



S M A R T T R A D E
N E T W O R K S

WHITE PAPER

Virtuosity: a growth model that rewards contributions and the pursuit of integrity in global supply chains.

Smart Trade Networks is a blockchain-enabled ecosystem and infrastructure designed to enable projects to prosper and for the community as a whole to flourish as we re-engineer supply chains globally.

August 2021

Prepared and issued by the Data Integrity in Supply Chains Association Inc. (DISCA)

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Preface	5
How You can Contribute and Benefit	7
Links to Purchase STN	7
We have a problem, Houston	8
Supply Chains in Crisis	8
Better Ways - STN Ecosystem	9
STN Marketplace: E-Commerce 3.0	10
Global Community	11
Continual Improvement	12
You can get involved	13
STN Core Development and Commercialisation Roadmap 2021/22	14
Core Themes	14
Commercialisation	15
Regional Hubs	17
Membership Participation and Privileges: Next Generation Tokenised Benefits	19
If it's good enough for Lionel Messi ...	19
STN: Membership Rewards Token	19
Benefits of Membership	19
Value Drivers	20
STN Pairs	22
STNPay (STNp)	22
Value Flows	23
Governance via Multisigs	25
Token Functions: A Summary Taxonomy	26
Risk Mitigated Growth: Global Diversified Disruptive Portfolio	28
Guiding Framework	28
Sector and Geographic Diversification	30
Cohort 1 Overview	30
Investment Opportunities	31
Joining the Ecosystem	31
Carbon Mitigation	31
Food Security	32
Wine and Spirits	33
Advanced Materials	34
Decentralised Finance	34
Property Fractionalisation	35
Media, Entertainment & Arts	36



Data & Communications Technologies	36
Education and Research	37
Deal Flow Pipeline	38
STN Academy	39
The Beating Heart of R&D	39
Global Academy	39
Education Certificates	40
IP as a Public Good	40
Community Education	40
STN Moonshot Reserve	40
Education Bursaries	41
Governance	41
Community and Ecosystem Development - about the Data Integrity in Supply Chains Association Inc.	42
About DISCA	42
Mission	42
Emergence & Provenance	43
Guiding Principles	43
Founding Members	44
Governance	45



Preface

Global supply chains are in crisis. They lack integrity and transparency. Credence claims and their data underpinning them are shrouded in corporate secrecy. Information asymmetry undermines markets and destroys trustworthiness. This in turn drives up uncertainty, making supply chain finance risky and expensive.

Communities are adversely impacted by fraudulent claims, fake goods and dangerous goods. Yet, we all depend on supply chains doing the right thing.

As concerned global citizens, we believe that we can do better; that supply chains can do better. And that, together, we can create better systems that deliver integrity, transparency and trustworthiness.

When human societies were small, behaviours were modified by visibility and accountability through reputations. Dunbar's Number in a sense constrained destructive conduct. As communities grew in size and distances between them expanded, the transparency that underpinned reputation systems disappeared. People could seek to take advantage of the fact that information was no longer evenly distributed.

Modern blockchain technologies enable us to re-imagine systems that effectively 'scale Dunbar'. We can achieve transparency and accountability at large scale, across vast

distances. We can do this because decentralised information systems offer the possibility of integrity from the ground up, where actors are rewarded for their pursuit of excellence and their contributions to system integrity.

That's what we have been working towards at Smart Trade Networks together with our community collaborators through the Data Integrity in Supply Chains Association Inc (DISCA) and R&D partners at Queensland University of Technology and the Future Food Systems Cooperative Research Centre.

We now have a **solid first generation technological foundation in place**. This foundation supports the migration of enterprises to what we call E-Commerce 3.0, where integrity and transparency are rewarded.

We have also designed a **community-driven rewards ecosystem**, which values contributions made towards the betterment of our global and local supply chains. This is led by DISCA.

This rewards system tracks contributions and effort. It enables people and organisations to scale their contributions, and to have all types of efforts and resources recognised. The rewards system - the STN token, an ERC20 token tracked transparently on a blockchain registry - recognises in-kind contributions and



resources as well as contributions of fiat finance capital.

You can participate in and contribute to the work of the network by:

1. Buying STN tokens to support the work of DISCA;
2. Investing in enterprises and receiving STN tokens as acknowledgement of your contribution;
3. Joining the network as a participating enterprise, and earn STN tokens;
4. Participating in the Learn and Earn program where you can earn STN tokens by successfully completing education and training modules.

We describe this as Proof of Effort, Proof of Contribution and ultimately Proof of Community.

STN membership rewards is a virtuous ecosystem, where value is underpinned by network volume and velocity.

This White Paper explains our work to date, the foundations that exist, our broad roadmap for the next year and the exciting ecosystem of projects that are already ready to make the transition to next generation supply chains.

There is no time like the present to make a difference. To make an impact.

STN is dedicated to empowering initiatives that are good for people, good for communities and good for the planet.

You're invited to join us in this mission.



How You can Contribute and Benefit

You can join DISCA and access membership benefits by:

1. Purchasing STN tokens directly with fiat currency or cryptocurrency (links available at the Smart Trade Networks [website](#));
2. Invest in an ecosystem enterprise via an equity investment (subject to the applicable regulatory requirements of each jurisdiction). Investors receive enterprise equity as well as STN tokens as recognition of contribution. To find out more about the projects, go to the Smart Trade Networks [website](#) or email admin@smartradenetworks.com;
3. Join the STN as a participating enterprise / business partner. Participating enterprises, once onboarded, receive STN tokens as recognition of contribution to the network and members of DISCA. To find out more about how your business can benefit email admin@smartradenetworks.com to register your interest; and
4. Earn STN by participating in various programs aimed at empowering individuals (Learn and Earn) and rewarding activation of social capital (Grow and Earn / Refer and Earn). The Learn and Earn program can be booked at this [link](#).

Ways to Purchase STN

STN tokens can be purchased with the following:

- AUD;
- USDT;
- BTC;
- ETH;
- \$BEEF; and
- \$STN5 (for a limited period).

Links to pathways to purchase STN tokens will be available via the Smart Trade Networks [website](#). All holders of STN tokens are members of DISCA.



Houston, we have a problem

Supply Chains in Crisis

Global supply chains are in turmoil.

The recent spate of cyber security attacks that have brought supply systems to a standstill are a sign of things to come. Some estimate that supply chain cyber security attacks are set to [quadruple](#). Centralised information systems are showing their vulnerabilities.

