

THE ROLE OF STANDARDS IN EMPOWERING THE ADOPTION OF DISTRIBUTED LEDGER TECHNOLOGIES

15/06/2023



Cyprus Organization for Standardization - CYS



- National Standardization Body in Cyprus.
- Independent Body since 1st of January 2005.
- The sole shareholder is the Ministry of Finance.
- Operates under private law.

European & International Standardization Bodies



- **CEN** – European Committee for Standardization



- **CENELEC** – European Electrotechnical Committee for Standardization



- **ETSI** – European Telecommunications Standards Institute



- **ISO** – International Organization for Standardization



- **IEC** – International Electrotechnical Committee



- **ITU** – International Telecommunications Union





MISSION



- To **strengthen** the National Standardization System in order to effectively safeguard our national interests in the European & International standardization arena.
- The **promotion** of International & European standards in order to strengthen the competitiveness of Cypriot companies / organizations, protect the environment and ensure the safety and health of consumers.

Objective: constantly upgrade the quality level in all sectors of the economy and society through the promotion and implementation of standards.

Standards: Catalyst for Innovation

Main Activities of CYS



Managing the
Standardization
System in Cyprus



Informative
lectures &
seminars



Training
seminars/courses



Visits/meetings
with the industry



Publications

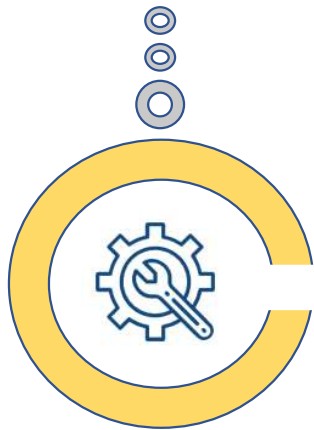


Articles (Mass
Media)

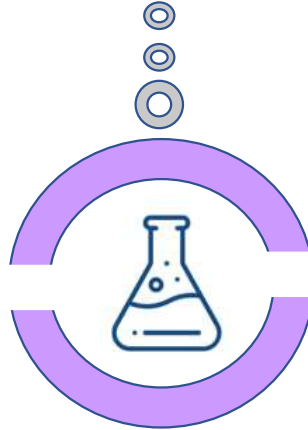
SECTORS

Information Communications Technologies

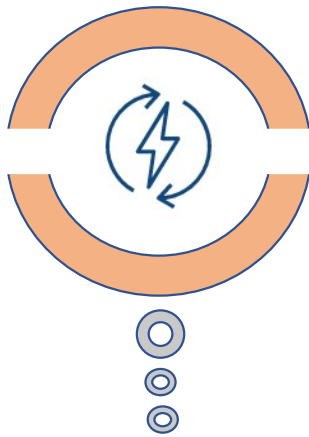
Mechanical



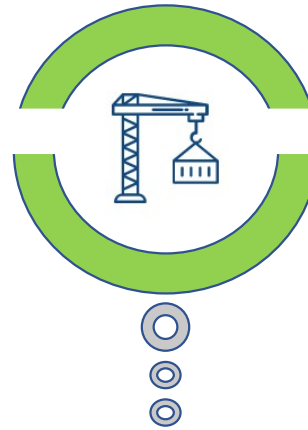
Chemical



Electrotechnical



Civil Engineering



Services – Finance



National Standardization System

NATIONAL MIRROR COMMITTEES

- Monitor the work of European and International Technical Committees
- **Represent and develop the National position on European and International DRAFT Standards** (Public Enquiry and Final Vote Stages)

NATIONAL TECHNICAL COMMITTEES

- **Development of national standards, specifications etc**

EUROPEAN/INTERNATIONAL TECHNICAL COMMITTEES

- **National Technical Experts Participate actively in the TC**
- Votes the documents
- Attend the meetings of the TC

✓ Ways of participation...

NATIONAL MIRROR COMMITTEES (ICT)



➤ Telecommunications Technologies



➤ **Blockchain and Distributed Ledger Technologies**

➤ Intelligent Transport Systems

➤ Artificial Intelligence



➤ Cybersecurity and Data Protection





National Technical Experts in European and International ICT standardization Committees

- Blockchain and Distributed Ledger Technologies – ISO TC 307
- Information Security / Cybersecurity - ISO/IEC JTC 1/SC 27
- Financial Services – ISO TC 68
- Cybersecurity and Data Protection" CEN/CLC/JTC 013 .
- Artificial Intelligence - ISO/IEC JTC 1 SC 42
- Coding of audio, picture, multimedia and hypermedia information - ISO/IEC JTC 1/SC 29.
- Information Technologies – JTC 1

ISO TC 307

Blockchain & Distributed Ledger Systems



❖ ISO/TC 307, blockchain and distributed ledger technologies, has been set up to meet the growing need for standardization in this area by providing internationally agreed ways of working with it to improve security, privacy and facilitate worldwide use of the technology through better interoperability.

