

Tongadive

Technology Simplified

Role of Digital Ledger Technology (DLT) in Next Generation Pharmaceutical Supply Chain

The Scarcity of TRUST

Never in history have we had
so many options, so little trust



Safe?



Ethically
sourced?



Sustainably
produced?



Recyclable?



Genuine?

Provenance

/'prɒv.ən.əns/

the place of origin of something

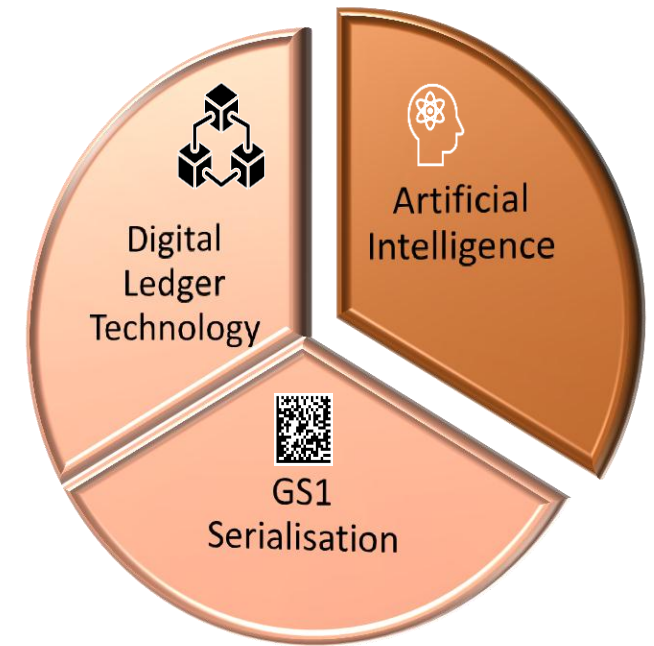
Regulatory Compliance

Some passports get an instant visa-free entry while others queue up at border controls

- ★ US FDA - More stringent requirements for track and trace of pharmaceuticals
- ★ EU General Food Law Regulation - Additional traceability requirements on Food and Feed products
- ★ UK Food Standards Agency - New provenance requirements for ingredients used in food products

Emerging trends in Pharmaceutical Supply Chain

- > Serialised Data = Mobile Data
- > Secure by Design
- > Expanding Compliance Requirements
- > New countries, new requirements



Food



Agriculture



Healthcare



Cosmetics



Jewellery

DLT and Pharma Supply Chain



Digital Ledger
Technology (DLT)

DLT is a distributed, decentralised database managed by multiple participants across multiple nodes.

Blockchain is a form
of DLT.

Permanent

Secure

Immutable

Blockchain Standard Features

Additional Pharma Requirements

Control

Scalability

Privacy

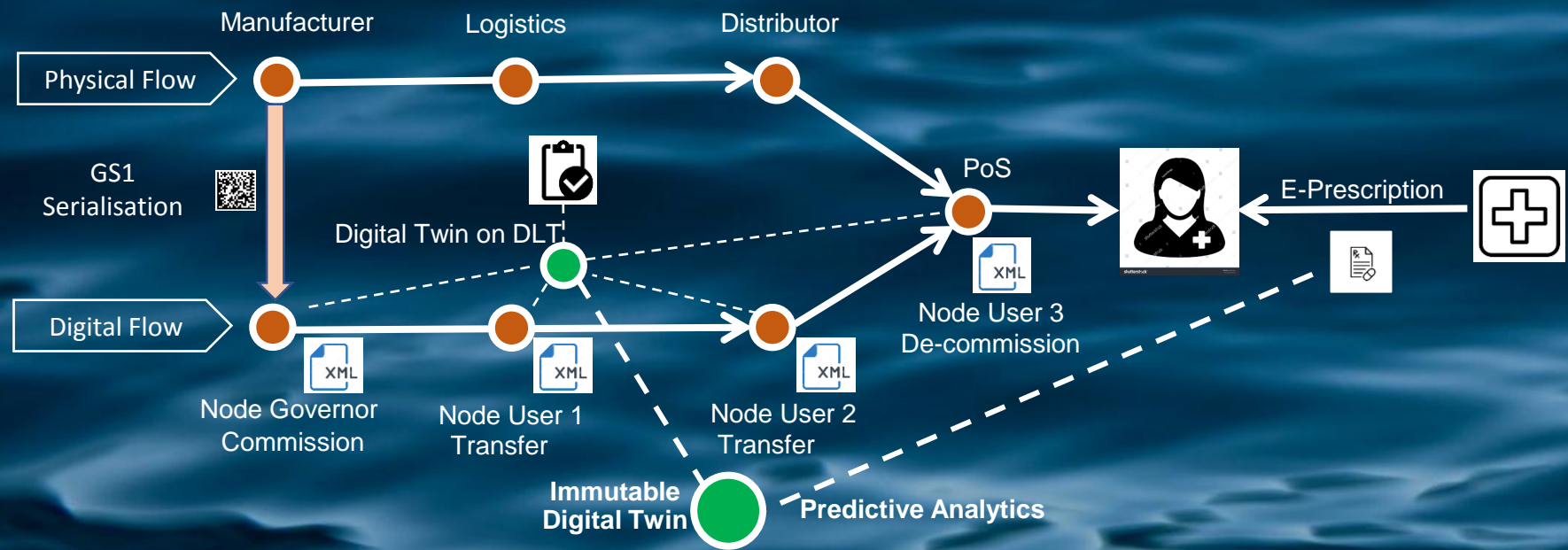


r3.corda

Azure Workbench



Next Generation Pharma



**GS1
Serialisation**

+

**Digital Ledger
Technology**

+

**Artificial
Intelligence**

Features	Requirements
Secure by Design	Immutable 'Digital Twin '
	Embedded compliance
Just in Time	Accurate demand forecast
	End to end visibility
Sustainable	Recyclable
	Reduced Wastage
	Fewer product journeys
Consumer/ Patient Focused	Trust through Provenance Tracking
	Direct to Home delivery

EVIDNT by Tongadive

A lightweight, plug-and-play solution helping supply chain stakeholders build secure, immutable, trustworthy and transparent digital footprint of product journey from source to end consumer

Next Generation Data
Matrix



Digital Ledger Technology

Machine Learning
based AI

GS1 Serialisation

Serial Number Profile Name	Serial Number Profile Type	Serial Number Length	Packaging Type
Adalimumab	Sequential Serial Numbers		GTIN-14
Amoxicillin	Random Serial Numbers	20	GTIN-14
Buprenorphine	Packager Serial Numbers		NTIN
Doxycycline	Sequential Serial Numbers		GTIN-14
Dupilumab	Sequential Serial Numbers		GS1 Company Pref
Ibuprofen	External Serial Numbers		GS1 Company Pref
Lisinopril	External Serial Numbers		GS1 Company Pref
Lorazepam	Packager Serial Numbers		GTIN-14
Melatonin	Sequential Serial Numbers		NTIN
Pantoprazole	Sequential Serial Numbers		GTIN-14

Track product's trust-based journey, conveniently and transparently!

Phase 1: DLT Blockchain enabled Compliance on Tap in Healthcare: **Releasing December 2021**

Phase 2: Smart Supply Chain with Predictive Analytics: **Successful PoC with UK Government Funding (Innovate UK)**

Distinguishing features of Evidnt

Immutability



Through Enterprise
Blockchain /DLT platform

Compliance



Through GS1 Serialisation

Agility



Through Micro-
Services Plug-Play
Architecture

Interoperability



Through Cloud Deployment

Predictability



Through AI-based Advanced
Analytics

Tongadive

Story of the Begining...