

*Welcome to the presentation to
Cyprus Blockchain Week
& Cyprus Organization for Standardization (CYS)*



Blockchain and distributed ledger technologies – Use Cases



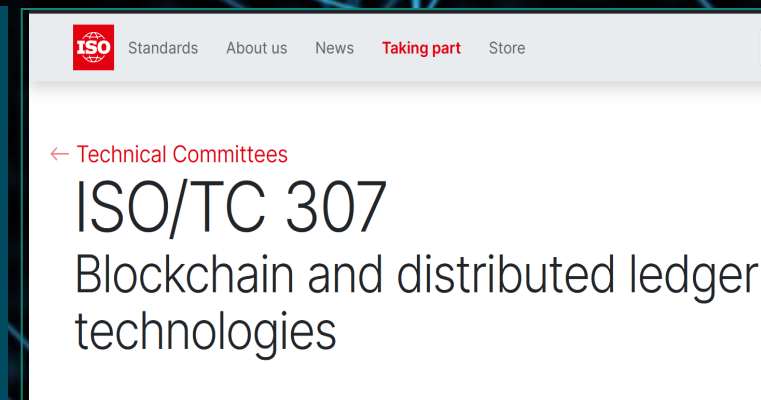
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<https://www.iso.org/committee/6266604.html>



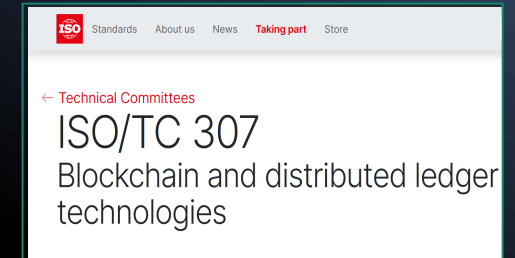
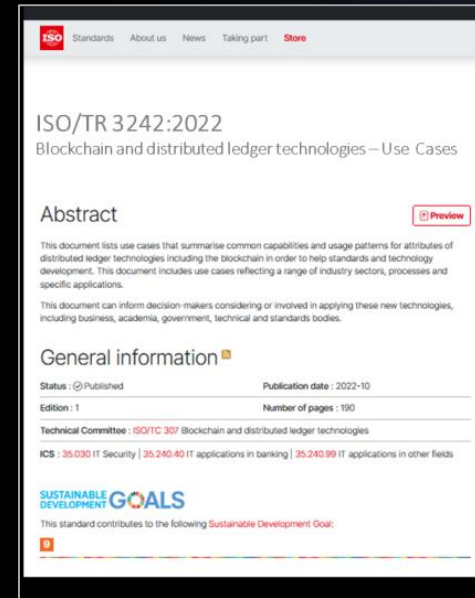
DLT/Blockchain

ISO/TC 307 Use Cases



Key themes:

1. Purpose: ISO/TC 307 use cases
2. Sectors: Examples of use cases across 4 sectors
3. Insights: Decentralized systems management
4. ISO and SDGs: Use case impacts
5. Evolution: DLT/Blockchain evolution



ISO/TR3242 Report - Blockchain and DLT Technologies – Use Cases
<https://www.iso.org/standard/79543.html>

ISO/TC307 Committee - Blockchain and DLT Technologies
<https://www.iso.org/committee/6266604.html>

Purpose: Use Cases in DLT/Blockchain



The role of Use Cases in ISO/TC 307 and the TR3242 Use Cases technical report:

Aim: to summarise common capabilities and usage patterns for attributes of DLTs including the blockchain in order to help standards and technology development

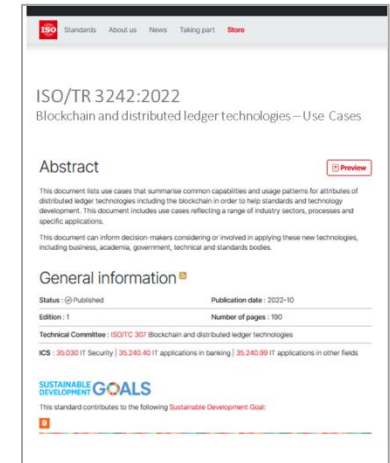
It informs decision-makers in DLT/blockchain including:

business & SMEs, academia, government, IT experts, innovators, investors, technology developers, technical and standards bodies.

It provides insights that apply to the role of DLT in:

interoperability, risk, governance, compliance, cross-border regulations, identity, security, privacy and scalability.

