# Digital Product Passports (DPP) for Scope 3 Mastery

LOGISTICS & SUPPLY CHAIN | CARBON INTELLIGENCE | ESG TRANSFORMATION

Global supply chains are entering a new era of environmental accountability. For decades, organizations measured logistics performance through cost, speed, and service metrics — sustainability reporting relied on estimates, annual averages, and fragmented supplier disclosures that lacked operational precision. That era is ending.

Regulatory frameworks such as the EU's Corporate Sustainability Reporting Directive (CSRD) and expanding ESG disclosure requirements are fundamentally changing how organizations manage and report supply chain emissions. By 2026, companies are increasingly required to provide shipment-level carbon visibility, auditable emissions data, product lifecycle transparency, supplier-origin verification, and full Scope 3 environmental accountability.

At the center of this transformation is the **Digital Product Passport (DPP)** — a persistent digital identity that tracks the lifecycle, movement, origin, and environmental impact of products and freight assets across the supply chain. In logistics operations, DPPs are evolving into the legal identity of freight, the environmental traceability layer of supply chains, and the foundation for auditable carbon intelligence. Freight and product movements are no longer isolated operational transactions — they are continuously monitored digital assets carrying environmental, operational, and compliance intelligence.

> Can you provide a verifiable "Carbon Receipt" for every pallet, shipment, and product moved through your network?

**2026**

**Compliance Deadline**

Year by which shipment-level carbon visibility becomes a regulatory expectation for major enterprises

**3**

**Scope 3 Focus**

Emissions category covering transportation, supplier, and logistics network impact — the hardest to measure

**5**

**Core Requirements**

Shipment visibility, auditable data, lifecycle transparency, supplier verification, and Scope 3 accountability

Fortis & Peak
Shaping What's Next

# The Strategic Challenge & Transformation Opportunity

### The Visibility Gap

Organizations could track shipments operationally — but lacked the intelligence infrastructure to track, verify, and optimize environmental impact continuously. Key challenges included:

- Limited visibility into Scope 3 transportation and supplier emissions
- Fragmented sustainability and logistics data across supply chain ecosystems
- Inability to verify shipment-level carbon impact accurately
- Increasing regulatory pressure for auditable environmental reporting
- Lack of integrated digital identities for freight and product movement

### The Larger Opportunity

A global logistics enterprise recognized that the opportunity extended far beyond compliance reporting. The strategic imperative was transforming environmental transparency into a capability that improves resilience, trust, operational optimization, and competitive differentiation.

To meet these expectations, enterprises are integrating real-time emissions tracking, IoT-enabled logistics monitoring, AI-driven carbon analytics, blockchain and digital traceability frameworks, and lifecycle intelligence systems — converging into what Fortis & Peak calls an **Intelligent Carbon Transparency Ecosystem**.

> The supply chains of the future will compete on the quality, transparency, and intelligence of the environmental data attached to every movement they make.

**Traditional Model**

Shipment movement → estimated emissions → periodic ESG reporting


**DPP-Enabled Model**

Digital freight identity → real-time tracking → auditable ESG reporting

This architectural shift — from periodic, estimate-based reporting to continuous, shipment-level carbon intelligence — represents the defining transformation challenge for logistics enterprises navigating the new regulatory landscape.

# Transformation Powered by 3D&S + TECHNEXIS™ + FortisIntel

Fortis & Peak deployed its proprietary 3D&S execution framework — Define, Design, Deliver, Sustain — as the structured methodology for building a scalable DPP and Scope 3 carbon intelligence architecture from the ground up.

1

**DEFINE — Mapping Carbon Visibility Gaps**

Using FortisIntel, Fortis & Peak assessed shipment visibility and emissions reporting capabilities, identified gaps in supplier and lifecycle data integration, evaluated freight movement transparency across multimodal networks, and assessed Scope 3 reporting exposure and CSRD compliance risks. Outcome: clear visibility into where DPPs and carbon intelligence systems could improve compliance and operational performance.

2

**DESIGN — Architecting the Freight DPP Ecosystem**

Through TECHNEXIS™ engineering methodologies, the team engineered persistent Digital Product Passports for freight units and pallets, integrated shipment-level emissions and carbon accounting systems, deployed IoT-enabled tracking infrastructure, and developed AI-driven lifecycle and carbon optimization analytics. Outcome: transition from fragmented emissions reporting to an intelligent carbon transparency ecosystem.

3

**DELIVER — Operationalizing Carbon Intelligence at Scale**

Leveraging TECHNEXIS™ as the orchestration layer and FortisIntel as the intelligence engine, the team deployed DPP-enabled freight tracking, activated real-time monitoring of shipment emissions, automated generation of auditable "Carbon Receipts," and synchronized sustainability intelligence with operational logistics systems. Outcome: intelligent logistics operations continuously monitoring and optimizing environmental impact.

