



Revolutionizing Supply Chains with a Standards Organizer

Driving Provenance, Auditability,
Compliance, and Economic Impact

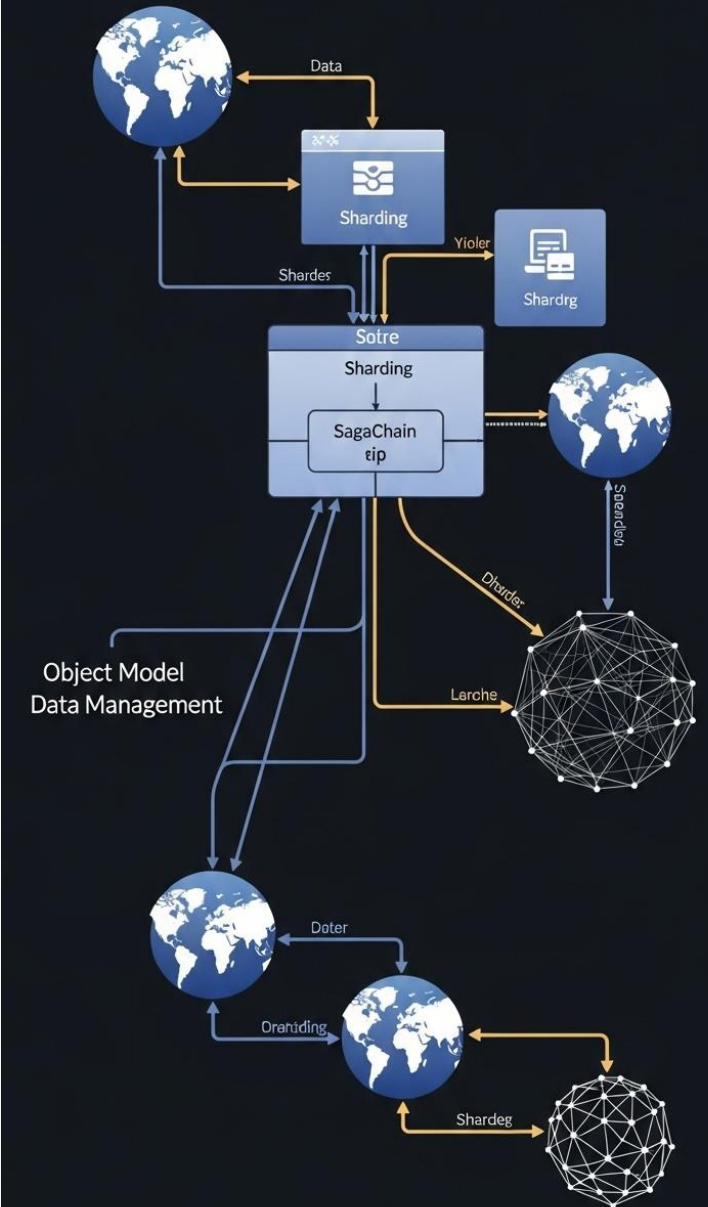




Meet SagaChain and SagaStandards

- ❖ **SagaChain:** A layer-1 blockchain with hybrid PoS/PoW consensus, designed for scalability via sharding.
- ❖ **Key Features:** Meta Class Object State Database Model, Multi-inheritable Programmable Smart Assets (SagaPSA), Persistent State Data Management.
- ❖ **SagaStandards:** A PraSaga initiative to integrate open standards (e.g., GS1, ISO, OpenSSF) for transparent, efficient supply chains.
- ❖ **Vision:** Global adoption of standardized, blockchain-enabled supply chain solutions.

SagaChain Architecture





The \$11–12 Trillion Opportunity

- ❖ **Market Size:** Global supply chain market (logistics, transportation, warehousing, freight forwarding) valued at \$11–12 trillion in 2025.
- ❖ **Sources:** Precedence Research (\$11.23T, 2025), Allied Market Research (\$10.2T, 2023, projected growth), Statista (\$9.96T, 2023).
- ❖ **Context:** Encompasses flow from manufacturing (\$44T, World Bank) to customer, with global trade at \$32T (WTO).
- ❖ **Challenges:** Fraud (\$200B in pharmaceuticals, WHO), inefficiencies (\$1.5T, WEF), disruptions (\$1.6T lost GDP, BCI).

