



Trade Inclusive

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Meet the team



Sathya Krishnasamy

Architect, Technology Management Executive, Domain Expert in Supply chain, International trade logistics, and Payment Integrity and innovation in Health supply chains



Badri Narayanan Ph D

Renowned Economist, Consultant to many entities including WTO, World Bank, IMF, Governments (ASIA pacific, UK), and corporates and NGOs worldwide including McKinsey .

SATHYA KRISHNASAMY / Dr BADRI NARAYANAN

- Focus on MicroSmallandMediumEnterprises
- Proprietorship business – 10 K to 1 M USD Loans
 - At the Low end of Goods and Service Tax(India) or NOT yet in GST
 - Exports - Nuetraceuticals, Textiles, Food. Imports – Electronics, Chemicals, Raw Material
 - Needs access to formal finance
- Specific painpoints
 - **Working capital gaps and TradeFinance Credits.**
 - Input Tax Credit Receivables, and Export Duty subsidies eventually arrive but puts lot of short-term cash flow deficit
 - Most of these businesses are operations-oriented and current options for them are very high in interest rates (predatory)

Problem Statement

Inefficient Financial Access for Sellers (Most are local heritage preserving entrepreneur Workers – GI recognized)

A majority of global SMEs in developing economies (Exporters) **do NOT have access** to formal finance. Alternate options are of high interest rates. This is a high barrier for **MSME Trade finance Inclusivity**. Per year cross-border trade finance gaps are in Trillions. Please refer to studies by team member – Dr BadriNarayanan.

Financiers / Buyers face Validation Risk

Decentralized solutions are emerging but risks are high and **validations are still very difficult**

Buyers / Financiers do not know Sellers well enough

Need for Trust Minimized and access controlled yet transparent and traceable solutions

For reducing Buyer and Financier risk,

For reducing the multi-party discrepancies (starting with the financing need functions)

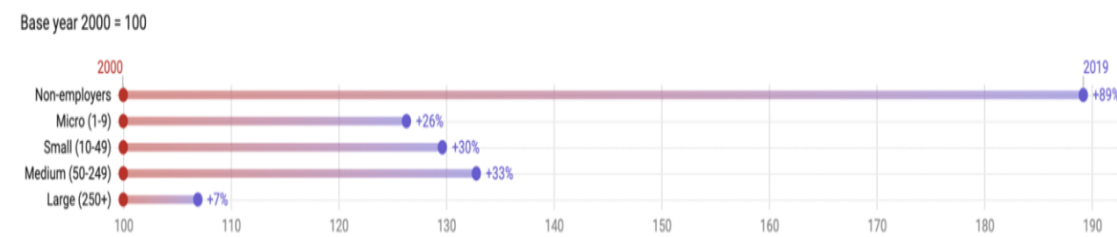
and **Seller(MSMe) showcasing best practices, compliance, and building creditworthiness** to broaden

