

MJR Consulting

<u>Team Member Name</u>	<u>Year</u>	<u>Major(s)</u>
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Topic: Behind the Bite: Enhancing Food Supply Chain Transparency with Blockchain.

Audience: International Fresh Produce Association (IFPA)'s Board of Directors

Sustainable Development Goal

SDG #12: Responsible Consumption and Production - Ensure sustainable consumption and production patterns

SDG #17: Partnerships for the Goals - Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Executive Summary

As global food supply chains grow more complex, regulatory demands such as FSMA 204 in the United States and the EU's Digital Product Passport are redefining traceability as a business requirement rather than a competitive advantage. Fragmented documentation systems expose companies to regulatory penalties, shipment delays at ports, and slow recall responses, each carrying significant financial and reputational risk. In perishable food distribution, time is critical. Delays caused by unverifiable origin documentation can result in entire shipments being discarded. More importantly, slow or opaque recall processes can endanger consumer health. When traceability fails, the burden of risk shifts to consumers and vulnerable communities. Therefore, transparency is not only operational, it is ethical.

We recommend adopting a blockchain-based traceability system to create a secure, tamper-resistant, real-time record of key supply chain data from farm to retail. This solution enhances regulatory compliance, accelerates customs clearance, and dramatically improves recall responsiveness. Financially, the investment reduces long-term risk exposure by minimizing recall costs, lowering waste, and protecting brand equity. Also, from both ethical and strategic perspectives, this system aligns with SDG #12 (Responsible Consumption and Production) by strengthening accountability and transparency across the supply chain and protecting consumer trust. Furthermore, it is consistent with the goals of SDG #17 (Partnerships for the Goals), it promotes data sharing and collaboration among supply chain participants, thereby contributing to stronger global partnerships for sustainable development.