Market Size

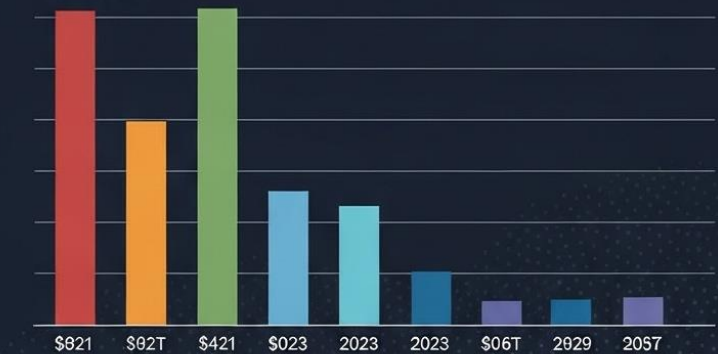


Conket Size

Global Supply Chain market (Logistics, Transportation, Warehousing, Freight Forwarding) valued at \$11–12 trillion in 2025



Precedence Research 2025
\$11.23T 2025

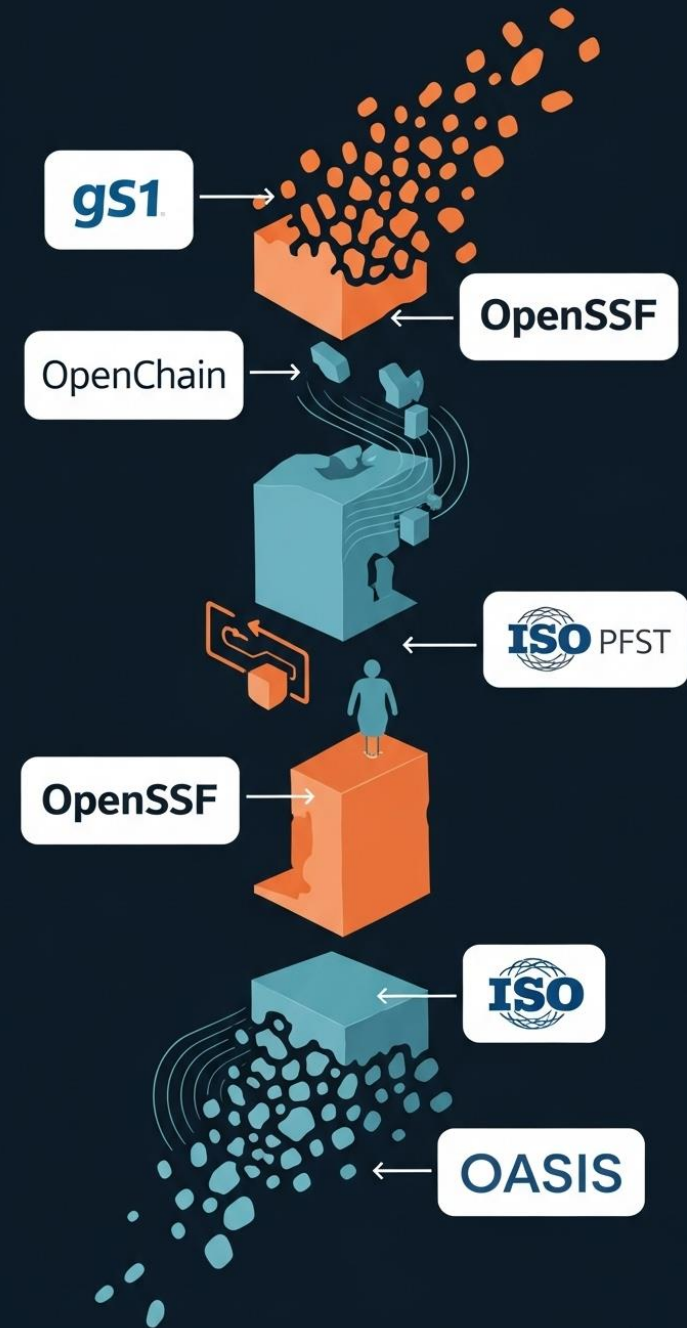


\$19.96T 2023



The Power of Open Standards

- ❖ **Purpose:** Standardize data for interoperability, transparency, and trust.
- ❖ **Key Standards:** GS1 (EPCIS, GTIN), OpenChain (SPDX), OpenSSF (SLSA), ISO (28000, 27001), OASIS (CycloneDX).
- ❖ **Benefits:** Reduce fragmentation, combat fraud, simplify compliance, enhance efficiency.
- ❖ **SagaChain Integration:** Standards as SagaPSA classes in a global Supply Chain Class Tree.





