

**THE INTERNATIONAL RESEARCH INSTITUTE
FOR ADVANCED SYSTEMS**

UNIT

Decentralized monetary ecosystem

<https://unitfoundation.org>

April 2025



Executive Summary

What we offer

- UNIT is a new decentralized monetary ecosystem offering unit of account and measurement, medium of exchange and store of value using advanced distributed ledger technologies as presented here: <https://unitfoundation.org>
- Operational framework based on intergovernmental organization [IRIAS](#) endowed with international legal personality and global tax exemptions supported by the financial services working group of the BRICS+ Business Council
- Agreement with one of the largest metal and mining companies to procure payments for their exports and imports

Which problems do we solve

- Cross-border payments – our solution is reliable, quick and economically efficient in terms of commissions, exchange rate and liquidity and can serve as a back-up channel/spare parachute with TAM globally \$500bn+ and \$8-10bn in Russia
- Unfair pricing and commodity trading via launch within the UNIT ecosystem of a new fair and efficient Eurasian Mercantile Exchange for commodity exports from Russia valued at \$435bn in 2021
- Restricted capital flows – UNIT can simplify and facilitate development of new financial products for FDI with average annual inflow in developing countries exceeding \$770bn

Next steps

- Seed round for development of UNIT MVP for servicing cross-border commodity trade with \$100m monthly commitment
- Recognition as an international currency within experimental regulatory mode in several BRICS+ countries
- Development of credit products, risk management tools and investment schemes in UNIT

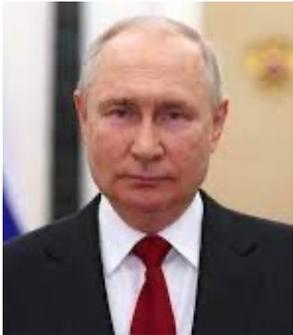


Functionality of existing monetary solutions

	Fiat currency	Gold	BTC	USDT/XAUT
Key factors	<ul style="list-style-type: none">+ historical convenience- inflation- USD domination	<ul style="list-style-type: none">+ rarity and durability- limited scalability- inconvenience	<ul style="list-style-type: none">+ decentralization- lack of understanding- speculative volatility	<ul style="list-style-type: none">+ convenience- cross-technology- trust to the operator
Unit of account				
Medium of exchange				
Standard of payment				
Store of value				



Our leaders require new alternatives ...



RUSSIA

We are building this joint work with our BRICS partners, and Russia's role can be quite substantial. We have created the New Bank, and we are in the process of creating our own currency instruments. What is the best asset to guarantee that if not gold?



CHINA

We need to fully leverage the role of the New Development Bank, push forward reform of the international financial and monetary systems, and increase the representation and voice of developing countries



BRAZIL

The creation of a currency for trade and investment transactions between BRICS members increases our payment options and reduces our vulnerabilities. What we want is to create a currency that allows us to do business without having to buy the dollar



SOUTH AFRICA

We have noted that there is global momentum for the use of local currencies, alternative financial arrangements and alternative payment systems. As BRICS, we are ready to explore opportunities for improving the stability, reliability and fairness of the global financial architecture



... to address global lack of TRUST

Ongoing global **crisis of trust and confidence**:

- domination of permission-based, centrally controlled monetary systems
- politically motivated primary and secondary sanctions and restrictions
- abuse of currencies, communication, settlement and payment infrastructure
- capital controls and protectionism
- unavailability of fair arbitration

Situation may deteriorate due to irresponsible politicking, economic recession and enforceability of digital dollar

Solution – new **reliable financial infrastructure**:

- complementarity to the existing financial infrastructure and regulatory frameworks
- technological decentralization
- scalability through fractal design
- anchoring of the underlying UNIT digital asset by 60% BRICS+ currencies and 40% gold
- transparent development and governance supervised by an intergovernmental organization

UNIT supported by the International Research Institute for Advanced Systems (IRIAS) – acting by its UN statute and Budapest convention



UNIT development and support framework



- IRIAS - an UN-chartered institution founded in 1976

- development of transferable ruble framework for COMECON and advanced computing systems
- IRIAS - custodian of governance for UNIT and facilitator of international expansion
- potential think-tank center for financial infrastructure development for BRICS+
- coordination, alignment and communication of UNIT initiatives on global and national levels
- investments in sustainable development and roll-out of complementary financial infrastructure
- marketing of UNIT among BRICS+ businesses



- working group on financial services and investments

- endorsed and presented by the Russian chapter together with Bank of Russia and government
- validated by Chinese, Indian and South African chapters and submitted for regulatory review



- successful economic integration model ready to support UNIT

- Russia and Kyrgyzstan consented for UNIT pilot in sand-box mode supervised by central banks
- focus on cross-border trade and alternative mercantile exchange for commodities



UNIT core principles

Complementarity

new accounting and settlement unit shall complement rather than replace existing national currencies allowing flexible monetary policies

Efficiency

timely efficient solution for current issues for sanctioned BRICS+ countries, e.g. Russia and Iran

Business efficacy

backed by technological simplicity and regulatory transparency



Inclusivity

Ecosystem is open to businesses from all countries including G-7

Fairness

Accounts, transactions, prices and payments within the new ecosystem shall be immune from western speculators and sanctions

Scalability

UNIT ecosystem may become the cornerstone of emerging new fair financial infrastructure for the world