Financial options – Ideal end state is multi-financiers

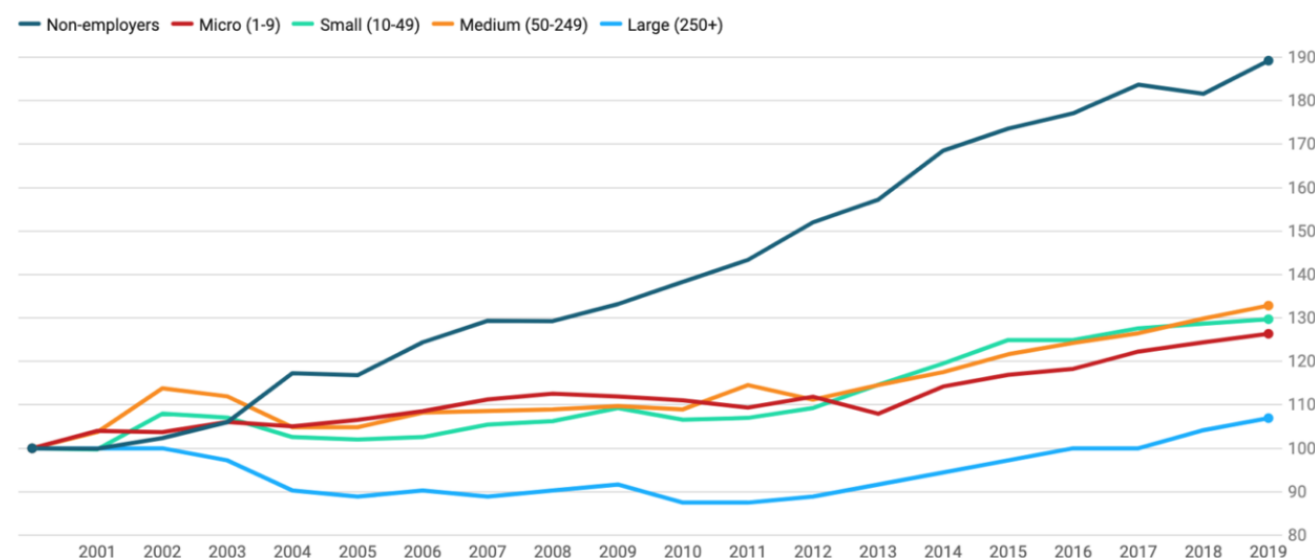
How important are MSMEs • MSMEs are important globally ([Davies, Narayanan and Balasubramanian 2021](#)):

- Over 95% of all companies are UK & US are MSMEs
- 90% of all businesses globally are MSMEs, they employ over 50% of all workers
- 88% of EU companies exporting to USA are MSMEs
- They are even more important in developing countries like India, particularly in the context of exports/imports ([Chakravarthy, Bharathi, Khire, and Narayanan, 2023](#)): 30% of GDP (40% of emerging economies income globally).
- Roughly the total addressable market is about 16 trillion USD
- that's the income generated SMEs globally!