ISO/ TR 3242 is one of 11 published ISO reports from ISO/ TC 307



22 Use Cases

4 Sectors:

- Fintech,
- Supply Chains
- Smart Energy,
- Data Provenance



Sectors: ISO/TR 3242 DLT/Blockchain Use Cases

22 Use Cases across 4 Sectors

Data Provenance	Fintech	Supply Chains	Smart Energy
Data Accountability (EU Research)	Interbank loan reconciliation & settlement (China)	International trade transparency (Singapore)	Energy Trading with Transactive
Student Records Mgt (India)	Acc receivable financing system (China)	Maritime Bill of Lading (Israel)	Energy Grids (India)
Education certification provenance (Singapore)	Pension process optimisation (China)	Franchised drugs and pharmaceutical equipment supply-chain mgt (China)	Cooperative energy trading (Ireland)
Property Management (India)	Transparent securitisation (Italy)	Anti-counterfeit solution for pharma industry (India)	Renewable energy consumer grids (Spain)
Content timestamp verification (Neth)	Organized CHIT funds (India)	Universal Farm Compliance (Ireland)	
Self-sovereign ID (Cyprus)	Decentralised Charity Platform (Republic of Korea)	IGP provenance traceability (Italy)	
		Intl waste transportation mgt system (Neth)	

Deep dive : view of DLT/blockchain users and systems

Use Case methodology on decentralised systems management

Annex A

Use case exemplar

An example of the use case template is shown below.

Table A.1 — Use case Template

Row	Attribute	Description	Use Case Author to complete this section
1.	Use Case Control		
2.	Use Case ID	Assigned ID for inclusion in the repository	W/C6_UC001_001
3.	Date	Submission Date	Date received by reviewer
4.	Use Case author(s)	Full Name, position, nationality	
5.	Proposing Organisation (optional)	Legal name and website	
6.	Reviewer	Reviewer name (or ID) from W/C6 Use Case Lab group	
7.	Use Case Control END		
8.	Use Case Introduction and Abstract		
9.	Use Case Title		
10.	Short Description		
11.	Key words		
12.	Abstract		
13.	Use Case Categories		
14.	Use Case Type	A: Transversal	
15.		B: Horizontal	
16.		C: Vertical	
17.	UN Sustainable Development Goals		
18.	Use Case Status		
19.	Domain expert review		
20.	Use Case Summary		
21.	Long description		
22.	Business Problem or Opportunity		
23.	Scope		
24.	Objectives		
25.	Stakeholders		
26.	Predicted Outcomes		
27.	Why Distributed Ledger Technology?		
28.	Use Case Requirements		
29.	Functional Requirements		
30.	Visualisations		

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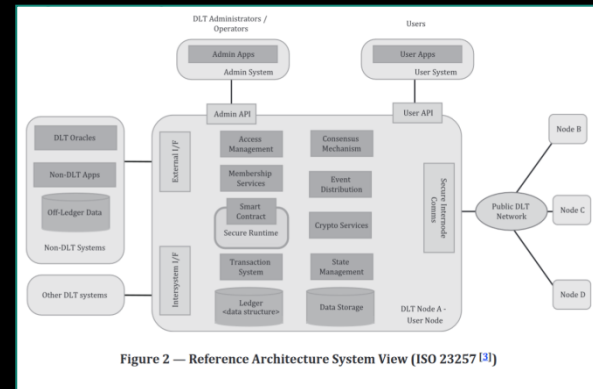


Figure 2 — Reference Architecture System View (ISO 23257 [3])