UNIT 101



- ✓ decentralized via proof-of-stake protocol monetary ecosystem with fractal nodes emitting proprietary settlement and payment units
- ✓ new private or sovereign nodes for issuing new settlement and payment units can be set up under the supervision of IRIAS
- ✓ open API for banks, payment systems, DEX digital platforms supported by a proprietary payment and settlement platform
- ✓ launch of a mercantile exchange operating in UNT with access to loans, insurance and derivative financial products in UNT
- ✓ recognition of UNT as an international currency by national regulators will enhance to their financial sovereignty:
 - remove direct dependence on the currencies of other countries
 - reserve assets remain within sovereign borders
 - possibility of an independent monetary policy focused on growth

✗ not crypto

- value anchored in real assets
- UNT bank accounts

✗ not stablecoin

- no direct peg
- no reverse conversion

✗ not CBDC

- decentralized, value anchored in gold, fully fungible
- apolitical, cannot be indebted or burdened with liabilities



Outline of UNIT key processes

Initial stage

Upon maturity

Access to UNIT ecosystem

- Granted by IRIAS by invitation or after due diligence of willing applicants

- Similar to any popular DEX

Setup of UNIT nodes

- First 3 nodes will be setup by IRIAS and its trade and commercial partners

- According to procedures stipulated in the UNIT rule-book (more on the next slide)

Emission of UNT

- Pilot batches of utility UNIT tokens minted by the node operated by IRIAS

- At any time upon the delivery of the basic components to any authorized UNIT node

Pricing of UNT

- UNT is measured in gold based on info from IRIAS on combined value of components stored at nodes and number of minted tokens

- UNT is priced by local markets based on demand for UNT as a transactional currency for cross-border trade and available supply of it

Purchase of UNT

- Within the UNIT ecosystem for fiat and digital currencies or via public APO

- At any DEX or banks in countries accepted UNT as an international currency

Settlement of UNT in other currencies

- Only within the UNIT ecosystem operating in a regulatory sandbox

- At any DEX or banks in countries accepted UNT as an international currency



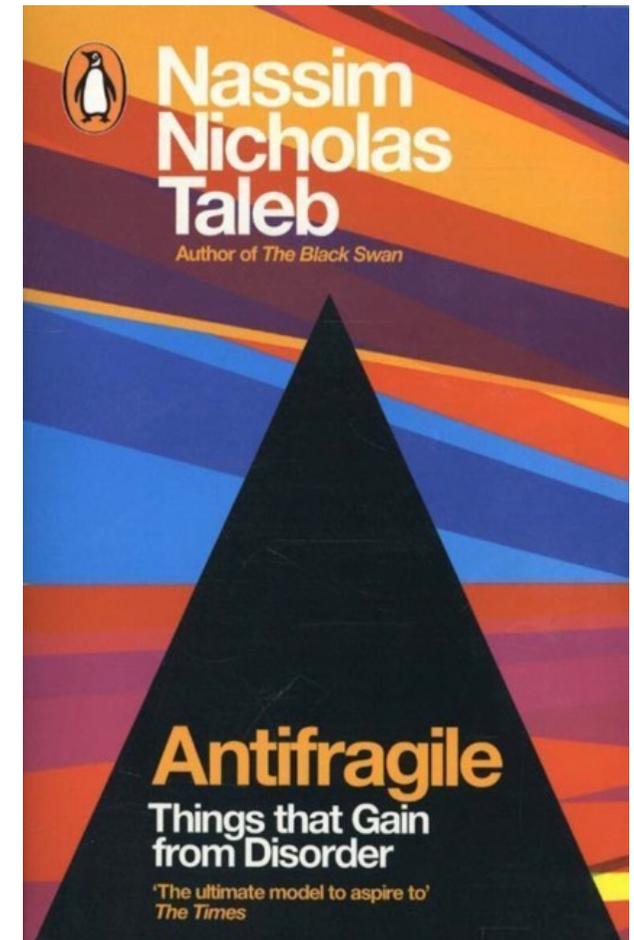
UNIT node setup

- Potential UNIT node proprietor commits to emit a minimum number of UNITs at the launch of the node, and subsequently, minimum number each year - to be used in own cross-border trading activities
- Proposed legal entity for the UNIT node operator must have good business standing, appropriate status in local jurisdiction and no legal, fiscal or similar liabilities potentially impeding node's operations
- UNIT node must be equipped with reliable and secure IT infrastructure and have a secure vault for gold storage (similar to a bank branch) both subject to periodic audits by experts authorized by the IRIAS
- Potential operator must enter into an agreement with an IRIAS-approved security service provider who will advise on security systems, monitor their installation, and then conduct periodic audits
- Alternatively, UNIT node may sign an agreement with a reputable offshore gold vault provider, e.g. Le Freeport Geneve/Singapore, Zurich Embraport, Loomis FZE Dubai, HKIA Precious Metals Depository
- UNIT node operator also must open special bank accounts with the local central bank or a financial institution authorized by the IRIAS and recommended by local regulatory authorities
- Once all these conditions are met, IRIAS initiates voting according to the governance procedures stipulated in the UNIT Rule-book and, if approved, new node goes live and may start emission of UNITs