Ensuring Provenance and Trust

- ❖ **How:** SagaPSA enables end-to-end tracking of goods/software (e.g., EPCIS, SPDX, SLSA).
- ❖ **Impact:** Reduces fraud (\$200B in pharmaceuticals, WHO), builds consumer trust.
- ❖ **Example:** Walmart tracks food provenance in minutes vs. days (AIMultiple, 2025).
- ❖ **Market-Wide:** Universal adoption could save \$500B–1T annually from counterfeit losses (OECD).

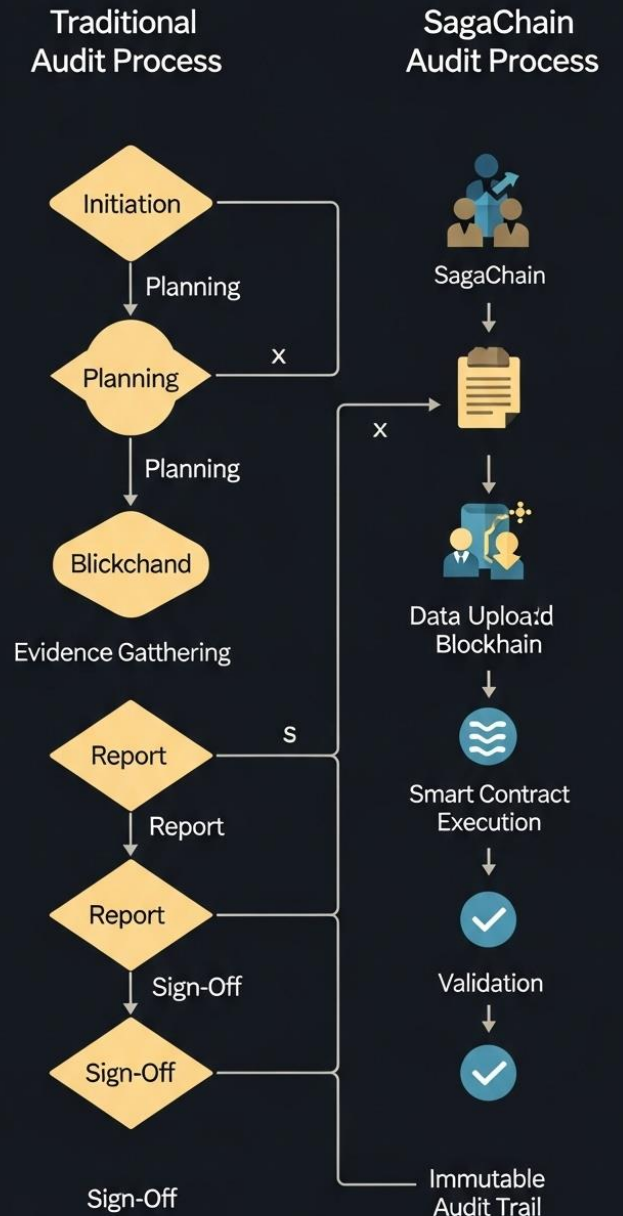
PRODUCT JOURNEY FARM TO TABLE





Streamlining Supply Chain Audits

- ❖ **How:** Immutable records via SagaChain's Persistent State Data Management.
- ❖ **Standards:** GS1 EPCIS, ISO 28000 as SagaPSA for real-time auditing.
- ❖ **Impact:** Saves 10–15% on audit costs (\$100–150B, PwC), reduces errors.
- ❖ **Example:** IBM TradeLens increased audit speed by 30–40% (IBM Case Study).





Simplifying Global Compliance

- ❖ **How:** Transparent data aligns with FDA, EU Green Deal, ESG standards via SagaPSA.
- ❖ **Standards:** ISO 27001, SLSA for compliance tracking.
- ❖ **Impact:** Saves up to 50% on compliance costs (\$300–500B, Gartner), faster reporting.
- ❖ **Market-Wide:** Reduces penalties, enhances regulatory trust.