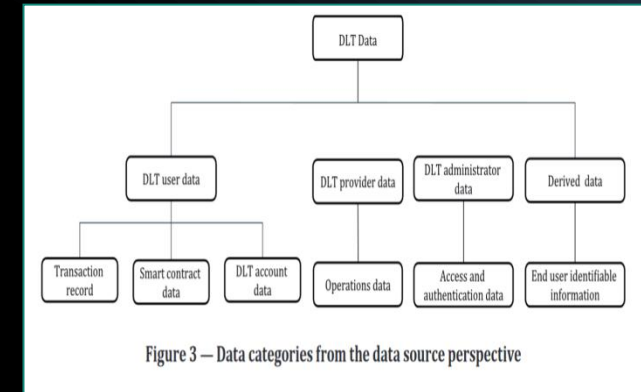


Figure 3 — Data categories from the data source perspective

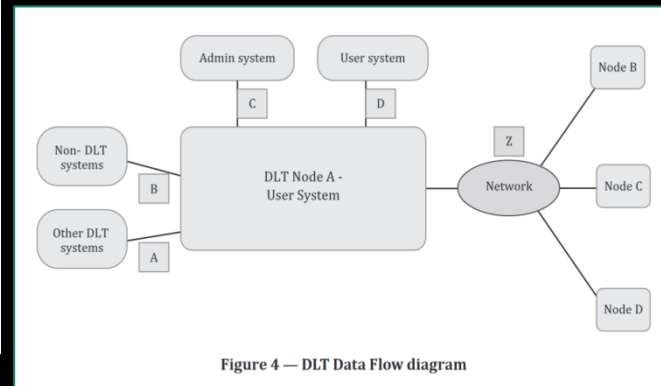


Figure 4 — DLT Data Flow diagram

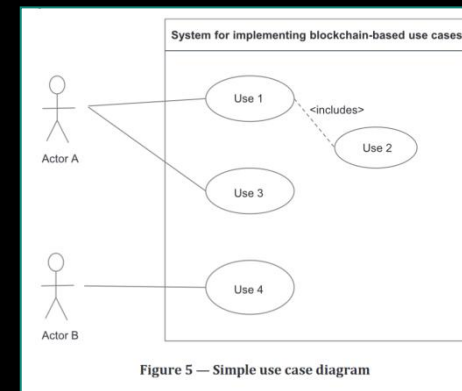


Figure 5 — Simple use case diagram

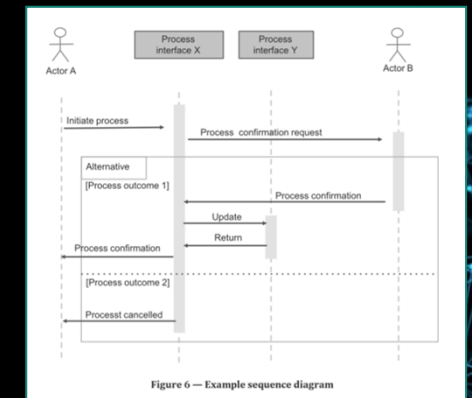


Figure 6 — Example sequence diagram

SDG impacts for applying DLT/blockchain



ISO use cases classified by SDGs

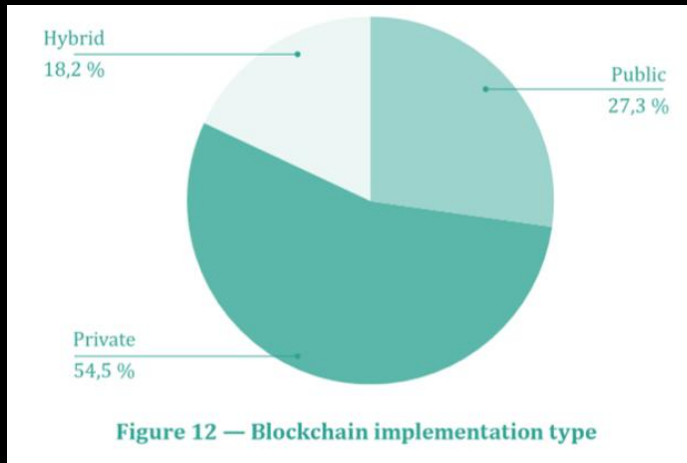
SUSTAINABILITY CITIES AFFORDABLE & CLEAN ENERGY CLIMATE ACTION	RESPONSIBLE CONSUMPTION AND PRODUCTION	QUALITY EDUCATION	REDUCE INEQUALITY
<ul style="list-style-type: none"> ○ Renewable Energy Prosumer Grids' (Spain) ○ 'Cooperative Energy Trading' (Ireland), ○ 'Energy Trading' (India) ○ 'International Waste Transportation Management System (Netherlands) 	<p>Food</p> <ul style="list-style-type: none"> ○ IGP Traceability (Italy) ○ 'Universal Farm Compliance' (Ireland) <p>Pharma</p> <ul style="list-style-type: none"> ○ 'Anti-Counterfeit Pharma' (India) ○ "Franchised Pharma Supply Management' (China) 	<ul style="list-style-type: none"> ○ Student Records Management (India) ○ Education Certificate Provenance (Spain). 	<p>Financial inclusion</p> <ul style="list-style-type: none"> ○ 'Organised Chit Funds' (India) ○ 'Transparent Securitisation' (Italy) ○ Decentralized Charity Platform (Republic of Korea)