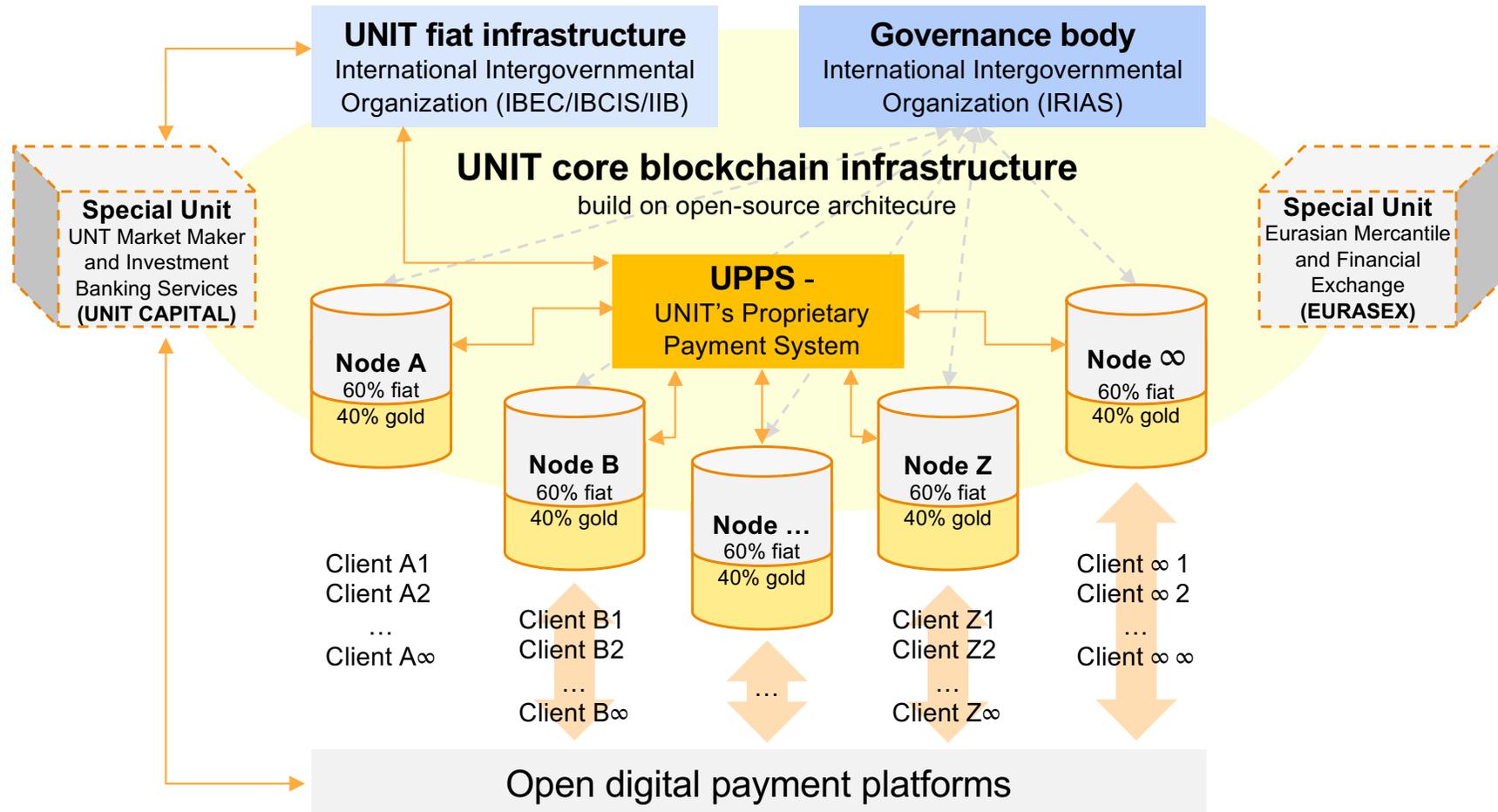
Fractal nodes organization for scalability

- Intrinsic flexibility and the ability to evolve are the core principles of systemic self-optimization or homeostasis of the UNIT ecosystem
- Fractal design of the UNIT ecosystem makes it self-organizing and removes intrinsic incentives and toolset for disruption
- Ability to adapt to the constantly changing environment allows seamless and cost-effective scaling of capacity and usability driven by demand
- Economic and political shocks will certainly affect the UNIT ecosystem, but also are likely to increase its appeal at the expense of fiat currencies
- Scaled fractal ecosystem should be able to survive an abrupt loss of a node hedged by distributed storage across multiple secure locations
- Even in extreme scenarios of intentional node hijacking, the financial consequences will be detrimental mostly for the disrupting party
- Fractal design allows an unlimited number of participants to join and benefit from use of apolitical freely convertible decentralized currency