% Growth in number of business types from 2000 to 2019

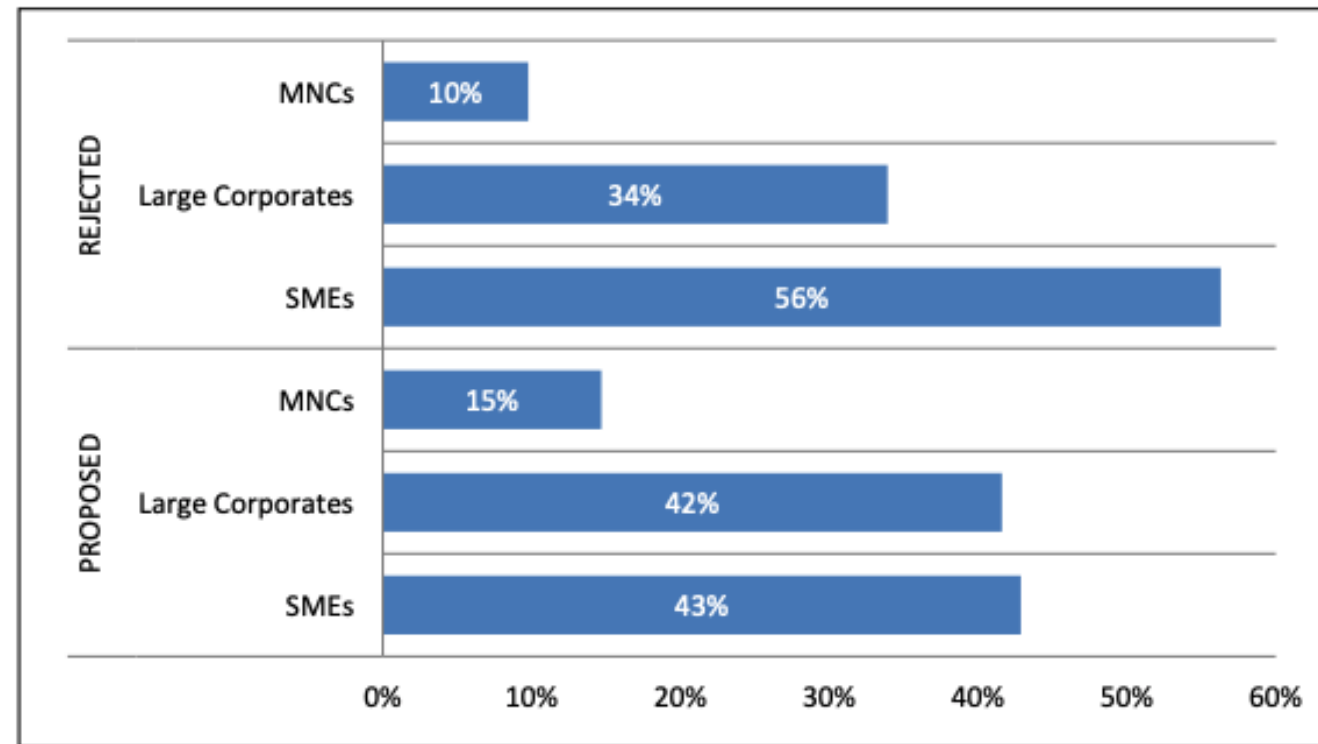


Growth in UK businesses in the private sector by number of employees (2000-2019)



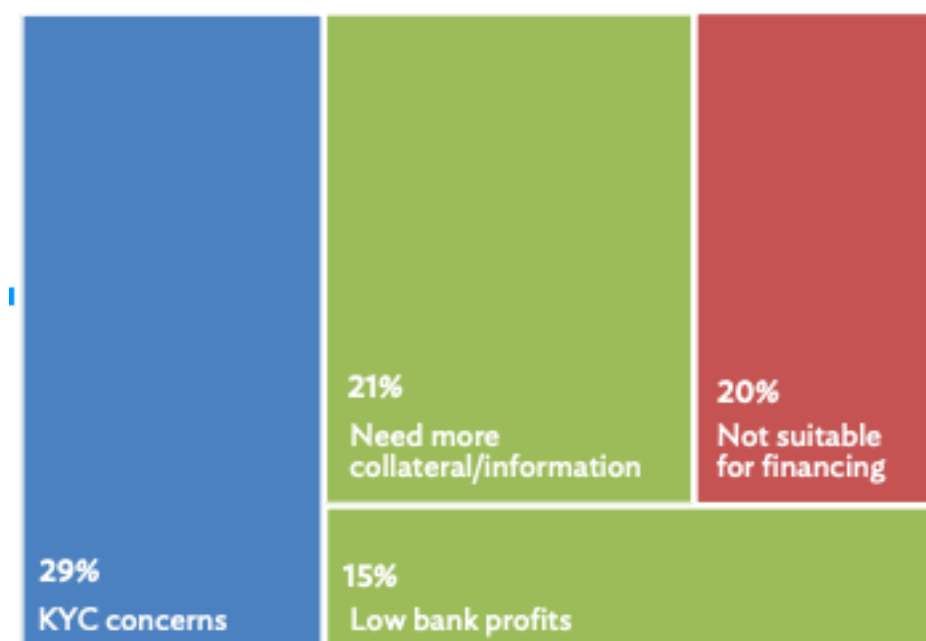
Pain-points in export cash cycle for MSMEs

Indication of Opportunity and How Big it is.



MNCs = multinational corporations, SMEs = small and medium-sized enterprises.
Source: ADB Trade Finance Gaps, Growth and Jobs Survey (2016).

- EXIM Bank in India, while working on Factoring solutions, found that the export cash cycle was 60-120 days post shipment in India. This is purely for transaction, after all the work has been done.
- MSME Finance gap ranges from 10% of GDP in South Africa to 27% of GDP in Brazil, as informal SMEs for 34-58% of formal SMEs in these countries (Narayanasamy, Narayanan and Shivakumar, 2023)
- Our research (Dicaprio, Narayanan, McDaniel and Norberg, 2020) finds that using blockchain to solve this trade finance issue could save at least 2-3 trillion USD globally, most gains coming from exports promoted in the developing countries.



Source: ADB. 2017 Trade Finance Gaps, Growth, and Jobs Survey.