Supply chain finance has enriched some, but impoverished many others up and down a supply chain. Seemingly unassailable supply chain giants like [Greensill Capital](#) have collapsed, leaving a trail of economic and social turmoil and destruction.

Creative leveraging and securitisation of future receivables on the back of opaque chains of securities and claims added up to a house of cards.

[Trade finance documentation fraud](#) continues to plague the community. Fake documents are peddled to dupe unsuspecting buyers. Invoices are leveraged multiple times to different credit providers, each none the wiser that others have also lent against the invoice.

[Letter of credit fraud](#) is worse today than it's ever been.

Consumer trust in supply chain systems is at an all time low. Amazon - the world's largest e-commerce platform - spent [US\\$700m in 2020](#) to tackle product counterfeiting on its platform. That's after [spending \\$400m in 2018 before](#). Worse, or to add salt to the wound, Amazon has been one of the world's [most egregious avoiders of tax](#). In effect, it is a massive wealth transfer system that profits from ordinary households by enabling counterfeiters to profit.

The [UK consumer watchdog is taking action against eBay and Google](#) for fraudulent product reviews.



Globally, [food fraud is now a US\\$50 billion a year problem](#). [Carbon credit fraud](#), counterfeiting and resale is undermining confidence in this emerging marketplace.

Consumers are demanding more transparency.

Where buyers have doubts about the integrity and authenticity of claims made about products, we invariably see discounting of value.

Conversely, where provenance value can be substantiated, there is sustainable profit.

All these problems arise because of a lack of transparency and an absence of information symmetry. They arise because behind the veil of corporate opacity, a person's or company's reputation no longer carries the day.

There are better ways.

Better Ways - STN Ecosystem

Through years of dedicated, academically validated research and development, and sustained global industry and community engagement, Smart Trade Networks has designed a blockchain-enabled ecosystem that tackles supply chain dysfunction at its root.

Going beyond the limits of first generation blockchain supply chain projects, which focus solely on technical consensus, the STN ecosystem delivers tools that:

1. Deliver transparency for both products and agents, to align incentives around reputations and the pursuit of integrity;
2. Tracks assets through their life via a robust and mature [REA supply chain accounting schema](#), thus enabling scalability, interoperability and machine learning in the future;
3. Tracks asset ownership through the minting of unique non-fungible asset identification certificates (erc721 NFTs) so that buyers can be sure the seller is the lawful Asset owner;
4. Enables communities of supply chain actors to build social consensus and common knowledge through smart contract organic Multisig tools, so that no single actor can



willfully modify a supply chain's information base without the oversight and agreement of others;

5. Provide the tools to enable anyone, anywhere, anytime to query the transactions history on the blockchain and independently verify the transaction's validity;
6. Supercharges transactions via a powerful organic escrow deal room, in which atomic swaps are supported without the intervention of an intermediary; and
7. Supports asset-backed financial solutions with digital assets linked at a smart contract level to instruments of payment.

Foundational technical infrastructure is now in place and in production. A Proof of Authority blockchain network delivers data security and resilience. It also ensures network costs are stabilised to deliver certainty for all concerned. There's a suite of smart contract functional modules that sit on top of this infrastructure, which power project-specific applications.

All this means rapid prototyping, customisation and scaling. We can do this cost-effectively for project partners, which reduces risks and gets people into revenue sooner rather than later.

STN Marketplace: E-Commerce 3.0

These next generation blockchain enabled capabilities are now brought together in the STN Credentialed Marketplace.... A world first that combines blockchain-enabled asset tracking and credentialing with an atomic swap escrow deal room to support transactions of anysize, between anyone, anywhere.

The Credentialed Marketplace only lists assets tracked on the STN blockchain.

Assets are tracked through a series of events. Registering events and asset data is filtered through the Multisig social consensus mechanisms. And anyone can track back through the life of an asset, and verify the transactions hash independently via the STN blockchain explorer.

We call this E-Commerce 3.0.



With the advent of the internet, many merchants could spin out an e-commerce store and sell directly to customers. This is E-Commerce 1.0. Over the last 15 years or so, fragmented e-commerce stores have been superseded by massive global electronic department stores - platforms like EBay, Amazon, Alibabi and such like. This is E-Commerce 2.0. The dominant business model of E-Commerce 2.0 is enabling uncredentialed third party merchants to spin up stores alongside primary brand owners. [Over 56% of Amazon's business is, for example, via these third party stores, having risen steadily from 26% in 2007.](#)

E-Commerce 3.0 is different. It's different because transactions are transparently auditable. It's different because product provenance event logs are auditable. Don't rely on platforms to simply state the claims; anyone, anywhere, anytime should be able to query the supply chain database. It's also different because supply actors are identified and credentialed. The STN ecosystem is designed to reward actors for their growing reputations; and these reputations are made meaningful because actors and their behaviours aren't hidden from view.

Global Community

The Version 1 Credentialed Marketplace is now reaching across supply chains on 5 continents.

We are taking animal protein supply chains in new directions through our multi award winning partners at BeefLedger, whose work now covers Australia, South America, South Africa, Hong Kong SAR and China.

BeefLedger's South American partners are expanding the footprint into North America.

Our food systems partnerships are driving opportunities in lamb, seafood and boutique horticulture.

Wine and spirits authentication is also enabled on the STN blockchain with the WineLedger initiative being driven by our partners in South Africa. An Australian WineLedger project is also activating.



Supply chains are intimately connected to how the world produces and consumes energy and impacts on the natural environment. As countries align around a common purpose of carbon reductions towards a zero carbon future, the STN ecosystem is empowering projects in:

1. Carbon abatement registration and transactions;
2. Green hydrogen, green metals and ammonia supply systems; and
3. Big data focused on decentralised ecosystem data collection and analytics with clean air, water and healthy soils being the main areas of focus....

We have partner projects in electric vehicles. And a growing portfolio of fractionalised real estate. We have project partners working with first nations communities to reimagine value flow, driven by cultural economies.

There is a diverse global portfolio of projects, with over 30 projects emerging as part of the first cohort. The global portfolio is introduced below.

Continual Improvement

The Version 1 Credentialed Marketplace is enabling the development of [Smart Trade Hubs](#), as part of the Australian Government-backed Future Food Systems Cooperative Research Centre and our ongoing R&D collaboration with Queensland University of Technology.