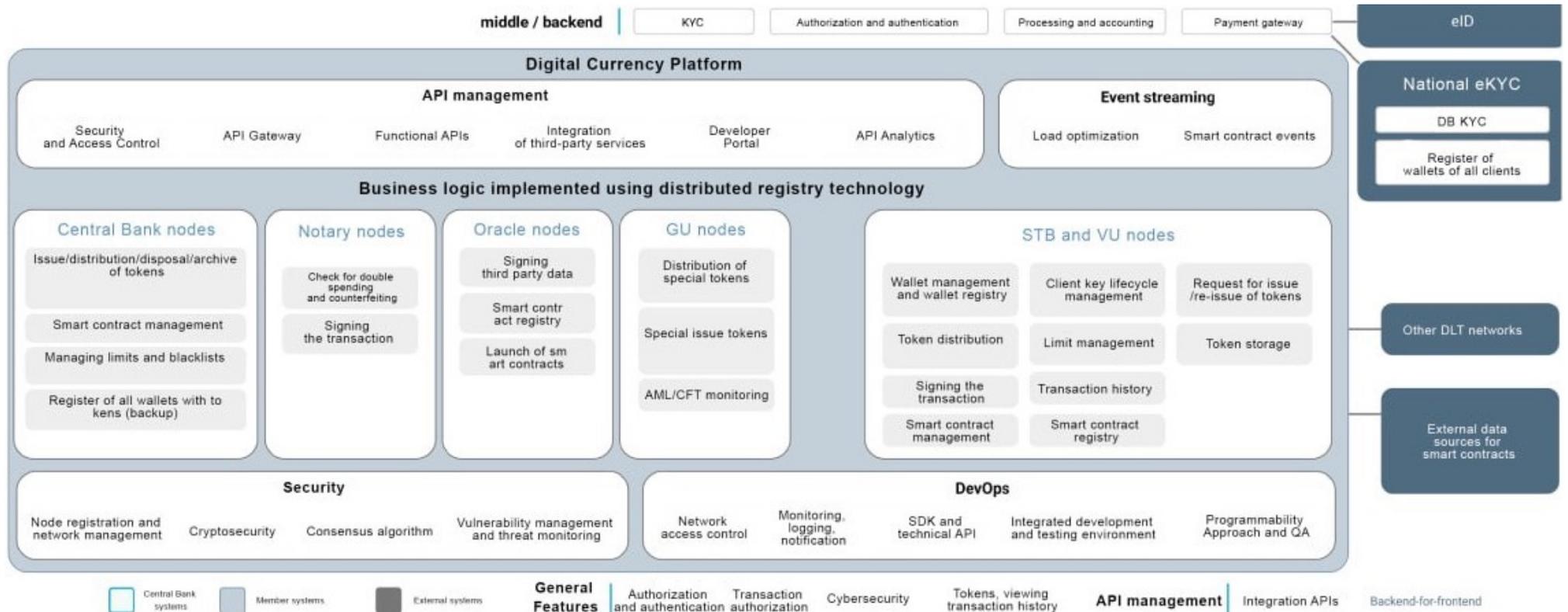
UNIT framework is simple and secure



- Confidential -



Modular architecture

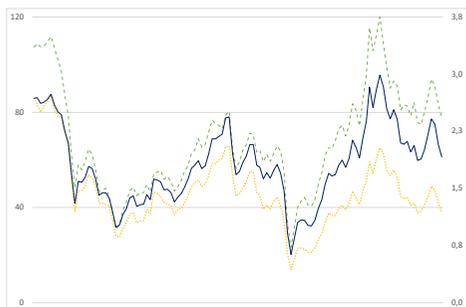




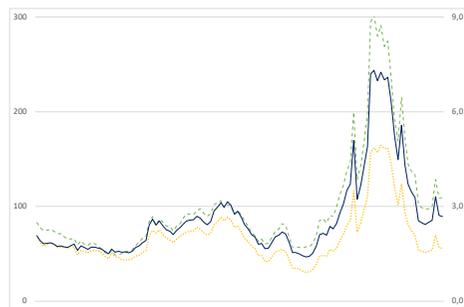
Preliminary testing demonstrates robustness

Asset	31.12.2013							31.12.2023							10 years dynamics		
	Asset value			Value of 1 UNIT issued in 2013				Asset value			Value of 1 UNIT issued in 2013				Asset value		
	per 1 USD	per 1 gram	per 1 UNT	weights	in grams	in local	in USD	per 1 USD	per 1 gram	per 1 UNT	weights	in grams	in local	in USD	vs. USD	vs. GOLD	vs. UNT
RUB	32,88	1 274,88	1 274,88	12%	0,12	152,99	4,65	89,37	5 927,56	3 628,70	4%	0,03	152,99	1,71	-172%	-365%	-185%
BRL	2,36	91,58	91,58	12%	0,12	10,99	4,65	4,85	321,89	197,05	6%	0,03	10,99	2,26	-105%	-251%	-115%
ZAR	10,49	406,88	406,88	12%	0,12	48,83	4,65	18,30	1 213,76	743,03	7%	0,04	48,83	2,67	-74%	-198%	-83%
INR	61,86	2 398,31	2 398,31	12%	0,12	287,80	4,65	83,19	5 517,50	3 377,67	9%	0,05	287,80	3,46	-34%	-130%	-41%
CNY	6,05	234,72	234,72	12%	0,12	28,17	4,65	7,10	470,70	288,15	10%	0,06	28,17	3,97	-17%	-101%	-23%
GOLD	0,03	1,00	1,00	40%	0,40	n/a	15,51	0,02	1,00	0,61	65%	0,40	n/a	26,53	42%	0%	39%
				100%	1,00		38,77				100%	0,61		40,60			
UNT	0,03	1,00	1,00					0,02	1,63	1,00					5%	-63%	0%
USD	1,00	38,77	38,77					1,00	66,32	40,60					0%	-71%	-5%
EUR	0,73	28,14	1 091,13					0,91	60,08	36,78					-25%	-113%	97%

Monthly Oil price
(2013-2023)



Monthly Coal price
(2013-2023)



Monthly Wheat price
(2013-2023)



----- in USD (lhs) ----- in gold grams (rhs) — in UNT* (rhs)

- Complex relationship between derivative and spot prices for commodities driven by multiple factors, such as time, volatility, and interest rates
- Preliminary factor analysis identified strong influence of speculative liquidity inflows and outflows

Source: World Bank Commodity Price Data (The Pink Sheet), <https://www.xe.com/currencytables/>, <https://www.bullion-rates.com/gold/USD/2013-12-history.htm>, <https://www.macrotrends.net>

* presuming UNIT tokens minted on 31.12.2013 as presented in the table above

- Confidential -



UNIT solves key monetary challenges

Triffin's dilemma

As international reserves are primarily composed of US government debt, and the share of the US in the economy is shrinking, the US progressively loses its fiscal capacity to satisfy the rest of the world's demand for international liquidity ¹⁾

Cantillon's effect

When new money is added to the economy, not all prices will raise by the same amount or at the same time because the first recipient of the new money has an arbitrage opportunity of being able to spend money before general value of money declines ²⁾

