



INTERNATIONAL TELECOMMUNICATION UNION
TELECOMMUNICATION STANDARDIZATION BUREAU

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Contact: Vijay Mauree

Tel: +41 22 730 5591

Fax: +41 22 730 5853

E-mail: dcgi-secretariat@itu.int

To:

- Administrations of Member States of the Union;
- ITU-T Sector Members;
- ITU-T Associates;
- ITU Academia

Copy to:

- The Chairmen and Vice-Chairmen of Study Groups;
- The Director of the Telecommunication Development Bureau;
- The Director of the Radiocommunication Bureau;
- The Directors of ITU Regional Offices

Subject: First Meeting of Digital Currency Global Initiative, a collaboration between ITU and Stanford University, to be held online on 22-23 July 2020

Dear Sir/Madam,

1 I am delighted to announce the establishment of the [Digital Currency Global Initiative](#), a collaboration between the International Telecommunication Union (ITU) and Stanford University, United States of America. The first meeting of the Digital Currency Global Initiative and its three working groups will take place online on **22-23 July 2020 at 15:30 – 18:00 (CEST)**, on both days.

2 The objectives of the Digital Currency Global Initiative are:

- Conduct further research on technical architecture, security, the technical implications and challenges in deployment caused by regulatory and policy requirements for Central Bank Digital Currency (CBDC) and other digital currencies, technology trends in digital currency and the use cases related to financial inclusion, operational efficiency and interoperability;
- Construct a set of metrics by which to evaluate the robustness of various digital currency technologies against the requirements set by various stakeholders;
- Identify areas for standardization to enable implementation of digital currency;
- Organize a conference on an annual basis to share information on best practices, technical standards and lessons learned on digital currency implementation.

3 The Digital Currency Global Initiative aims to provide an open and neutral platform for dialogue, knowledge sharing and research on the applications of Central Bank Digital Currency and other digital currency implementations by bringing together all stakeholders from the ecosystem.

4 The Digital Currency Global Initiative will continue the work initiated by [ITU-T Focus Group Digital Currency including Digital Fiat Currency \(FG DFC\)](#), on pilot implementations, use cases, applications and developing specifications for technical standards that will foster adoption, universal access and ultimately financial inclusion. Three working groups have been set up under the Digital Currency Global Initiative.

5 The working groups (WG) are Architecture, Interoperability Requirements and Use Cases WG, Policy and Governance WG and Security and Assurance WG. These working groups will be meeting on 22-23 July as well. More information about the Digital Currency Global Initiative and the working groups terms of reference can be found in the concept note at **Annex 1**.

6 A draft agenda for the meeting will be available on the Digital Currency Global Initiative [homepage](#). **Please register at <https://www.itu.int/net4/CRM/xreg/web/registration.aspx?Event=C-00007986> by 16 July 2020.** Please note that e-meeting will be hosted on [MyMeetings](#) and that registration is mandatory. The meeting will be held in English only.

7 Participation in the meeting of the Digital Currency Global Initiative and its working groups is free of charge and open to all individuals coming from countries that are Members of ITU who are interested to contribute to the work. This includes individuals who are also members or representatives of interested standards development organizations, central banks, digital currency technology companies, payment system providers, fintech companies, IT security companies, Academia and policymakers.

8 In order to participate in the Digital Currency Global Initiative and keep abreast of the latest news, updates and meeting invitations, you are invited to subscribe [here](#) to the mailing list (dcgi@lists.itu.int) and collaboration site that will allow you to access all meeting documents. Subscription is open to holders of ITU TIES and ITU user accounts. A user guide is available [here](#).

9 For any questions regarding the Digital Currency Global Initiative, please contact Mr Vijay Mauree, Programme Coordinator, ITU, at (dcgi-secretariat@itu.int).

Key deadline:

16 July 2020	- Register here to the first meeting of the Digital Currency Global Initiative
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I look forward to your collaboration and wish you a very productive first meeting.