4

**SUSTAIN — Embedding Carbon Transparency Continuously**

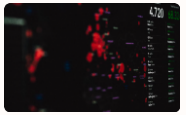
Through the SUSTAIN phase, the organization evolved into a continuously adaptive carbon intelligence ecosystem — refining emissions tracking models, expanding DPP frameworks across global networks, integrating predictive sustainability strategies, building carbon-aware logistics capabilities, and maintaining continuous governance and regulatory compliance oversight. Outcome: a scalable, resilient Scope 3 intelligence ecosystem supporting sustainability leadership.

# Core Platforms in Action

Three proprietary platforms form the integrated technology backbone of the DPP and Scope 3 intelligence transformation, each serving a distinct and complementary role across the carbon transparency ecosystem.

**TECHNEXIS™ — Carbon & Traceability Orchestration**

Designs intelligent logistics transparency and sustainability ecosystems. Integrates IoT tracking, DPP frameworks, and operational systems. Enables real-time shipment-level carbon intelligence and creates scalable, auditable environmental reporting architectures across the full supply chain network.

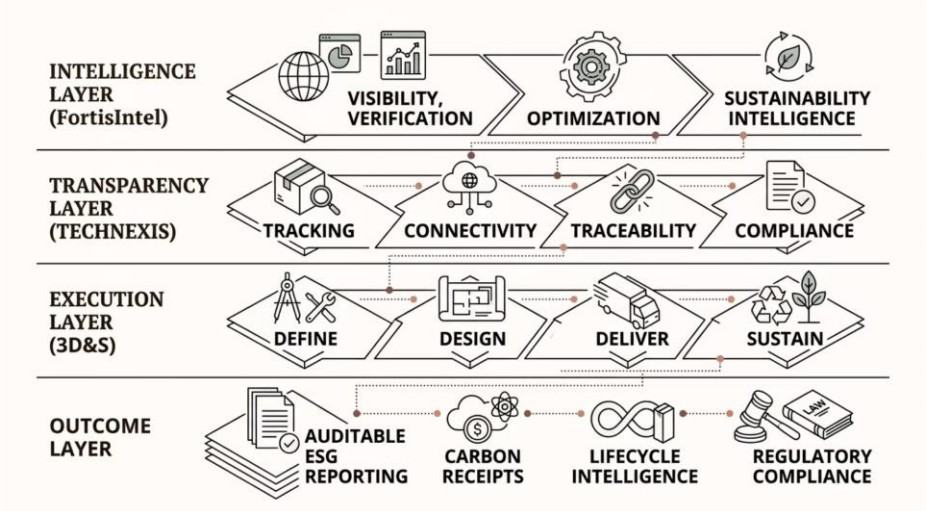


**FortisIntel — Freight & Carbon Intelligence Engine**

Monitors freight movement, emissions, and environmental conditions in real time. Proactively detects inefficiencies, compliance risks, and carbon hotspots. Enables predictive sustainability optimization, lifecycle intelligence, and provides continuous operational, environmental, and ESG analytics.

**3D&S — Transformation Execution Framework**

The structured four-phase methodology — Define, Design, Deliver, Sustain — that drives the end-to-end transformation. Identifies emissions visibility gaps, architects DPP and Scope 3 ecosystems, deploys shipment-level transparency systems, and continuously optimizes carbon performance, compliance, and operational resilience.



# Measurable Impact & Strategic Positioning

TRANSFORMATION OUTCOMES

The deployment of Digital Product Passports and the Scope 3 carbon intelligence ecosystem delivered measurable, enterprise-wide impact — transforming logistics operations from a compliance burden into a strategic sustainability capability and competitive differentiator.

### Scope 3 Transparency

Improved emissions visibility and reporting accuracy across the full supply chain, replacing estimates with verified, shipment-level data

### ESG Compliance Speed

Faster and more reliable ESG compliance capabilities, with automated generation of auditable Carbon Receipts for every shipment

### Freight Traceability

Enhanced freight traceability and supplier accountability through persistent Digital Product Passports across multimodal networks

### Environmental Optimization

Reduced environmental impact through AI-driven routing, carrier selection, and continuous carbon reduction strategy optimization

> The supply chains of the future will not compete solely on speed or cost — they will compete on the quality, transparency, and intelligence of the environmental data attached to every movement they make.

### Fortis & Peak — Strategic Positioning

This transformation positions Fortis & Peak as the creator of TECHNEXIS™ (intelligent carbon transparency ecosystems), creator of FortisIntel (freight intelligence and lifecycle analytics), and owner of 3D&S (execution-driven transformation methodology) — a firm that transforms logistics into intelligent, auditable sustainability ecosystems and a recognized leader in Digital Product Passports, Scope 3 intelligence, and ESG-driven supply chain transformation.

### Fortis & Peak Consulting & Investment

*Transforming freight and supply chains into intelligent, transparent, and carbon-aware operational ecosystems.*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Fortis & Peak
Shaping What's Next

From fragmented emissions reporting to intelligent carbon transparency ecosystems — this is the Fortis & Peak difference.