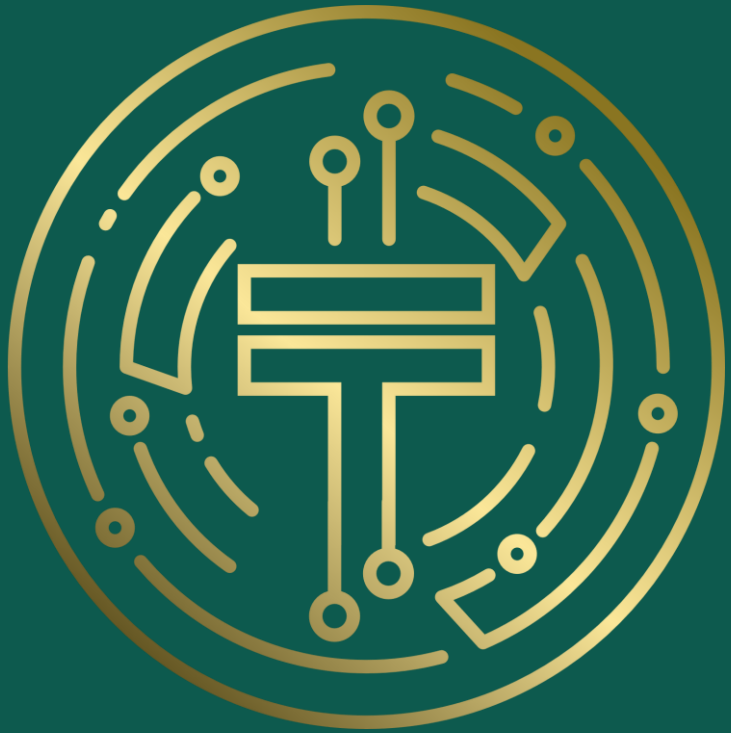




NATIONAL BANK OF KAZAKHSTAN

Overview

CENTRAL BANK DIGITAL CURRENCY (CBDC) EXPLORATION IN KAZAKHSTAN: DIGITAL TENGE PROJECT



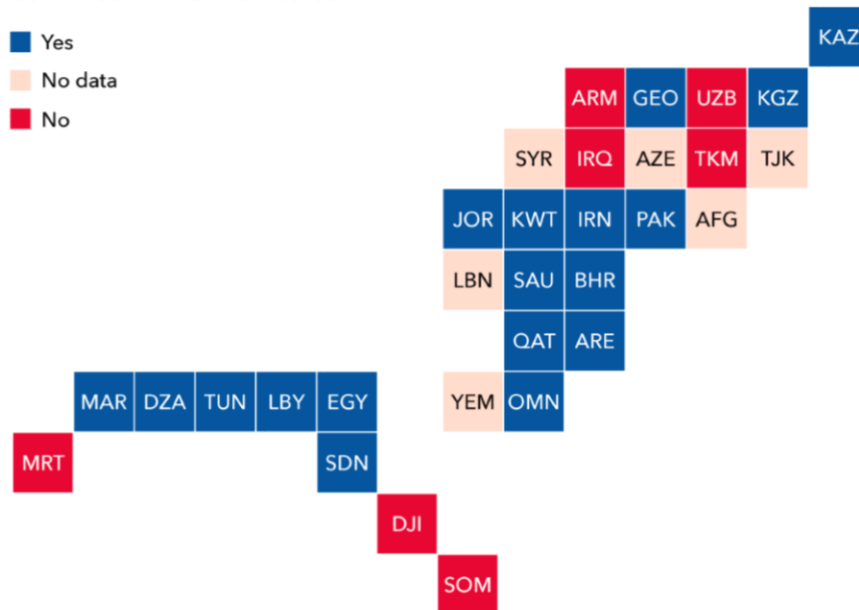
KAZAKHSTAN IS ONE OF THE LEADERS IN THE CBDC EXPLORATION IN ASIA AND THE MIDDLE EAST

Digital future

Central banks in the Middle East and Central Asia are increasingly examining the role of digital currencies.