<https://www.iso.org/sdgs.html>

Evolving use of DLT/blockchains

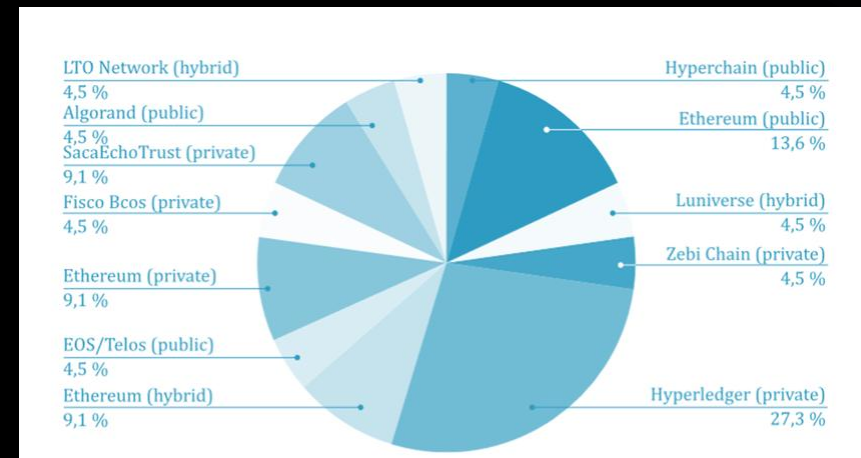
Use Cases - Blockchain Implementation Types

- 27% Public blockchains
- 50 % Private permissioned blockchains
- 18% Hybrid blockchains



Use Cases - Blockchain Platforms

- 27% Hyperledger (private),
- 13% Ethereum (public) 9% (private), 9% Hybrid
- EBSI, Algorand, Hyperchain, Saca Echo Trust, Zebi, Fisco Bicos, EOS/Telos, L'Universe, LTO Network



Thank you



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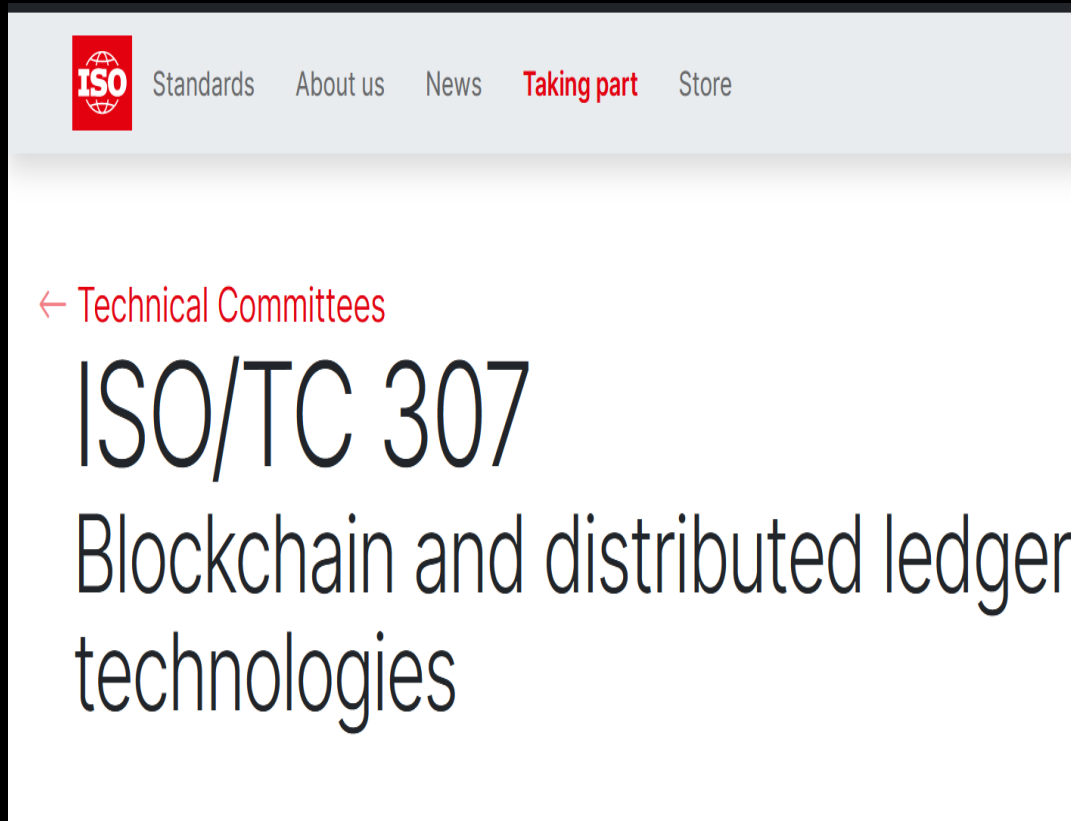
Blockchain and distributed ledger technologies