Yours faithfully,

(signed)

Chaesub Lee
Director of the Telecommunication
Standardization Bureau

Annex: 1

Annex 1: Digital Currency Global Initiative (DCGI) Concept Note

1. Introduction

The Digital Currency Global Initiative ("DCGI") is a joint collaboration of the International Telecommunication Union (ITU), a United Nations specialized agency for Information Communication Technologies (ICT) and telecommunications, based in Geneva Switzerland and Stanford University's Future of Digital Currency Program, based in Silicon Valley USA. The Initiative will continue the dialogue and research initiated by the FG-DFC on pilot implementations, use cases, applications and developing specifications for technical standards that will foster adoption, universal access and ultimately financial inclusion. In this document, Digital Currency (DC) is considered as all digital currencies in any form including but not limited to Cryptocurrencies (CC) based on Distributed Ledger Technology (DLT), Central Bank Digital Currencies (CBDC), Digital Fiat Currency (DFC) and any hybrid variants including stablecoins (SC).

The collaboration will work towards maintaining the neutral, open access, and conducive environment of the FG DFC where central banks, fintech innovators, technology providers, United Nations specialized organizations, payment service organizations, ICT security and other related industries and professionals. This platform will allow for sharing of industry best practices and lessons learned on implementations of DCs. Stanford University's School of Engineering will be the main technology partner for the Digital Currency Global Initiative.

2. Mission

The mission and purpose of the Digital Currency Global Initiative is to pursue the following objectives:

- Conduct further research on technical architecture, security, the technical implications and challenges in deployment caused by regulatory and policy requirements for Central Bank Digital Currency and other DCs, technology trends in digital currency and the use cases related to financial inclusion, operational efficiency and interoperability;
- Construct a set of metrics by which to evaluate the robustness of various digital currency technologies against the requirements set by various stakeholders;
- Identify areas for standardization to enable implementation of digital currency; and
- Organize a conference on an annual basis to share information on best practices, technical standards and lessons learned on digital currency implementation.

The main outcomes of the Initiative's vision will contribute towards the United Nations Sustainable Development Goals (SDG):

- **SDG 1: No poverty**—"By 2030, ensure that all men and women, in particular the poor and the vulnerable, have...access to financial services including microfinance".
- **SDG 9: Industry, innovation and infrastructure**—by providing small enterprises with access to financial services (digitizing payments thereby reducing the need for cash-in and cash-out).
- **SDG 10: Reduced inequalities**—reducing the costs for remittances.

3. Pillars and Goals

The Digital Currency Global Initiative goals are to drive the synergistic engagement, innovative use, and standardization of Digital Currencies, which are the three pillars of the Initiative. The goals of each pillar are described below.

- **Engagement Pillar:** The Initiative will drive synergistic engagement between Digital Currency ecosystem stakeholders by:
 - a. Organizing workshops and an annual event to convene industry leaders for discussion, consensus building and dissemination the findings of the working groups.
 - b. Sharing knowledge and lessons learned on best practices, technical requirements and implementations.
 - c. Fostering dialogue with Central Banks and regulators on the effective deployment of digital currency systems

- **Innovative Use Pillar**

Drive industry efficiency through the establishment of evaluation methods and metrics to ensure high confidence and repeatable validation and benchmarking of performance, security and resilience across ecosystem

The Initiative will drive the innovative use and application of Digital Currencies through:

- a. Research on innovative emerging technologies and uses cases
- b. Developing a common set of methods and metrics to evaluate the performance, security and resilience of existing and future implementations against a set of common requirements
- c. Testing and evaluation of system and components of implementations using a common measurement reference.
- d. Monitoring and documenting technology trends and future implementations and their lessons learned as emerging best practices

- **Standardization Pillar**

Development of policy objectives, governance norms, technical requirements for architecture and interoperability of digital currency systems and work towards identification of areas for standardization in coordination with ITU and other Standards setting bodies

The Initiative will drive standardization of Digital Currency pilot implementations through the three working groups that will be established:

- a. Research and analysis of DC implementation use cases, DC platform architectures, identification and authentication technologies, fraud prevention, consumer protection, cryptographic mechanisms and other key technical matters relevant for deployment of DCs.
- b. Develop technical guidelines and best practices for interoperability to enable the effective interconnection of DC technologies with existing payment systems
- c. Develop reliable methods and metrics to enable the consistent and high confidence evaluation and benchmarking of performance, scalability, and operational efficiency.
- d. Develop security and assurance models and metrics of threats and vulnerabilities and the application of security controls in ways that improve clarity and reduce complexity.

