEs and officials on DPPs and carbon accounting.	- 40% increase in SME participation by 2027 - 60% cost savings for SMEs	Erasmus+ grants, COSME programme, tiered compliance thresholds
7. Integrate ESG into Trade Finance	Link trade finance to sustainability metrics for cheaper capital access.	- €10B/year unlocked for green trade finance - 30% lower Scope 3 emissions by 2030	InvestEU guarantees, CSRD-aligned reporting, FinTech platforms
8. Enforce Platform Interoperability	Prevent vendor lock-in and empower SMEs.	- 100% compliance with CJEU rulings by 2026 - 50% reduction in platform dominance	Court of Justice of the European Union (CJEU) Case C-233/23, DEPA, eIDAS 2.0, Digital Markets Act (DMA)
9. Global Digitalisation Projects with EU Standards	Extend EU digital infrastructure and norms globally.	- 20+ co-funded projects by 2030 - 80% interoperability with EU systems	Digital Europe Programme, CEF funding, EU-Asia Digital Standards Taskforce
10. Advance UNECE Transparency Protocols	Globalize EU sustainability standards for supply chains.	- 100% alignment with UNECE Rec. 49 by 2028 - 30% reduction in greenwashing claims	UNECE CEFACT, W3C Verifiable Credentials, EU CBAM registry
11. Pilot CBAM-DPP Corridors	Link trade finance to verifiable ESG metrics for tariff incentives.	- 20% CBAM compliance cost reduction - 50% DPP adoption by 2030	IoT carbon trackers, CBAM rebate schemes, EU Customs Single Window

Table 1. The roadmap above, DigitalTrade4.EU's input to the European Commission's "International Digital Strategy" operationalises the recommendations outlined in this document. For instance, Activity 1 (EU-Singapore DTA & Expand DEPA Partnerships) directly supports the harmonisation of international digital standards, while Activity 8 (Global Digitalisation Projects with EU Standards) aligns with efforts to promote dual-use infrastructure globally. These activities collectively reinforce the EU's ability to leverage digital trade diplomacy as a tool for both economic growth and strategic security.