What anchors our work is a belief in the need to empower communities across the world to think globally and act locally; to align around a common ethos, anchored by a recognition that information integrity is necessary to tackle the imperatives of supply chain health, planetary health and human health.

Our technologies are continually pushing the limits of the possible.

Our solutions are always open to improvement.

Our infrastructure is non-discriminatory, open to those willing to collaborate and share knowledge.



The STN Credentialed Marketplace Version 1.0 is open for use. And feedback. And improvement. And expansion.

You can get involved

We invite merchants, brand owners, entrepreneurs, industry bodies, regulators and innovators to reach out and find out how our ecosystem can create lasting win-win-win outcomes.

We invite members of the community that share a passion for supply chain integrity and security to reach out and find out how you can help grow the ecosystem. To benefit communities, people and the planet.

We invite technology developers to make contact and explore opportunities to put your skills and passions to real life applications. We provide avenues for education and certification through our global training partners at Casugol, in Singapore.

We invite researchers to reach out to discuss how our technological ecosystem can be mobilised as a teaching and research resource.

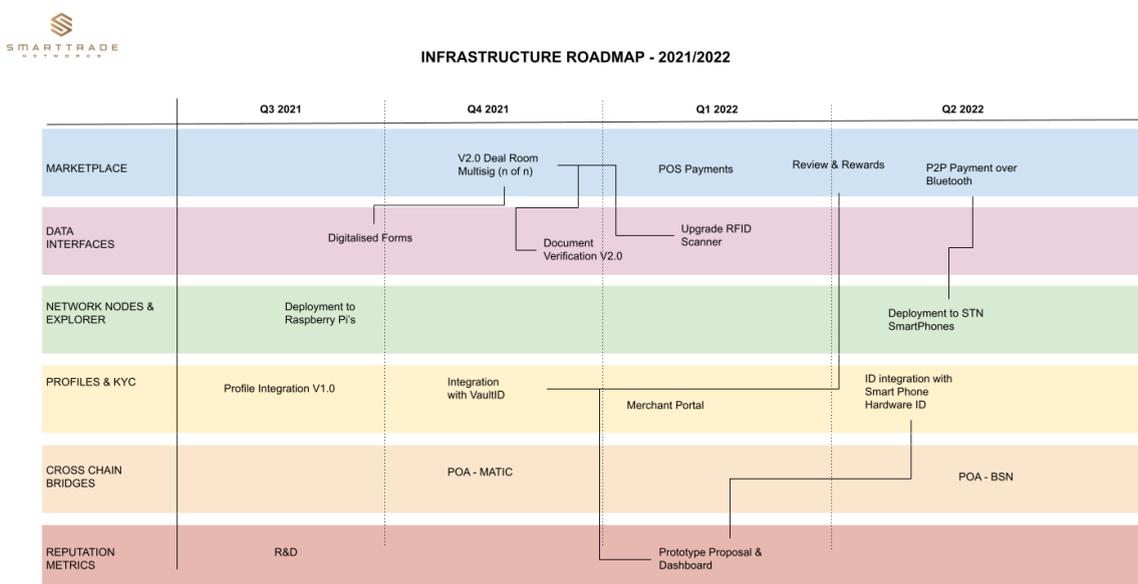
And we invite interested parties seeking high growth, highly scalable, risk mitigated global technology investment opportunities to reach out to find out about our partnering and investment opportunities.

Together, we can make the difference. We can deliver systems that empower communities across the globe to discover the value of integrity and drive transformations that are good for supply chain communities; that are good for the health of people; and that are good for the health of our planet.



STN Core Development and Commercialisation Roadmap 2021/22

The STN infrastructure roadmap for 2021-2022 aligns ecosystem priorities that build on the existing platforms. It also dovetails with the scope of works of the R&D to be undertaken as part of our second phase Smart Trade Hubs project being undertaken in collaboration with the project research partners at Queensland University of Technology and the Australian Commonwealth Government co-funded Future Food Systems Cooperative Research Centre.



Core Themes

The Roadmap revolves around six core themes. They are:

1. Marketplaces. Here, the main deliverables are:
 - a. Additional Deal Room multisig options (organic n of n capabilities, in addition to the existing 2 of 2 configuration);
 - b. Point of Sales payments enabled;
 - c. Review and Rewards Functions;



- d. P2P offline tokens transfer over Bluetooth;
2. Data Interfaces. The focus areas are:
 - a. Upgraded data ingestion Web App supporting Dynamic Forms, with rapid scale capacity for new industries, sectors or regulatory / jurisdiction requirements
 - b. Enhanced document verification integration with Veridoc Global so as to streamline the experience; and
 - c. Upgrade the existing RFID scanner software;
3. Network Nodes and Explorer. The focus will be towards:
 - a. Deployment of auto-configured Archive Nodes to Raspberry Pi's. This will support greater access to core integrity infrastructure and provide strengthened network redundancy in the process; and
 - b. Ongoing R&D with a view to deploying the Archive Nodes to STN Privacy SmartPhones;
4. Profiles and KYC. The focus areas are:
 - a. KYC integration for third party verification of individual identities;
 - b. KYC verification for companies - this work will be progressive;
 - c. Integration of account management with SmartPhone hardware ID;
5. Cross Chain Bridges. We will focus on:
 - a. Bridging the STN Proof of Authority Network to Matic. This builds on the bridge we have deployed linking the Matic Network and Ethereum Mainnet; and
 - b. Bridging the STN POA Network with other networks operating within the Blockchain Services Network (BSN);
6. Reputation Metrics. This is ongoing R&D. The target is a first generation Reputation Scoring dashboard, delivering users with capacity to visualise and query the reputation scores of:
 - a. Individual Agents;
 - b. Networks of Agents (eg., whole supply chains); and
 - c. Products / services.

Commercialisation

Commercialisation will focus on:



1. Expanding global footprint through Regional Hubs. We already have Hubs in:
 - a. Australia and New Zealand;
 - b. North Asia (based out of Hong Kong, covering China and Japan);
 - c. South East Asia (with teams covering Vietnam, Brunei and Singapore);
 - d. South Africa; and
 - e. South America.
2. Working with Regional Hubs to curate new projects and sectors. This program will feed the deal flow pipeline, which forms the basis of the ongoing development of the global portfolio.
3. Improving knowledge and capacity across the ecosystem at an enterprise, community and technical level through:
 - a. Rolling out the Learn & Earn program;
 - b. Integrating the Learn & Earn program with formalised certificate education delivered in partnership with Technology Education and Training specialists, Casugol, headquartered in Singapore;
 - c. Establishing a global network of STN Academies, delivering and creating education and training content;
4. Leveraging STN ecosystem networks to grow market access and trade / investment opportunities for participating projects.