Impossible Trinity

Countries cannot simultaneously fix their exchange rate, have an open capital account and pursue an independent monetary policy. Only two out of these three objectives are mutually consistent ³⁾

Gresham's Law

Bad money drives good money out of circulation only when the costs of using the good money at a premium are significant ⁴⁾

- Value of UNIT is not affected by government debt or obligations
- Fractal design enables sustainable scalability
- UNIT is backed by real assets including 40% gold
- Newly minted UNITs become instantly available to all
- UNIT lessens dependency on currencies of third countries
- Participating governments can maintain their sovereign policies
- 60% of local fiat currencies in the UNIT reserve basket
- Technology minimizes costs

1) BIS Working Papers No 684 "Triffin: dilemma or myth?" by Michael Bordo

2) BIS Working Papers No 684 "Triffin: dilemma or myth?" by Michael Bordo

3) BIS Working Papers No 35 "Capital flows, exchange rate regime and monetary policy" by Sweta Saxena

4) Federal Reserve Bank of Minneapolis's Quarterly Review (winter 1986) "Gresham's Law or Gresham's Fallacy?" by Arthur Rolnick



UNIT development via strategic partnerships

Commercial partners

- proprietary UNIT node
- trade flow at 5-10% of exports:
 - buyers abroad ready to pay for imports in UNT
 - competitive pricing in UNT
- counter trade flows:
 - equipment and spare parts
 - services and liabilities
- UNT emission at 1-2% of exports
- UNIT marketing among clients and trade partners
- development of a mercantile trading platform (exchange)

Financial infrastructure

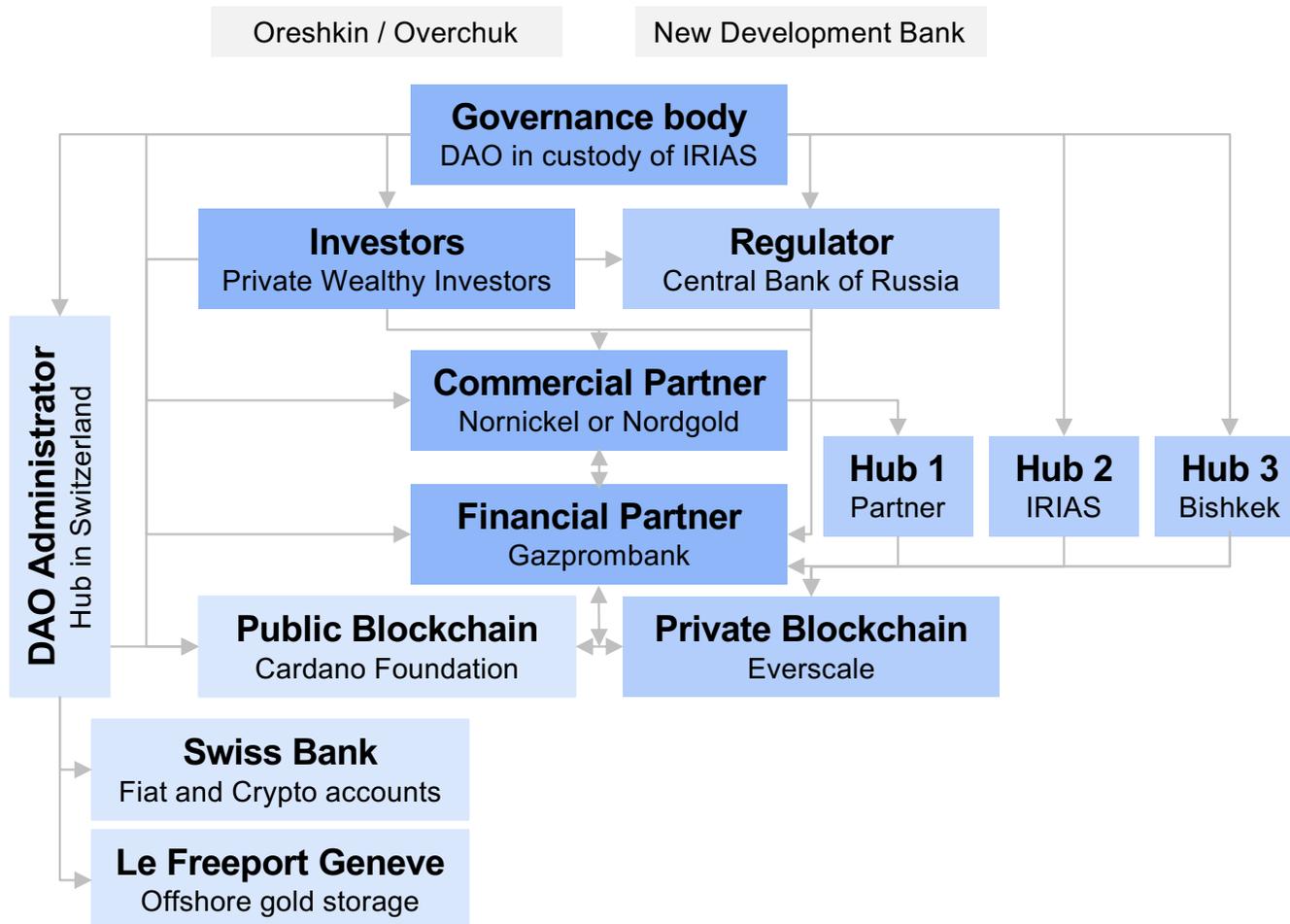
- market making for RUB/UNT with daily trading at 100m+ RUB
- open bank accounts in UNT
- open corresponding accounts in UNT in countries where regulators recognize UNT as currency
- development of standard banking and insurance products in UNT
- marketing of UNIT among clients and business partners
- open of branches and clearing houses in partner countries