Social Cause



- Most MSMEs are in industries like agriculture, handicrafts, food processing, weaving etc., which represent heritage activities, livelihoods for the poor, sustainability with implications for emissions and biodiversity
- They need systems to collect reliable data and show proof that they are ecofriendly and sustainable.
- Scientifically and analytically, this is all done long ago– [Narayanan \(2003\)](#) suggests 20-50% reduction in Total Dissolved Solids (TDS) if we move to traditional natural dyes developed by MSMEs, instead of chemical synthetic dyes. It's time to get into action on the ground

Terminology and current state

Bill of Lading :

The shipping **invoice**, also called a **bill of lading**, is a legal document that is required any time a company sends a freight shipment of goods.

A **bill of lading** is a document of title, a receipt for shipped goods, and a contract between a carrier and shipper. This document must accompany the shipped goods and must be signed by an authorized representative from the carrier, shipper, and receiver. Current paper and electronic processes are error-prone, costly, and just does not work for inclusivity, as it involves time-sensitive decision making for MSMEs and no tools to support them.

Current State :

A considerable proportion of international trade is **financed through banks**

Buyer initiated credits through the buyers bank.

Sellers applying for export credit loans

In order to draw this credit

the seller is required to ship the contracted goods and then submit (most times THROUGH SNAIL MAIL COURIER) appropriate documents to the bank

and eventually importers to take the consignment out from the port of delivery. The loaning companies need insurance on the loan and the insurers underwrite.

The current system only works for Big Buyers.

Hence MOST of the lending for MSMEs in developing nations are INFORMAL with no access to formal credit – and the options are very expensive for the borrowers – **Inclusivity for MSME Supply Chain Trade Finance is a big focus item per WEF and WTO.**

The current State is very hard for both the MSMEs to show case their compliance, best practices and use them towards transparency the lenders and defi protocols need for increased fidelity in their trade finance portfolio management

Focus Areas and Roadmap: EXIM Tokenization, Compliance Disputes Resolution

Supply Chain/ International Trade Finance :

- Web 3 Digitization of SCF / Trade documents with compliance to evolving bills and standards (Electronic Trade Bill, Model Law for Electronic Traceable Records, CBAM)
- Seller Identity through evolving Identity schemes and Decentralized IDs.
- Compliance – KYC/AML Needs, Best Practices Certs, ESG Green Certs.
- Enterprise connectivity to SupplyChain/Trade, ESG

DCSA standards.

ESG Favorable settlement layer

End2End Hyper-Efficiencies

Cash Flow Cycle shortening

Proof of Best Regenerative Practices

- TradeInclusive solution

Active engagement with multiple trade orgs (WTO, Global services coalitions, Multiple governments – India, UK, Saudi Arabia etc., and academic / top 3 consulting.

Technical Proof points and prototypes built out based on XRP Ledger

Working with MSMes on pre-launch onboarding for effective MSMe trade finance options.

Some early proof points also won ETHGlobal - TrafiGuard. Since then the solution is gravitating towards DLT implementations that are getting more traction in cross-border payments, KYC/AML, regulated Enterprise Defi and Enterprise grade solutions in Trade, supply chain and payments.