Regional Hubs

Regional Hubs are enterprises or associations that focus on developing and delivering services across five main functional areas. These are illustrated below.



REGIONAL ENTERPRISE HUBS - FUNCTIONS DRIVE OPPORTUNITIES			
Functions	Opportunity	Form	Model
 <p>Project Curation - Birthing Station</p>	<p>Identify and curate 'verticals'.</p>	<ul style="list-style-type: none"> Internal business units; Full owned subsidiaries; Partially owned spin-out companies 	<ul style="list-style-type: none"> Subordinate bodies are charge a fee to access Regional Hub services. Regional Hubs pays STN for access to these services. The regional function retains 85% of gross.
 <p>Project Empowerment</p>	<p>Provide training to projects in areas such as:</p> <ul style="list-style-type: none"> Blockchain technologies; REA Mapping; Data analytics to drive operational performance <p>Future opportunities exist in Content creation and sales across the network.</p>	<ul style="list-style-type: none"> STN can provide first generation content via our partnership with Casugol. As this function expands, spinning it out as a standalone Regional Academy should be considered. 	<p>Education has 4 functions. Revenue splits are:</p> <ul style="list-style-type: none"> Content creation (15%) Content delivery (35%) Marketing (25%) Certification (25%) - Casugol/STN <p>First utilise and deliver existing content, then develop own content, have it accredited and sell that across the network per the model above.</p>
 <p>Tech Development</p>	<p>Develop and operate a Regionally based software development 'shop'. This 'shop' focuses on the following areas:</p> <ul style="list-style-type: none"> Protocol engineering Solidity smart contract development Front end REACT development Scrum Masters Design architects 	<ul style="list-style-type: none"> In-house permanent or network of casual capabilities. Recruitment and training of development resources (via Training Academy) is an operational pre-condition. Events and strategies include: <ul style="list-style-type: none"> DevCamps Hackathons 	<ul style="list-style-type: none"> STN can provide first generation train-the-trainer services to support the building of local capacity. Local DevShop to support local enterprises (curated as above), and also be available to sell services to global enterprises across the network to generate revenues.
 <p>Data Analytics</p>	<p>Develop and operate a Regionally based data analytics service providing:</p> <ul style="list-style-type: none"> Analytics dashboards (developed through the TechDev capacity noted above); and Bespoke big data analytical capabilities as a service 	<ul style="list-style-type: none"> In-house permanent or network of casual capabilities. Recruitment and training of data science resources (via Training Academy) is an operational pre-condition. R&D partnerships with industry bodies or research universities. 	<ul style="list-style-type: none"> STN can provide first generation development support in areas such as graph databases etc. to create dashboards as required. Local capacity formed to deliver independent services locally, and where opportunities exist to deliver them as fee-earning streams to the global network.
 <p>Financial Innovation</p>	<p>Develop and operate a Regionally based supply chain and associated financial services brokerage or provider, utilising:</p> <ul style="list-style-type: none"> Decentralised smart contracts to create peer-to-peer products; Big data analytics to support new product development 	<p>Given regulatory requirements there is a likely need to partner with established service providers in product manufacturing, wholesaling and distribution.</p> <p>DeFi via digitised value flow networks can offer cross-border opportunities, however, which need to be explored on a case by case basis.</p>	<p>Financial services models to apply based on margins of value.</p>

STN is a wholesale infrastructure provider, with hard technical and associated soft infrastructure capabilities eg. know-how, intellectual property etc. The wholesale services it provides to Regional Hubs can be resold or simply utilised via in-house operational divisions. The nature of the blockchain environment is that as actors within the ecosystem improve capacity and develop services that can be deployed as smart contracts, these will become available to others and be revenue streams for the service provider (the actor that developed and deployed the smart contract) and for the wholesale infrastructure provider.



The Smart Trade Networks ecosystem already has hubs or enterprise partners in the following countries or areas of services specialisation:

- Australia;
- Hong Kong SAR;
- China;
- South Africa;
- United Kingdom;
- Argentina;
- Vietnam;
- Paraguay;
- Colombia;
- Singapore; and
- ESG Financial Services (Australia).

Through these partners, we are working with projects in North America, Japan, Brunei and the Seychelles. The South Africa team, harnessed through DataLedger Pty Ltd, also covers the surrounding national markets of Africa.



Membership Participation and Privileges: Next Generation Tokenised Benefits

If it's good enough for Lionel Messi ...

Lionel Messi - the world's most famous footballer - recently joined Paris St Germain. Part of his package is payment on the Club's crypto-token, \$PSG.

For PSG fans, these tokens have considerable value as they enable them to [participate in a range of activities related to the Club](#) - something that they all care about in common.

In many respects the PSG token points to a much broader approach to value than a narrow focus on *crypto-currencies* suggests.

The Smart Trade Networks blockchain infrastructure-enabled global ecosystem has embarked on a similar path. In parallel to the more traditional models of enterprise development and equity, the Smart Trade Networks ecosystem is about to take its next big step forward with a focus on Membership Rewards managed via a token issued to function as a Proof of Contribution.

STN: Membership Rewards Token

The STN token is the Membership Rewards token that runs in parallel to, and interacts with, the supply chain ecosystem that is emerging on the infrastructure.

The STN is issued by a not for profit association - Data Integrity in Supply Chains Association Inc., (DISCA) - and provides a mechanism to track membership contributions and participation in the development and growth of the ecosystem. (More about DISCA is found later in this White Paper.)