The three working groups set up under the Standardization Pillar are:

- Architecture, Interoperability Requirements and Use Cases (AIRU)
- Policy and Governance (PG)
- Security and Assurance (SA)

The work will be conducted by subject matter and domain experts across academia, government, industry and standard's setting organizations in all related fields including Standards, Regulatory, Audit and Certification organizations, Service Providers, Central Banks and Banks; Technology Providers, System Integrators, Implementors, Supply Chain, and experts in Security, Privacy & Trust Emerging Law and policy.

4. Working Groups Terms of Reference and Deliverables

4.1 Architecture, Interoperability Requirements and Use Cases Working Group

Focus on the operational challenges of Digital Currency implementations including operational efficiency (cost of operations), scalability (performance at scale), reliability (highly repeatable), maintainability (change management), interoperability (Supply chain integration), and resilience (highly recoverable)

The working group will carry out research and validate the architecture, characteristics and technical requirements for interoperability for different digital currency use cases. The main tasks that will be undertaken include inter-alia:

- a) Collect and document information on current initiatives and activities from the stakeholders, including Open Source Initiatives involved in digital currency implementations;
- b) Map the functional network reference architecture and process components required to implement digital currency and integration with existing payment systems for interoperability;
- c) Analyse and evaluate the current status of digital currency technologies, emerging trends and their maturity;
- d) Identify use cases, technical requirements and applications of digital currency;
- e) Identify characteristics and functional requirements for services based on digital currency; and
- f) Make recommendations on requirements for technical standards on the architecture and for interoperability with existing systems.

The main deliverables of the working group are:

- a) Develop online repository on digital currency implementations with detailed information on functional characteristics, use cases, architecture, governance and policies implemented, technology used.
- b) Develop technical report on the functional requirements for Central Bank Digital Currency for wholesale and retail CBDCs and technology trends that could lead to innovative applications.
- c) Develop a set of metrics by which to benchmark/evaluate the robustness, performance and characteristics of various digital currency technologies against the requirements set by various stakeholders.
- d) Develop technical report describing and addressing the standardization gaps and identifying future standardization work for digital currency.

4.2 Policy and Governance Working Group

The working group will focus its research on policy, legal and governance implications of Digital Currency in society for financial inclusion. The group will also monitor technology trends and use cases based on lessons learned from all implementations.

The working group will bring together Central Banks, policymakers and technology providers to work on the following tasks:

- a) Study and analyze the technology implications on governance for digital currency platforms taking into account those based on integrating DCs with legacy systems
- b) Study and analyze the need for technical standards for DCs in general including wholesale and retail CBDC, privately issued stablecoins cross border remittances and for use by international organizations for humanitarian aid.
- c) Study and analyse technology competitiveness issues that may hinder the deployment of digital currency for financial inclusion.
- d) Develop policy guidance on how digital currency could help in reducing the financial inclusion gap.

The main deliverables of the working group are:

- a) Develop a policy toolkit which can be used by policymakers and regulatory authorities implementing digital currency at national level.
- b) Organise regional thematic workshops in order to collect inputs from various stakeholders. The workshops will bring together the Telecommunication Regulators, Financial Regulators, Policy makers and other relevant parties to identify issues and priorities, exchange information and best practices through peer learning and knowledge dissemination processes and identifying possible policy interventions for implementing digital currency to meet the objectives of financial inclusion.
- c) Develop high level policy principles for meeting interoperability, security, Anti Money Laundering, identification and authentication and data privacy requirements for digital currency