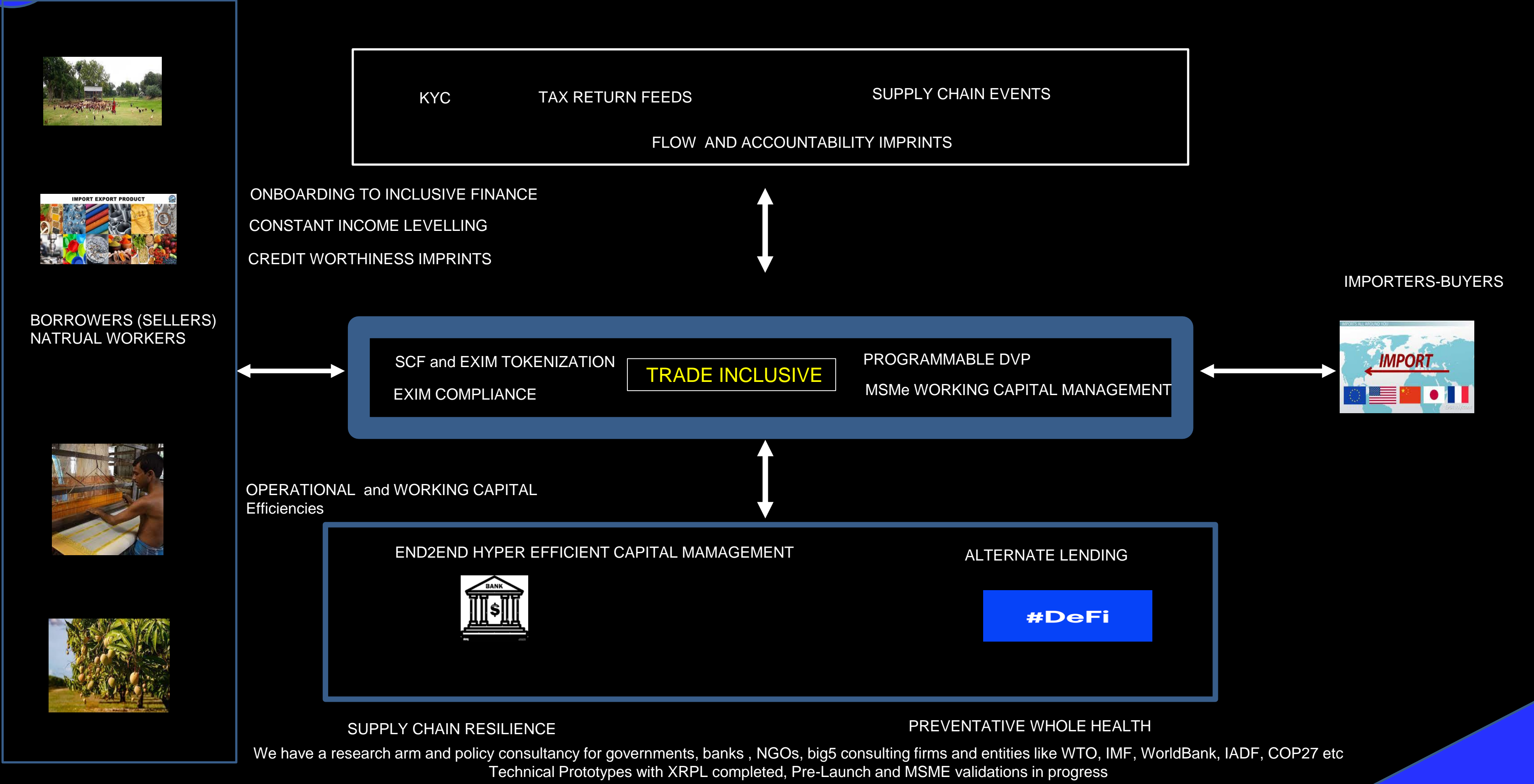


SATHYA KRISHNASAMY

Borrowers/Sellers are MSMEs still not having adequate access to formal finance.(Natural farming, poultry and textiles – most are tagged Geographic Indicators)

Examples of our inclusivity efforts : seed investments in happy hens(humane certified), mango point(no artificial ripening), textiles(natural instead of synthetic dyes, rural basket(healthfoods)

Now they need web3 to prove provenance of best practices and accountability, documenting evidence of results to whole health and supply chain resilience, for access to finance which is what our focus is.