Benefits of Membership

Benefits of membership include:



1. Access to STN Infrastructure to develop projects. This enables rapid prototyping, customisation and deployment of systems to support project growth. This is beneficial to enterprises or organisations whether they are small or big;
2. Access to the Credentialed Marketplaces, to sell products and services, and at varying levels of membership benefit from discounts depending on your tokens tally;
3. Access to education and capacity building resources, via our Learn & Earn initiatives;
4. Access to governance mechanisms across the length and breadth of the ecosystem, via our Multisig architecture including but not limited to shaping R&D priorities, project resource deployment, effort rewards distributions etc.;
5. Access to tools and support to initiate projects “from the ground up” to track value flows and reach across the ecosystem to seek synergies and complementary activities;
6. Access to network membership bonuses based on network velocity and volume by member enterprises and member consumers;
7. Access to early-bird opportunities to participate in ecosystem projects;
8. Access to opportunities to operate Network Archive Nodes and be recognised and rewarded for this effort with monthly Membership Reward Tokens. Members who purchase 1,000 STN tokens before 1 October 2021 will receive a pre-configured STN Raspberry Pi Archive Node; and
9. Access to STN Privacy Smartphones. These will be available in early 2022¹ to members who purchase 2,000 STN tokens before 1 October 2021; and
10. For a limited period, memberships purchased prior to 1 October 2021 will also receive a complimentary allocation of STNPay tokens for use in the Marketplaces.

Value Drivers

The STN membership reward token does not have a minting limit. So it's not about scarcity but about creating virtuous cycles of abundance. It will be minted as the network grows. Its underlying value is driven by factors such as:

1. Volume and velocity of activity across the network undertaken by network enterprises and projects; and

¹ Subject to availability and minimum order quantity (500) being met.



2. Membership benefits as described.

The membership value will be driven by the activity of members - as producers, merchants, brand owners and entrepreneurs on one hand, and as consumers of products and services on the other.

The first *Minting Era* will see 400m tokens minted. These will be allocated in accordance with the Table. The reader will notice that allocations are made to acknowledge effort and contributions by various parties or groups, and in “pots” that will be governed by multisigs to deliver transparency and capacity for members to be involved in day to day allocation and management decisions.

Membership Benefits



VALUE FLOWS

MEMBERSHIP TOKENS (STN)

	Contribution	Number of Members / Category	STN / Category	STN / Member	% of Total	STN Global Equity	Project Enterprise Equity	STNPay / Member	STN Smart Phone
Platinum	US\$100,000	40	20,000,000	300,000	5.0	Yes	Yes	10,000	40
Gold	US\$50,000	100	25,000,000	250,000	6.3	No	Yes	3,750	100
Silver	US\$2,500	5,000	10,000,000	2,000	2.5	No	No	1,000	5,000
Bronze	US\$250	300,000	10,000,000	35	2.5	No	No	250	0
Casual	\$1.00	Unlimited	100,000,000	0.2	25	No	No	0.1	0
Proof of Community	Earned	1	100,000,000	100,000,000	25	No	No	0	0
STN5 Reserve	Exchanged	1	20,000,000	20,000,000	5.0	No	No	0	100
Projects	Earned	40	40,000,000	10,000,000	10.0	No	Yes	0	40
STN Global	Earned	1	75,000,000*	75,000,000	18.8	Yes	Yes	0	10
Total			400,000,000		100.0				

The STN is a Membership Rewards Token, which tracks effort and contribution. It is issued by DISCA Inc. There are no limits on minting. The details above are estimates for Era 1 minting. As the ecosystem expands through effort, contributions and people learning and earning, additional STN will be necessary. The minting will be undertaken in consultation with the community. The STN will be listed on public exchanges subject to the desires of the members.

*Paid out in 4 equal amounts of 18,750,000 on the following milestones: #1 Launch; #2 STN token issuance (excluding the STN Global amount) reaches 80m; #3 STN token issuance (excluding the STN Global amount) reaches 160m; #4 STN token issuance (excluding the STN Global amount) reaches 240m.

Future token minting events will need to be agreed by members through applicable multisig mechanisms. The same goes for listing of the STN membership reward token; if sufficient members want the token to be listed and are willing to contribute liquidity to activate a market then this will happen. Meanwhile tokens can be swapped with others via multisig groups.



The approach to governance enables a bottom-up approach to membership engagement and involvement. Rather than lock in a set of predetermined rules we prefer to create tools that enable communities to design, adapt, adjust and modify governance mechanisms as circumstances demand.

STN Pairs

STN tokens can be exchanged for the following cryptocurrencies:

1. ETH;
2. USDT (future);
3. \$BEEF; and
4. STN5 (for a limited time).

STNPay (STNp)

The STN is a membership rewards token designed to acknowledge, track and reward contributions.

In this sense, it's not explicitly designed to support a means of payment function. This needs an **explicit stable token approach**.

The STNp is a network stable token, which can be used in the Marketplaces. The STNp can be purchased over the counter (from Smart Trade Networks, or affiliates in the future) in exchange for USDT or with Fiat currency. No transaction fee is applicable when STNp are purchased. Conversion of STNp to fiat will be subject to a 5% conversion fee, payable in the fiat currency of exchange. The STNp is pegged to the USD at 1 STNp = US\$1.00 for over the counter transactions. There are no inherent limits to STNp minting.

The benefits of this approach is that (a) we are able to maintain liquidity for transaction flow purposes based on demand requirements on the one hand (thus avoiding the paradox of thrift problem, also exemplified in the [babysitter co-op experience](#)); and (b) on the other, ensure the blockchain-enabled tracking of assets and transactions maintains integrity. Not



using a currency that can be tracked via the ledger reduces the overall audit transparency of the ledger.

Value Flows

The Smart Trade Networks ecosystem is in many ways akin to a mutual society, in which members are the users of the infrastructure and the services. As such, as the network generates value through fees revenues, it is able to provide a Reward to members based on the number of STN tokens they hold. Distributions are pro rata. All members of DISCA get STN tokens, based on their contributions.

Value is a social construct. It ebbs and flows, and is only meaningful when it is in motion. Value can take many forms. It can be material in nature, or it can be immaterial or affective. It is frequently contextual, as needs and wants vary in intensity over time and for different people. Value is the common grammar that enables exchange to take place; it's the basis of parties coming to an agreement on equivalence. There are many ways of accounting for value. We have dived to the foundational primitives of value flows by recognising that value ultimately stems from, and is grounded by, things that human beings care about.

STN reward tokens track effort and contribution, and provide member benefits proportionately. STN reward tokens can be accumulated by any of the following 3 main ways:

1. Invest in portfolio enterprises. This is done subject to the relevant compliance obligations of applicable jurisdictions. Investors gain enterprise equity as well as STN reward tokens.
2. Purchase of STN reward tokens without investing in enterprise equity. Purchasing STN constitutes payment of membership dues.
3. Earn STN through contribution of effort, IP or some other in-kind resource. You can also earn STN as a business or organisation by becoming a network user.