– Use Cases

Introduction to standards for Blockchain and DLT



ISO/TC 307 - ISO/TR 3242 Use Cases is the 9th published work

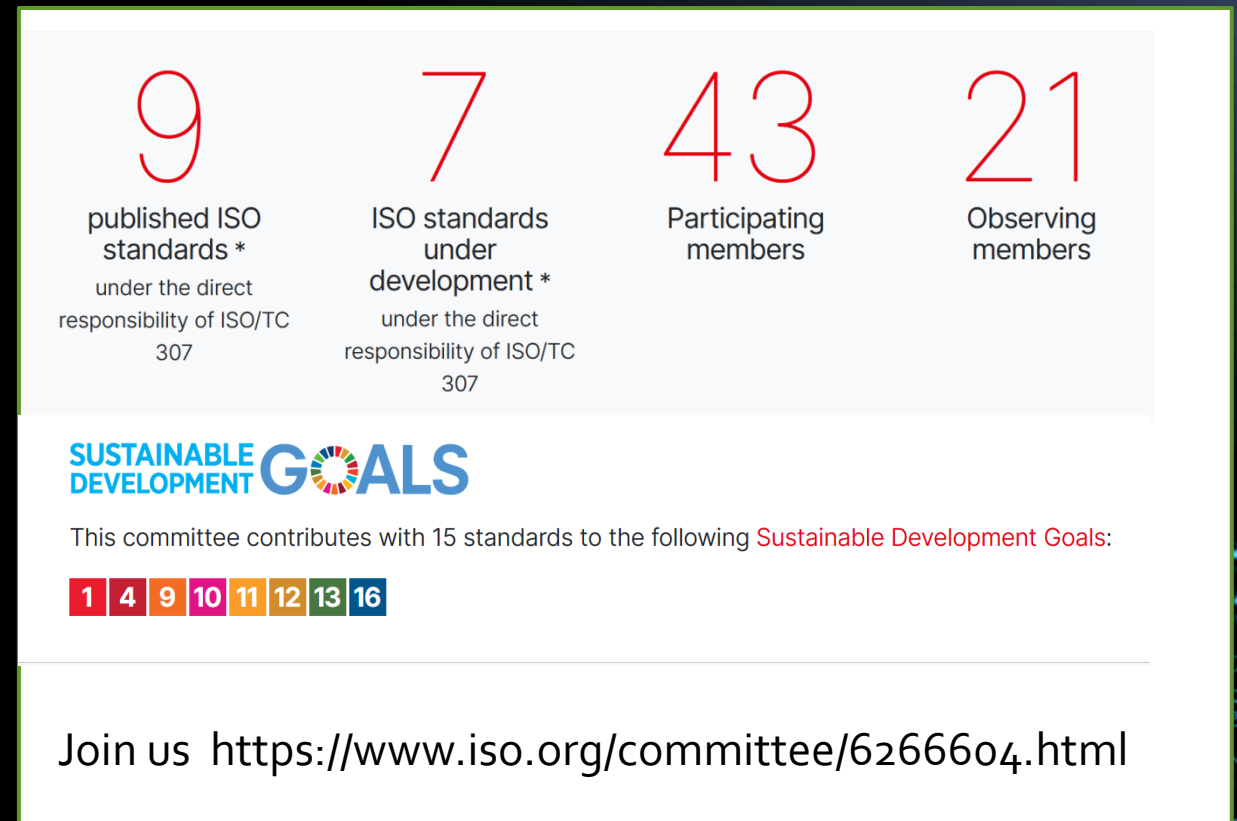


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ISO/TC 307

Blockchain and distributed ledger technologies



9	7	43	21
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SUSTAINABLE DEVELOPMENT GOALS

This committee contributes with 15 standards to the following Sustainable Development Goals:

1 4 9 10 11 12 13 16

Join us <https://www.iso.org/committee/6266604.html>

Introduction to standards for Blockchain and DLT



ISO TC/ 307 - Scope

... meet the growing need for standardization by providing internationally agreed ways of working to improve security, privacy, scalability and interoperability and so encourage the Blockchain and Distributed Ledger Technology's widespread adoption through greater innovation, enhanced governance and sustainable development.

Working Groups

- WG 1 Foundations
- WG 3 Smart contracts and their applications
- WG 5 Governance
- WG 6 Use cases
- WG 7 Interoperability
- JWG 1 Records management
- JWG 4 Security, privacy and identity for Blockchain & DLT

Advisory Groups on:

Digital Currencies / / Physical assets of NFTs

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