- WG 1 Foundations;
- JWG 4 Security, privacy and identity for Blockchain and DLT
- WG 3 Smart Contracts ;
- WG 5 Governance;
- WG 6 Use cases;
- WG 7 Interoperability
- WG 8 Non – Fungible Token

ISO TC 307

Blockchain & Distributed Ledger Systems



Published Standards

[ISO/TS 23635:2022](#)

Blockchain and distributed ledger technologies — Guidelines for governance

[ISO/TR 3242:2022](#)

Blockchain and distributed ledger technologies – Use cases

[ISO/TR 23455:2019](#)

Blockchain and distributed ledger technologies — Overview of and interactions between smart contracts in blockchain and distributed ledger technology systems

[ISO/TR 23644:2023](#)

Blockchain and distributed ledger technologies (DLTs) — Overview of trust anchors for DLT-based identity management

ISO TC 307

Blockchain & Distributed Ledger Systems



Ongoing Work....

[ISO/WD TR 23642](#)

Blockchain and distributed ledger technologies - Overview of smart contract security good practice and issues

[ISO/WD 7603](#)

Decentralized Identity standard for the identification of subjects and objects

[ISO/WD TR 23642](#)

Blockchain and distributed ledger technologies - Overview of smart contract security good practice and issues

[ISO/AWI 20435](#)

Representing Physical Assets using Non-Fungible Tokens

CEN/CENELEC JTC 19 “Blockchain & DLTs Technologies



Developing Standards in :

- Organizational frameworks and methodologies using Blockchain including IT management systems;
- Processes and products evaluation schemes & distributed ledger guidelines.
- The JTC 19 will focus on European requirements, especially in the legislative and policy context which could support the EU Digital Single Market and/or EC Directives/Regulations. GDPR, eIDAS, NIS, Cybersecurity Act, 5AMLD, SDGR, Data Act Regulation

Working Group 1 – Decentralized Identity Management

Working Group 2 “Environmental sustainability

CEN/CENELEC JTC 19 “Blockchain & DLTs Technologies



Standards under development :

- Decentralised Identity Management Model based on Blockchain and other Distributed Ledgers Technologies. – Part 1: Generic Reference Framework
- Environmental and Sustainability classification methodology of consensus mechanisms”
- "Sustainability Taxonomy of applications based on Blockchain and DLT s”.

ETSI Industry Specific Group PDL



- ❑ Provide the foundations for the operation of permissioned distributed ledgers, with the ultimate purpose of creating an open ecosystem of industrial solutions to be deployed by different sectors,

The ISG PDL will produce both (Group Reports) & (Group Specifications) for :

- for the **operation of permissioned distributed ledgers, including interfaces/APIs/protocols and information/data models**
- Reports providing a descriptive **Proof-of-Concept (PoC) framework** with minimum requirements, templates, and process description
- Business Use cases and related requirements for DLT's

Published Reports and Specifications



- PDL-001 - Landscape of Standards and Technologies
- PDL-002 - Applicability and Compliance to Data Processing Requirements
- PDL-004 - Smart Contracts PDL System Architecture and Functional Specification
- PDL-005 - Proof of Concepts Framework
- PDL-006 - Inter-Ledger interoperability
- PDL-009 - Federated Data Management
- PDL-010 - Operations in Offline Mode
- PDL-011 - Specification of Requirements for Smart Contracts' architecture and security
- PDL-012 - Reference Architecture
- PDL-013 - Supporting Distributed Data Management
- PDL-015 – Reputation Management

Ongoing Work



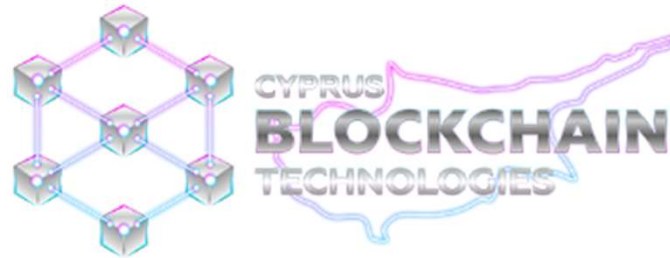
- PDL-016 - Assessment for Smart Contracts and oracles
- PDL-017 - eIDAS Applicability: Qualification of a PDL
- PDL-018 - Redactable Distributed Ledgers
- PDL-019 - PDL Services for Identity and Trust Management
- PDL-020 - Wireless Consensus Network
- PDL-021 – 3GPP use cases
- PDL-022 – PDL use in supply chain management

Blockchain and Distributed Ledger Technologies

Way forward...

The Cyprus Organization for Standardization will strengthen the relationships with the Local Blockchain Community deriving out of Public and the Private Sector with the following objectives:

- ❖ to observe and evaluate the standardization work of International and European Standardization on Blockchain and DLT's.
- ❖ Support in establishing European and International Standards in local regulations and implementation among Industry



THANK YOU FOR YOUR ATTENTION!!!!