Countries with CBDC interest

- Yes
- No data
- No



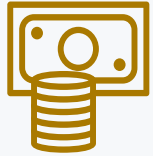
Source: IMF desk survey.

Note: Data labels in the figure use International Organization for Standardization (ISO) country codes. CBDC = central bank digital currency. ME&CA = Middle East and Central Asia.

IMF

- ✓ Two years of R&D led to the **Digital Tenge platform being launched in limited production mode in 2023**
- ✓ «Many ... countries currently exploring a CBDC are at the research stage. **Kazakhstan is the most advanced after two pilot programs for the Digital Tenge» (IMF, 2024).**
- ✓ In 2024, the Digital Tenge project **won the award** of the international organization Currency Research in the “**Leadership in Digital Currencies Adoption**” category.

WHAT IS **DIGITAL TENGE**?



Third digital form of national currency based on a **hybrid-decentralized platform**



Token-based model



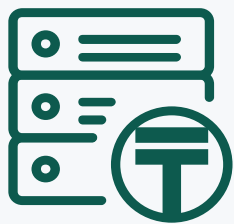
Two-tier architecture

(services for end users are provided by commercial banks)



Implemented **token-level programmability**

IN 2023, DIGITAL TENGE WAS LAUNCHED IN LIMITED PRODUCTION MODE



INDUSTRIAL ENVIRONMENT

✓ CBDC CARD
SCENARIO



✓ DIGITAL VOUCHERS SCENARIO
FOR FREE SCHOOL MEALS



R&D ENVIRONMENT

✓ CROSS-BORDER PAYMENTS
via SWIFT's CBDC Connector

✓ ISSUING STABLECOINS BACKED BY DT
in collaboration with Binance and KASE

✓ INNOVATIVE SCENARIOS PROVIDED BY MARKET
PARTICIPANTS
*Pedometer, Acceptance of payments in DT with instant
and automated VAT deduction*

✓ OFFLINE PAYMENTS
*R&D 2022 - conducted up to 15 transactions in a chain in
offline mode*

IN 2024, TWO MAIN ARCHETYPES OF USE CASES WERE IMPLEMENTED

Marked Tokens

Condition-based payment

«Programmable rules»:

If the recipient meets criteria A, B and C, the funds can be transferred

▪ NATIONAL FUND

- ✓ reducing inflationary pressure
- ✓ ensuring transparency across the supply chain
- ✓ eliminating unproductive intermediaries

...via marking with specific parameters

▪ ROAD REPAIR PROJECTS THROUGH GOVERNMENT PROCUREMENT

- ✓ ensuring transparency across the supply chain
- ✓ eliminating unproductive intermediaries

...via marking with specific parameters

▪ DT-ENABLED VALUE ADDED TAX REFUND

- ✓ simplifies verification for tax authorities
- ✓ accelerates VAT refunds for exporters
- ✓ enhances efficiency of tax collection

...via marking the VAT amount during to conduct transaction

Holding (Encumbrance)

Payment triggered by an event

«Programmable rules»:

If the event programmed in the smart contract occurs, transfer the funds

▪ SUBSIDIES FOR THE PURCHASE OF AGRICULTURAL MACHINERY AND LIVESTOCK

- ✓ enhancing control over public spending
- ✓ increasing operational efficiency

... via using the “payment versus delivery” principle

TRIGGER EVENT #1 - State system confirmation of machinery transfer to the agricultural producer

TRIGGER EVENT #2 - State system confirmation of livestock ownership transfer to the farmer

✓ *The archetype is technologically ready for industrial-scale deployment*

The value of the programmability of the digital tenge can only be realized if there are **trusted reference data sources and an adapted business processes** in place

WHAT'S FOR 2025?

- ❖ New participants (banks and legal entities) will be connected to the platform
- ❖ B2G/G2B scenarios will be scaled up: digital VAT expansion, transparent public spending
- ❖ New retail scenarios will be implemented, e.g. digital financial assets
- ❖ Development of a regulatory framework
- ❖ **Decision on production release of the Digital Tenge platform will be made in 2025**

WE ARE OPEN FOR COLLABORATION



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Digital Tenge
Hub