4.3 Security and Assurance Working Group

Focus on the development of flexible multi-assurance security best practice profiles and templates that come with guidelines for the reasonable protection of Digital Currencies and their implementations

The working group will bring together security practitioners from the digital currency ecosystem to work on the following:

- a) Build DC issuance & DC transaction processes templates including underpinning asset and process classes.
- b) Map the relationships between threats to and vulnerabilities of DC System and security countermeasures. Recommend best practices
- c) Develop security methods and metrics for the DC implementation evaluation and validation
- d) Develop flexible and customizable multi-assurance DC security assurance profile templates that can facilitate the consistent management of DC security and compliance and enable a common basis of benchmarking
- e) Showcase DC security technologies and their use cases for evaluation

The main deliverables of the working group are:

- a) A technical report on cyber risk management, security assurance profiles, security control frameworks and security assurance best practices designed to protect Digital Currencies and their implementations
- b) A technical report on the security metrics and criteria for validation of the security of digital currency implementations
- c) A security toolkit and evaluation platform aimed at Security practitioners and managers to manage security risks for digital currency implementations

5. Annual Event: Digital Currency Conference

The main objectives of the annual event under the Engagement pillar are to:

- Provide a unique platform to share lessons learned about digital currency technologies, pilot implementations, interoperability and governance;
- Showcase digital currency pilot implementations and innovations taking place at the global level; and
- Provide thought leadership on digital currency strategies, standards and innovations as an enabler to bridging the financial inclusion gap and achieving the United Nations Sustainable Development Goals.

The event will be organized by the ITU jointly with Stanford University and will be open to everyone. The intended audience are Central Banks, Digital Currency technology companies, Payment system providers, Fintech companies, Standard Setting Bodies, IT security companies, industry for a, academia and policymakers.

6. Innovative Use Pillar

The main objectives of the Innovative Use pillar will be to study pilot implementations of CBDCs and other digital currencies and to develop the appropriate benchmarking and evaluation frameworks through the Digital Currency Lab to be operated by Stanford University. A secondary future objective will be to develop an incubator for digital currency startups that are participating in the work of the DCGI.

7. Digital Currency Lab: Evaluation and Benchmarking of digital currency platforms

In order to achieve the stated DCGI objective to drive the development of DC standards, the Working Groups will establish a process to develop and validate the requirements, specifications and technical evaluation criteria to enable benchmarking of digital currency platforms through ecosystem collaboration and consensus.

The creation of proposed specifications will be generated by Ecosystem stakeholders and domain experts participating in the three Working Groups. Taking a problem-solving approach, the Working Group experts will analyze challenges and propose “untested” solutions.

These solutions and proposed specifications are then evaluated using real world DC implementations in order to determine the appropriateness and value in their intended purpose, for example protection through the application of security controls. This iterative process between the

creation and validation of specifications continues until all stakeholders have reached consensus on applicability and completeness.

Essential to achieving the outcome of sound and acceptable published standards is the development of reliable models, evaluation methods and metrics to ensure a repeatable and high confidence basis for assessment and benchmarking. The process of validation starts with identifying the aspects of operational performance and security needs that require technical evaluation criteria and metrics which can be defined and standardized. The various validation test specifications and benchmarking process would also be standardized. The above work would be done in the Working Groups and then implemented and tested in the Digital Currency Lab.

This is the “what needs to be validated.” This includes:

- Performance characteristics of Scalability (performance at scale), Efficiency (cost of operations), Interoperability (with existing and legacy systems), Reliability (highly repeatable), Maintainability (change management), Resilience (highly recoverable).
- Protection characteristics of DC components vulnerabilities as attack targets; threat vectors that can exploit the target vulnerability; security countermeasures that can mitigate the threat and reasonable assurance levels which yield acceptable residual risk.

The follow-on question to “what needs to be validated” is “validated for what?” This includes whether the DC System asserted:

- Is what it purports to be?
 - Meets a set of requirements
 - Meets a specific assurance level
-