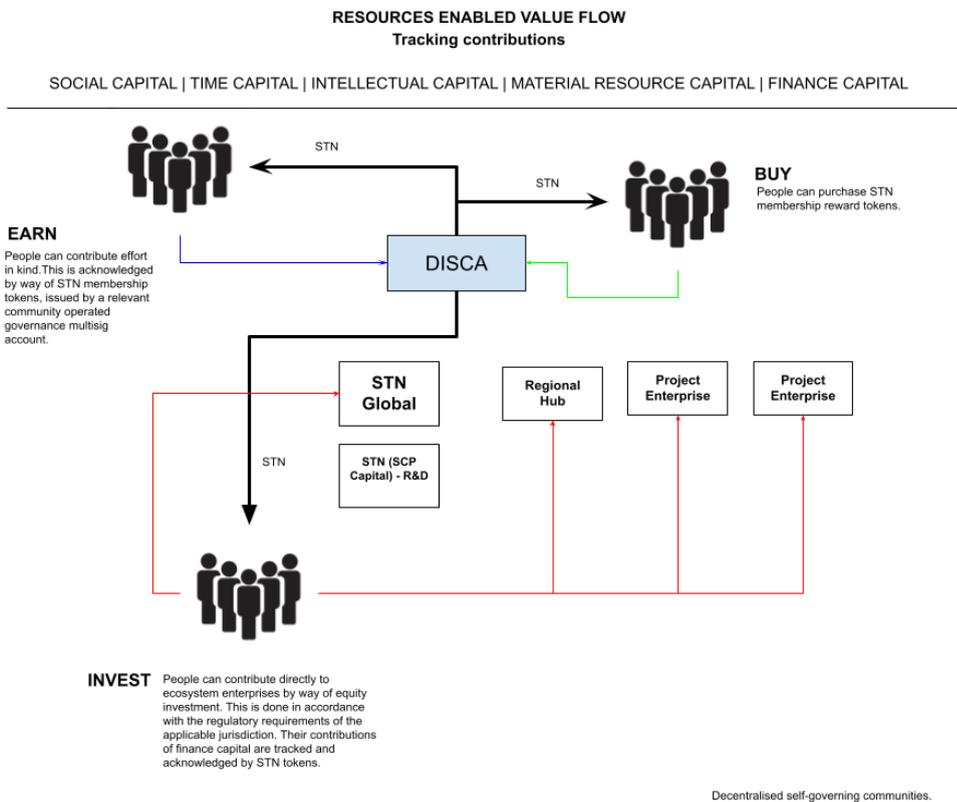
These pathways are summarised in the illustration below.





Data Integrity in Supply Chain Association Inc. (DISCA)

SMART TRADE NETWORKS REWARDS (STN) - DISRUPTIVE TECHNOLOGY, GLOBAL SUPPLY CHAINS AND NETWORK MEMBERSHIP PORTFOLIO OPPORTUNITY



Members will also be able to access other benefits, such as:

1. Holders of STN tokens will have access to discounts on the Marketplace. The size of the discount varies depending on the number of STN tokens held. The discounts range from 40% through to 5%. See table below for conditions.
2. Running an Archive Node, and earning STN tokens as an acknowledgement of contribution to network data integrity.
3. Participating in network governance through various multisig decision-making processes.



Membership Benefits



VALUE FLOWS

STN BENEFITS

	Benefit	STN Threshold
Distributions	Network net proceeds pro rata to token holders	500
Marketplace Discounts	40%	300,000
	30%	200,000
	20%	2,000
	10%	1,200
	5%	750
R&D Priorities Voting	Yes	750
STN Token Listing Vote	Yes	750

These Benefits and Thresholds are indicative. They may be changed in the future by DISCA Inc.

Governance via Multisigs

The heart of the STN governance architecture is a scaffold of multisigs. Participating in existing multisigs or forming new ones is taught as part of our Learn and Earn program. Multisigs are a transparent mechanism by which projects or groups coordinate activities and agree on the management of collective resources. The multisig mechanism is organic, enabling new members to be added and old ones removed. Each multisig can adjust the decision threshold of its own accord, to arrive at mechanisms that best suit the context of the group. Decision-making multisigs include, but are not limited to the following:

- A key area of focus requiring wide-ranging community input is that of short and long term R&D priorities. The R&D team, coordinated through the work of the STN Academy will seek whole-of-community input (via multisigs) on long-term R&D planning as well as prioritisation around shorter term project needs and opportunities.
- Distributions of network net value to token holders is defaulted on a pro rata basis. However, the ecosystem can have their say on whether the distributions should be augmented so that some accumulated value is channeled towards other activities such as: new project funding; a reserve liquidity reserve (to provide for a rainy day);



yield generating DeFi funding of supply chains; public goods funding; training bursaries and impact generating projects.

- There is no cap on token minting. However, the First Minting is of a finite number. Token holders can, however, decide through the token mining multisig to mint more tokens. The team presently expects to list the STN token within 12 months of the First Minting event. However, token holders can vote to bring the date forward and provide the resources to support market liquidity if they wish. Token holders can also decide what token pairs are made available.

Token Functions: A Summary Taxonomy

The ecosystem functions by use of a number of different types of tokens. Different tokens fulfill different functions. A summary of core token types and functions is provided below:

- **STN (Membership Rewards).** STN is the Membership Reward Token. It tracks contributions to the development and growth of the network by way of effort (sweat), self-empowering (education), social capital (growing your own STN circles), economic activity (eg., participating businesses and organisations), intellectual effort (AKA IP) and fiat cash. STN entitles DISCA members to access a growing range of benefits and enjoy diverse privileges of being members of the ecosystem. STN can be purchased or earned.
- **STNPay (STNp) (Network Stable Coin).** The STNPay token is a network-specific 'means of payment' that supports Credentialed Marketplaces transactions (STNPay <-> ERC721) and to make blockchain transactions (eg. asset registrations and tracking). The STNp can be purchased over-the-counter (OTC) with Fiat funds or with USDT, ETH or BTC. STN offers an OTC swap service of STNPay-to-Fiat at a fee of 5% There are no limits to the number of STNPay, and these will be issued on demand. They are sold on a fixed exchange of 1 STNPay for US\$1.00.
- **STN5 (Asset Backed Registered Security).** The STN5 is a specific asset-backed digital security. It is an Australian registered unit in a unit trust (a registered investment trust), which is tracked on the Ethereum blockchain. The STN5 is thus a discrete security, and represents a first generation asset-backed supply chain finance product that offers holders access to a diversified investment portfolio. The STN5 is listed on Uniswap. Additional STN5 may be offered off-market by owners. Other



asset backed securities may also be issued in the future as part of this series eg., STN6, STN7 etc.