Trade Inclusive Solution Architecture

- DLT based MSME focused SupplyChain / EXIM Financial Inclusivity

Compliance to eBills –Ownership and Uniqueness

- Interpretation and implementation of eBL,ML TDR
- Compliance – Regualtory KYC, EXIM compliance
- Transaction Signatures and Multi-sigs (where needed)
- Business NFTs
 - Mint Wallets, Policies, Original Numbers, Access control
 - Transfer of Ownership, and underlying integrity of SCF documents.
 - Proof of uniqueness (electronic and electronic-paper combination)
 - Proof of Best practices (GI , Export carbon offsets compliance)

- SupplyChain/EXIM Financial Inclusivity Features

MSME Access Flexibility

- Negotiables – Dynamic Business NFT marketplace for document of titles.
- Non-Negotiables – Dynamic Discounting, Performance based Payments.
- Privacy protected, Yet traceable flows for counterparties for SCF/EXIM finance purposes.
- Broader financial access including multi-financier access

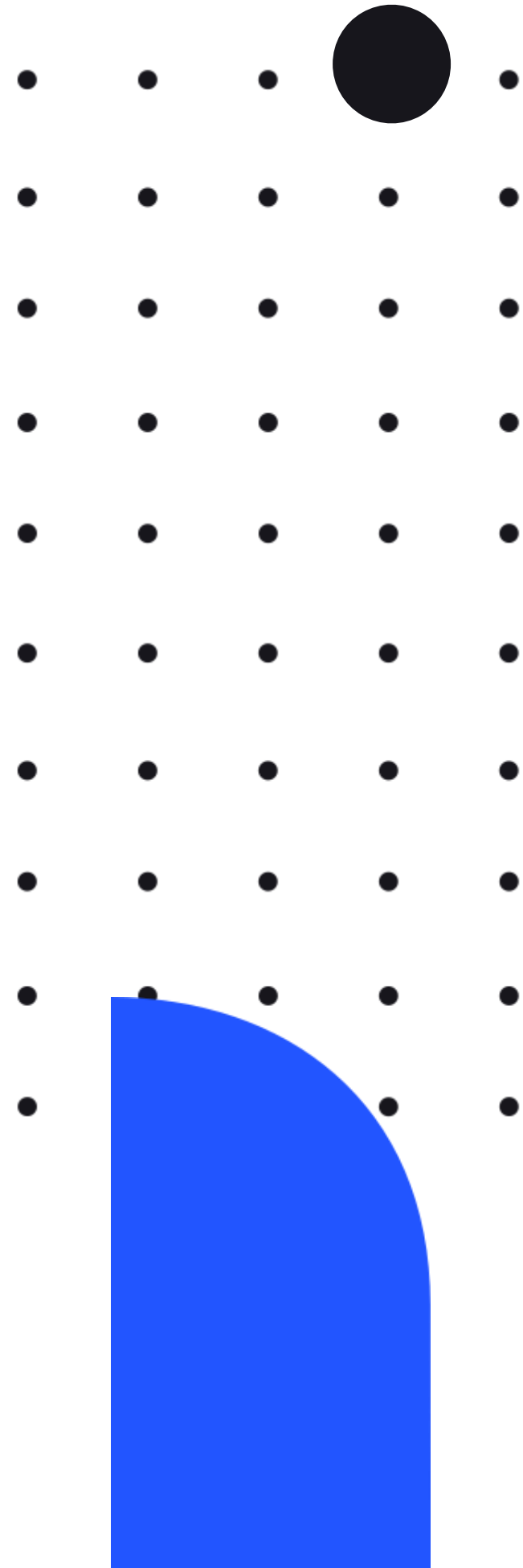
Financiers/ Insurers

- - Traceable de-risking
 - For financing decisions – more broader decisions than big-buyer credit based.



What are we looking for?

- Ecosystem Partnerships
- Incubation – Legal, Entity setups
- Working relationships
- Grants / Access to capital for further enhancements



References

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Current Market and Opportunity in just 1 CORRIDOR

- Unmet demand for trade finance in Africa is US\$ 120 billion (one-third of the continent's trade finance market) and US\$ 700 billion in developing Asia.
- Total of **63.4 Million** MSMEs in India. Contributes **45%** of overall exports. **90-120 Days** Receivables Cycle
- Almost 90% of small business in india still have no links with formal financial institutions. IFC estimates debt demand gap of **Rs 36.7 lakh crores**.
- Government efforts to disburse credit still not effective. Banks hesitant for small business lending.
- COVID recovery needs dynamic adaptation. (Needs standardized interfaces and weights to balance between traditional metrics and to move to flow-based)

Any Questions