COMPLIANCE CHECKLIST

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Unlocking \$1–2 Trillion in Value

- ❖ **Cost Savings:** 5–10% reduction in supply chain costs (\$550B–1.2T, BCG, Deloitte).
- ❖ **Fraud Reduction:** \$200B in pharmaceutical counterfeiting (WHO), \$500B–1T total (OECD).
- ❖ **Compliance Savings:** \$100–150B (PwC), up to \$300–500B (Gartner).
- ❖ **Economic Benefits:** \$1–2T total, including trade growth (\$280–560B, WTO), job creation (40M by 2030, PwC).
- ❖ **New Revenue:** Tokenized assets, premium pricing for verified products.



Cost Savings

5–10% reduction in supply chain costs
\$550B–1.2T, BCG, Deloitte



Fraud Reduction

\$200B in pharmaceutical counterfeiting (WHO)
\$50B - 1500B-1T total (OECD)

Economic Benefits

\$100–150B–500B (Gartner)



New Revenue Trade Growth
Tokenized assets, premium pricing for verified products



Why SagaChain for Global Supply Chains?

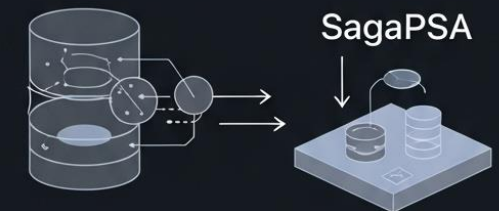
- ❖ **Meta Class Object State Database:** Flexible standard integration.
- ❖ **SagaPSA:** Multi-inheritable smart assets for dynamic relationships.
- ❖ **Persistent State Data Management:** Real-time, immutable data access.
- ❖ **Scalability:** Sharding and hybrid PoS/PoW for global transaction volumes.

SagaPSA Class Tree



Blockchain Security

Sharding





Proven Success in Supply Chain Transformation

- ❖ **TradeLens:** 40% transit time reduction, thousands saved per shipment (IBM).
- ❖ **Walmart:** Food provenance in minutes, reduced waste (AIMultiple).
- ❖ **Acropolium Client:** Significant expense reduction, 37% profit increase (Acropolium).
- ❖ **SagaChain Potential:** Scaling benefits with global standards adoption.

Before/After

Before	After
 Case Study	
	
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Call to Action – Join SagaStandards

- ❖ **Who:** Industry (retail, pharma, logistics), SDOs (GS1, ISO, OpenSSF), governments, non-profits (OpenChain, OASIS).
- ❖ **Why Join:** Shape the future, ensure standards compatibility, drive global adoption.
- ❖ **How to Engage:**
 - ❖ Join working groups to map standards to SagaChain.
 - ❖ Participate in pilots (e.g., EPCIS, SLSA integration).
 - ❖ Contribute to open-source code for broader adoption.
- ❖ **Contact:** sagastandards@prasaga.com
- ❖ SagaStandards.praasaga.com





Let's Build the Future of Supply Chains

❖ Next Steps:

- ❖ Schedule a meeting with SagaStandards sagastandards@prasaga.com.
- ❖ Join pilot programs for standards integration.
- ❖ Explore SagaChain's source at code.prasaga.com/sagachain.

❖ **Q&A:** Open for questions and discussion.





Citations

- ❖ Supply Chain Connect: Can Blockchain Reduce Supply Chain Complexity and Costs?
- ❖ Relevance: Explores blockchain's potential to simplify supply chains, reinforcing economic impact estimates.
- ❖ Website Address: <https://www.supplychainconnect.com/topics/21867375-what-procurement-needs-to-know-about-blockchain-standards>
- ❖ World Economic Forum: Building Resilience in Supply Chains
- ❖ Relevance: Estimates \$1.5 trillion in annual inefficiencies, supporting the potential for \$1–2 trillion in total economic impact.
- ❖ Website Address: <https://www.weforum.org/whitepapers/building-resilience-in-supply-chains/>
- ❖ McKinsey: Trade Finance and the Promise of Digitalization
- ❖ Relevance: Notes \$1–2 trillion in trapped liquidity, informing revenue opportunities and economic benefits.
- ❖ Website Address: <https://www.mckinsey.com/industries/financial-services/our-insights/trade-finance-and-the-promise-of-digitalization>
- ❖ IBM: TradeLens Case Study
- ❖ Relevance: Demonstrates 40% transit time reduction and 30–40% audit speed increase, supporting efficiency and auditability impacts.
- ❖ Website Address: <https://www.ibm.com/case-studies/tradelens>