THE Data Integrity in Supply Chains Association Inc., (DISCA - see below for details) is focused on opportunities to create value and benefits to members, within the parameters of its founding mission. The benefits of membership described in this White Paper are first generation opportunities, which we anticipate will be augmented and expanded upon as the ecosystem evolves and grows.



Risk Mitigated Growth: Global Diversified Disruptive Portfolio

The Smart Trade Networks team have been working with the DISCA to curate a global portfolio of projects to present to the wider impact consumer and investor community globally.

The portfolio is a dynamic, living pipeline of projects and enterprises operating across the world seeking to build new opportunities by harnessing shared infrastructure, and building value creating propositions and business models through the application of integrity-enhancing technologies.

Guiding Framework

Projects tend to emerge organically. They are supported through investments of resources to upskill and align business models and build robust business cases. The project deal flow pipeline is anchored by a broad set of guiding principles - a framework - that is grounded in a holistic approach to human concerns and needs.

The global portfolio is an ever-growing range of projects across the globe. The first cohort includes a diverse range of projects in various industries in different parts of the world.

The portfolio is underpinned by a curatorial ethos of strength through diversification. The range of projects also delivers network-leverage opportunities through integration and back-end efficiencies.



The power of leverage & integration

THE STRENGTH OF LEVERAGE + INTEGRATION

ECOSYSTEM CURATION PHILOSOPHY BASED ON HOLISTIC HUMAN NEEDS

Portfolio enterprises leverage support & business functions and initiatives off each other.

The portfolio also reflects a concern for projects that contribute to the betterment of people, communities and the planet. Underpinned by Maslow’s hierarchy of needs we have projects ranging from foundational supply chains that meet material necessities like food and housing through to projects that contribute to intellectual, emotional and spiritual development.

Maslow’s hierarchy of needs provides a useful meta-frame to help shape the evolving ecosystem and its constituent projects. Enabling projects that address the entirety of human needs is a risk-mitigation measure as much as it is all about creating new value.

The grounding of value flows in the real needs of humanity is an important principle for the team at Smart Trade Networks and our associated ecosystem of project developers and community leaders. And so, the project portfolio has tended to evolve towards projects that can explicitly demonstrate how the use of new technologies can be done so that the projects are good for people, good for communities and good for the planet.



Sector and Geographic Diversification

The projects coming through the first cohort cut across dozens of sectors, and address opportunities and needs up and down Maslow's hierarchy of needs. Furthermore, the projects can be found across the globe, from Australia through to Africa, South America and a few countries across Asia.

Diversification proves the point that the STN infrastructure is sufficiently general to support a broad range of economic activities and supply chains. Multi-vertical opportunities means the cornerstone infrastructure has risk-mitigated scaling potential.

Diversification also gives the ecosystem resilience and the ability to mitigate risks. The ability to enable cross-border flows provides the means by which ecosystem participants can participate in and contribute to systematic risk mitigation. This is critical in areas such as food systems and food security, for example, as well as in opportunities to create value in the burgeoning carbon credentialing 'green' space. What one project develops can be readily applied to create new value elsewhere in the ecosystem ... and because there is a common infrastructure - a shared grammar so to speak - it is possible to translate learnings and competencies from one area to another quickly.

The diversified portfolio also provides opportunities for new value creation opportunities to materialise because of newfound linkages. Sharing data and knowledge across the ecosystem provides actors with opportunities to harness the value creation potential of trade, capture new value rapidly through knowledge sharing and leverage the efficiencies of common architecture. Technical updates and features developed for one activity can boost the functions and competitiveness of others in the ecosystem; everyone is the winner of ongoing ecosystem-wide improvement.

Cohort 1 Overview

Smart Trade Networks is pleased to be supporting a diverse range of projects across the globe, which have been curated through the work of DISCA.



The first cohort of projects that are coming on stream are an exciting mix of industries and geographies. They address the full gamut of human and social needs, and thus present a sustainable range of activities with strong value growth potential.

We have grouped projects, though there are strong cross-sector overlaps and opportunities for leveraged benefits via integration. The main groupings are:

- Carbon Mitigation;
- Food security;
- Wine and spirits;
- Advanced materials;
- Decentralised finance;
- Property fractionalisation;
- Media, entertainment and arts;
- Data and communications technologies; and
- Education and research.

Investment Opportunities

Each project has varying and discrete investment opportunities, and interested parties can request additional information by emailing: admin@smartradenetworks.com.

Joining the Ecosystem

The ecosystem is continually expanding with participating enterprises and projects. Anyone interested in growing their business or creating new business opportunities utilising blockchain technologies can do so by contacting us at admin@smartradenetworks.com.

One of our Regional Hub team members will be in touch to discuss your project requirements.

Carbon Mitigation

Economies globally are striving towards achieving significant carbon reductions over the next 3 to 4 decades. Effective and trustworthy credentialing of decarbonisation or carbon offset impacts and claims will be central to verifying performance against targets. Green Finance will be anchored by independent verification and validation. STN is working with



leaders and innovators in various areas that can meaningfully impact carbon mitigation.

Projects include:

1. Carbon abatement in livestock production systems. This project emanates from decades' of industry know-how and practical experience in the Australian beef industry, and is also expanding to address opportunities in New Zealand, South America and South Africa.
2. Green energy credence claims. We have two projects globally addressing issues related to tracking and credentialing claims made about the energy inputs of production systems touching on hydrogen, metals and significant industry products like ammonia.
3. Starch-based high-tech packaging technologies, with proven high-impact benefits in terms of carbon capture when returned to the earth. Ongoing laboratory testing and production refinement will see further improvements in impact ranges, with global applications.
4. Activated carbon production utilising unique and patented manufacturing technologies. These systems have been operational for a number of years, and are gearing up for diversified global expansion on the back of robust credence claims.