Technology partners

- optimization of tech parameters for MVP and testing
- access to flexible tech solutions and support infrastructure
- receipt of required certificates and licenses in partner countries
- development of proper UNIT platform solution
- information security and confidentiality
- UNIT marketing among clients and business partners



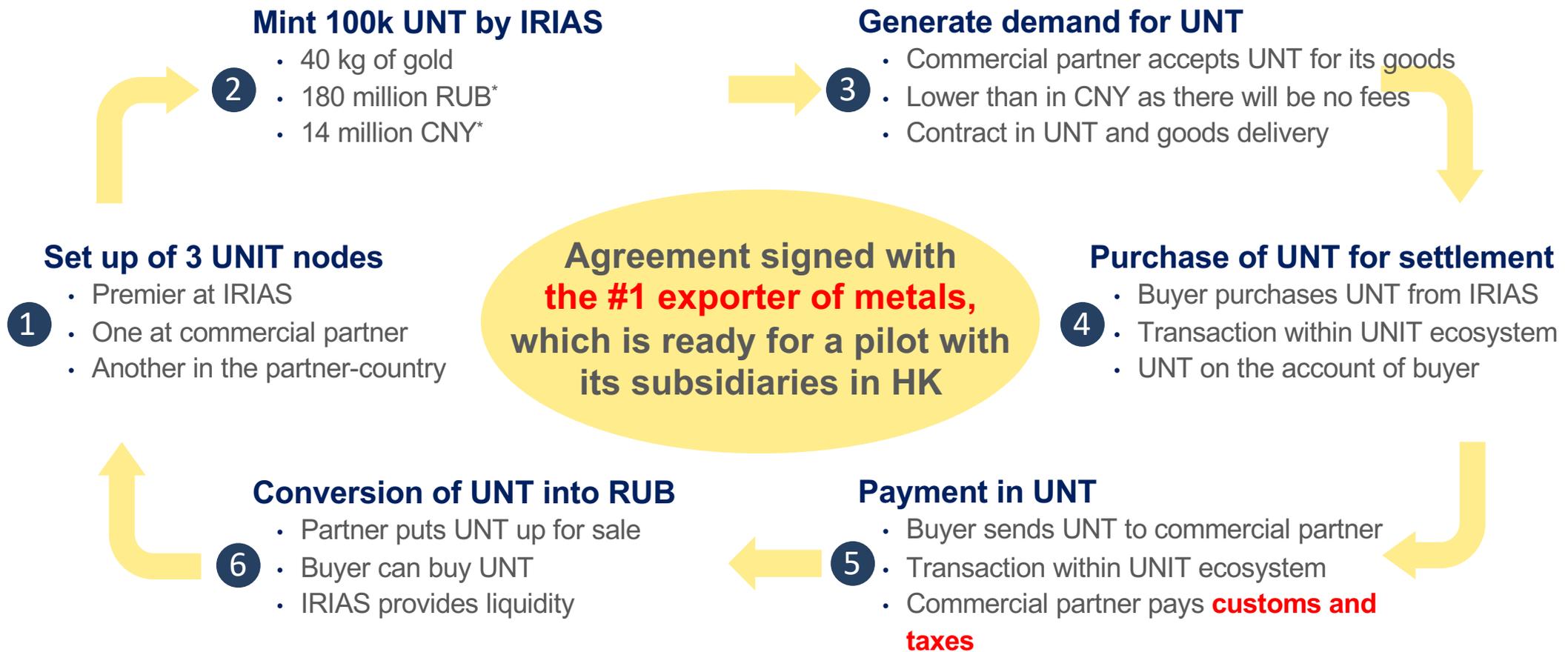
Principle setup for UNIT launch and pilot



- 1) Principle agreement between IRIAS and commercial partner for trade flows
- 2) Engagement of financial partner:
 - access to regulatory sandbox
 - access to fiat RUB infrastructure
 - RUB liquidity and cross-border flows
- 3) Legal / organizational setup Russia/EAEU:
 - preliminary approval from CBR
 - setup of three hubs (only the partner's one with gold storage)
 - customization of private blockchain
- 4) Legal / organizational setup Switzerland:
 - principle agreement with Cardano
 - appointment of representative agent
 - marketing on public blockchain
 - launch of a proper hub with gold storage at LFG and accounts in Swiss Banks



Step-by-step algorithm of the UNIT pilot



* Values may deviate depending on market rates



DAO UNIT governance evolution

- DAO must be built on the underlying core principles of UNIT: business efficacy and efficiency, fairness and inclusivity as well as complementarity and scalability
- Key feature of DAO UNIT is its adaptivity to constantly changing environment to serve practical needs and evolve over time incorporating global best practices
- Governance of the DAO UNIT begins with publication of the UNIT rule-book by IRIAS, which will act as custodian of UNIT during initial setup and rollout
- IRIAS may appoint and authorized an independent agent capable to act in offline space as a representative of DAO UNIT for regulators, banks and partners
- UNIT security tokens may be issued on public blockchain to enable decision-making within the UNIT DAO to be subsequently converted into UNIT tokens
- Each authorized UNIT node will receive such security tokens proportionally to number of UNT minted and vote on DAO UNIT matters brought up by IRIAS
- Upon UNIT maturity all security tokens will be replaced by off-chain and on-chain UNIT rule-book algorithms and communicated via public channel “Voice of UNIT”

IRIAS

Concepts and principles

UNIT rule-book

Rules and procedures

DAO UNIT

Organizational form

DAO UNIT Agent

Offline representation

Security tokens

Voting power tool

Voice of UNIT

Public communications



UNIT roadmap and core KPIs

Pilot

MVP and testing:

- first 3 nodes for minting and validation
- signing of legal agreements for trade flows and access to fiat infrastructure
- regulatory sandbox
- processing of real cross-border flows of goods and payments

Outcome: MVP validation through commercial partners and regulator

GMV: over 1bn RUB

Launch in Russia

Product development:

- at least 5 nodes and 10 business clients
- integration with open digital exchanges
- proprietary UNIT trading venue
- regulatory approval and direct accounts
- rep offices in 2 BRICS countries

Outcome: product acceptance and further development

GMV: over 15bn RUB cash flow positive

Launch in BRICS+

Platform development:

- offices and nodes in >10 BRICS+ countries
- NDB endorsement
- open UNIT accounts in local central banks
- launch of mercantile an financial exchange
- development of credit products in UNIT
- entry into B2B2C

Outcome: launch of new trade products and entry into capital markets

GMV: over 100bn RUB
ROI > 25%, dividends

Global launch

Breadth and depth:

- over 100 nodes and offices globally
- UN endorsement and promotion
- launch of UNIT CAPITAL with risk management and derivative product suite
- UNIT denominated direct investment funds

Outcome: dominance in BRICS+ trade and entry into FDI landscape

GMV: over 1tr RUB
IPO considerations



UNIT is a viable evolving ecosystem

1 Accounting

- Accounting unit for mutual settlements within the UNIT ecosystem
- Payment made in local or neutral currencies like in eurozone in 1999
- Renouncement of USD/EUR in mutual relations with BRICS+

2 Payments

- Launch of a payment platform based on the existing accounting framework
- Lower risks and cheaper cost of working capital
- Possibility of capital accumulation within the UNIT ecosystem

3 Trade

- Price discovery and quotation in UNITs
- Launch of neutral trading platforms and exchanges for goods and resources
- Synchronization of commodity and financial flows

4 Investments

- Dollar monopoly on investable capital hampers development of BRICS+ countries
- Launch of neutral trading platforms and exchanges for financial products
- Synchronization of financial and investment flows



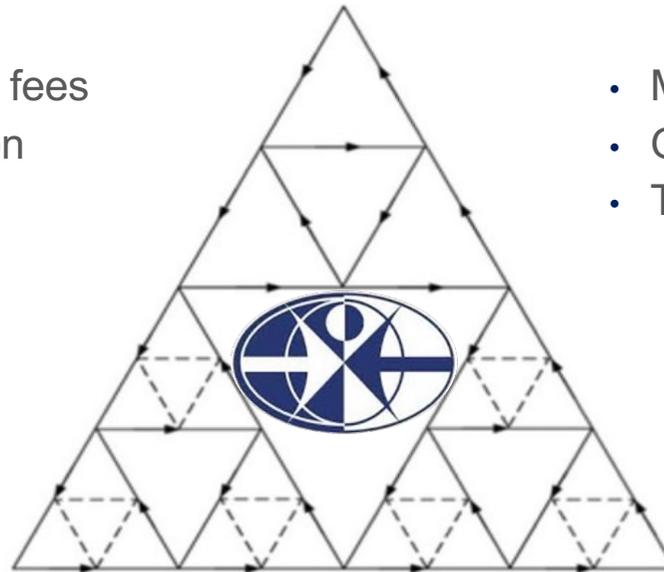
Benefits of UNIT

₹ Exporters

- Minimization of transaction fees
- Working capital optimization
- Market share retention

₹ Government

- M2 sterilization to control inflation
- Growth oriented monetary policies
- Tax base liquidity



₹ Importers

- Alternative payment option
- Access to cheaper resources
- Ability to mint liquid payment units

₹ Investors

- Sustainable fair trade development
- Pricing transparency for commodities
- New market for investable capital



UNIT potential for the Global South



- Western sanctions directly harm economies of BRICS+ countries
- intrinsic inefficiency of the old Bretton Woods system creates risks for social and economic development
- introduction of UNIT to mitigate economic imbalances through free trade and mutual investment
- business efficacy, technological efficiency and legitimacy
- access to growing BRICS markets and investments
- fair trade and transparent pricing of resources for economic development
- leverage for negotiations and cooperation with the IMF
- UNIT can replace post-colonial financial system in Africa
- neutral reserve currency is needed for 14 African countries
- present impossibility of a sovereign monetary policy for economic growth
- restructuring of IMF debts and end of dependency on USD

UNIT as unit of account

UNIT as medium of exchange

UNIT as reserve currency

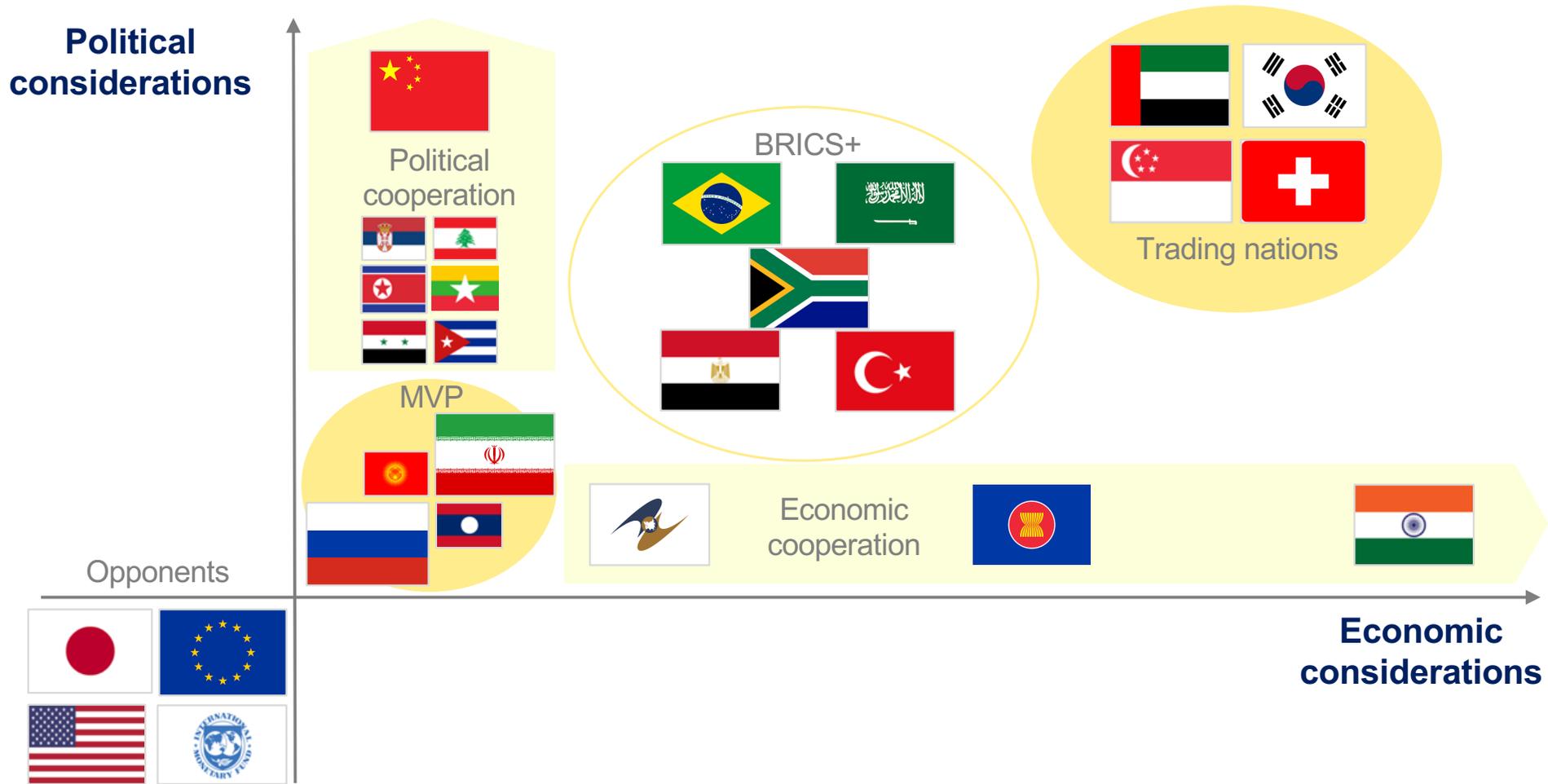


Regulatory approach to UNIT

	Payments in UNIT		UNIT nodes		
	cross-border	domestic	private	sovereign	
1 Wait and observe / ignore	risk	✗	✗	✗	<ul style="list-style-type: none"> minimal volumes as too risky for business uncertain regulatory stance
2 Outsource to others	✓	✗	✗	✗	<ul style="list-style-type: none"> active growing demand from business regulatory practices from other countries
3 Recognize UNIT as digital assets	✓	✗	✓	✗	<ul style="list-style-type: none"> sustainable demand from business formal legitimization of UNIT
4 Recognize UNIT as currency	✓	✗	✓	✗	<ul style="list-style-type: none"> massive demand from business eligibility for bank accounts in UNIT minting of UNIT by business
5 Emit UNIT as currency	✓	✗	✓	✓	<ul style="list-style-type: none"> demand from governmental agencies sovereign emission of UNIT
6 Declare UNIT a legal tender	✓	✓	✓	✓	<ul style="list-style-type: none"> full recognition of UNIT ecosystem



Road map for global UNIT development





UNIT - foundation for global BWII infrastructure

Global payment and settlement infrastructure			
	Old model (Bretton Woods II)	New Model (BRICS Bridge)	
	IMF (ΦPC) 	DAO 	
Global currency	U.S. Dollar	UNT	Developed
Development Center	IMF, World Bank	BRICS+ Council, IRIAS	Replica of IMF
Monetary Coordination	BIS / Basel, Central Banks	New Development Bank, CBs	Ready
Technology Hubs	SWIFT, mBridge	UNIT Ecosystem	Being developed
Trading platforms	NYSE, NASDAQ, LME, CBOT, etc.	EURASEX, MICEX, SSE, BSE, etc.	Ready, expecting regulator
Depository	DTC, Clearstream, Euroclear, SIX	BRICS+ IDSS	Being developed
Systemic Funds	Blackrock, Fidelity, Vanguard etc.	FNB, RDIF, PIF, ADIA, KIA, etc.	Ready, expecting regulator
Systemic Banks	JPM, BoA, HSBC, Deutsche, etc.	ICBC, Sberbank, BOC, ABC, etc.	Ready, expecting regulator
Rating Agencies	S&P, Moody's, Fitch	BRICS Alliance of CRA	Being developed
Auditors	PWC, E&Y, KPMG, Deloitte	PWC, E&Y, KPMG, Deloitte	Plus small local players
Insurers	Lloyd's, Swiss-Re, AIG, etc.	BRICS Re	Being developed
Businesses	Tesla, Apple, MSFT, Meta, etc.	Gazprom, Aramco, CRCC, etc.	Ready, expecting regulator

Private
 National
 International