Food Security

Climate change is impacting food security globally. Coupled with risks associated with under-supply (often resulting from global misallocation), STN-related projects are also tackling opportunities to grow value through fraud mitigation in supply chains, provenance brand value expansion and new supply chain models that reduce transaction overheads, reduce rent-seeking and grow value for players along the supply chain. Projects include:

1. BeefLedger. This initiative has focused to date on the Australian red meat supply chain, with particular consideration given to exporting premium grade products to China. The project also has domestic applications, and is in discussions with export channels into Japan, Vietnam and Malaysia.
2. BeefLedger South Africa. This initiative leverages the technological foundations of BeefLedger to customise and deploy systems suitable for the South African market. The South Africa regional team has identified a significant gap in domestic Livestock Inventory Management Systems through the use of digital technologies. The project



- fills the gap and does so cost-effectively. Future expansion to support LITS digitalisation in neighbouring countries has also been identified together with opportunities to develop credentialed supply chains to South East Asia and China.
3. BeefLedger South America. This initiative leverages the technological foundations of BeefLedger to customise and deploy systems suitable for the South American market, focusing on Argentina and Paraguay. The South America regional team has identified a significant gap in domestic Livestock Inventory Management Systems through the use of digital technologies. The project fills the gap and does so cost-effectively. Future expansion to support LITS digitalisation in neighbouring countries has also been identified together with opportunities to develop credentialed supply chains to South East Asia and China. We work with industry leaders like the Argentina Hereford Breeders' Association.
 4. LambLedger South Africa. Credentialed lamb production systems anchor the economic vitality of provenance-rich regions like Karoo. LambLedger is developing prototypes to enable the Karoo producer network to consolidate its leadership position in provenance accreditation and pave a pathway to digitalisation of existing systems to create new value and reduce costs.
 5. TunaLedger. This project is being developed with key stakeholders in the Indian Ocean YellowFin Tuna Fishery, revolving around the infrastructure and resources of the Seychelles. Critical resource management challenges have been identified to realise long-run sustainability, and effective multi-stakeholder tracking on blockchain is vital to delivering transparency to drive improved supply chain function.

Wine and Spirits

Wine fraud is a big problem, especially for highly sought after products from all over the world. The markets are also seeing the emergence of artisan production systems and boutique brands, focusing on strong narrative-based brand value propositions. The STN ecosystem is working with a number of projects focused on delivering wine and spirits authentication for both established large scale producers as well as for artisan producers and brand owners. Projects include:

1. WineLedger South Africa. The WineLedger SA project is being curated by South Africa Hub, DataLedger. The WineLedger SA project is currently delivering a



prototype for an established wine producer, customising the tools of the STN infrastructure.

2. WineLedger Australia. The WineLedger Australia project is being curated by local Australian partners. The focus is on creating digitally rich customer experiences that support new business models (direct B2C) and unique value propositions for boutique winemakers focused on building strong, loyal customer ecosystems. Tackling product counterfeiting through transparent credentialing is part and parcel of this initiative.
3. Paradise Distillers. Paradise Distillers is an artisan distiller of fine spirits, launching in 2020. Paradise Distillers works directly with STN to track its products on the blockchain.

Advanced Materials

Breakthroughs in material sciences can contribute significantly to better environmental outcomes in areas such as packaging and pollution mitigation. The STN ecosystem is pleased to be working with two projects that have active capabilities and scientifically validated advanced materials and products, which can contribute to these outcomes. The projects are:

1. Starch-based high-tech packaging technologies, with proven high-impact benefits in terms of carbon capture when returned to the earth. Ongoing laboratory testing and production refinement will see further improvements in impact ranges, with global applications.
2. Activated carbon production utilising unique and patented manufacturing technologies. These systems have been operational for a number of years, and are gearing up for diversified global expansion on the back of robust credence claims.

Decentralised Finance

Intermediated financial solutions were necessary when trusted third parties were needed. Satoshi Nakamoto provided the world with a means to migrate away from this structure, when peer-to-peer transactions could be delivered security and with integrity. The STN ecosystem is already working with a number of projects that are designing and developing P2P systems, utilising blockchain technologies. Projects include:



1. STN5. The STN5 is an industry leading asset-backed registered security. The STN5 project is mainly focused around opportunities in regenerative food systems and allied technologies. The STN5 is available on Uniswap.
2. SME Finance. The SME Finance project is focused on enabling P2P finance to small and medium sized business owners.
3. CRC Partners. The CRC Partners team have designed an integrated deal flow management system that aligns with the requirements of the Australian regulated mainstream finance systems landscape. The team is focused on curating and matching deal flow programs with strong ESG elements, and enabling projects to source finance through compliant mechanisms.

Property Fractionalisation

Property is recognised as a solid, stable asset class. However, traditionally, accessing this class of assets in a diversified portfolio sense in particular faces large transaction cost barriers for many people. The 'lumpy' illiquid nature of property also makes it challenging for properly functioning markets to form for things like retirement incomes drawn off property equity, and rent-to-buy schemes. Teams working within the STN ecosystem are tackling these problems, with projects including:

1. UBB01. This is the first of the Unbanking the Banked series. This project fractionalises residential property to enable the replacement of traditional bank mortgage finance with community equity finance.
2. NEN. This is a community-title multi-dwelling community project, aimed at delivering affordable housing in an ecologically focused residential setting. Community contributions are tracked via a project token.
3. Global Travellers Club. This project is working to fractionalise accommodation assets across the world, enabling a membership privileges opportunity to both own equity in the assets themselves, and also access use rights and privileges as well. The project is underpinned by a portfolio of seven apartments located on the Gold Coast of Australia.



Media, Entertainment & Arts

Human health is more than just food in the stomach. It's also about intellectual and emotional sustenance and enrichment. That's why the STN ecosystem is seeing the emergence of projects within the broad media, entertainment and arts space. Projects include:

1. Self Helpless. An Australian film project, with a suite of projects in the pipeline of this emerging production house. Shorts available soon.
2. Artlink Labs. A website-agnostic platform allowing creatives and intellectual property owners to collaborate and monetise their art.
3. Indigenous Art. The STN team is working on a number of prototypes with different artists and art communities. Credentialed products and preservation of provenance value are critical to indigenous communities for whom 'art is the economy' in many cases.
4. Consoom. This project is designed to enable communities of media consumers to reward journalists on the basis of content quality.
5. Art provenance (Japan). The STN team is working with collaborators in Japan to scope a cross-national art exhibition transport and logistics project. This initiative will lay the groundwork for the development of an auctions market for artworks in Japan.

Data & Communications Technologies

Digital inclusion must open up opportunities for accessing digital infrastructure and participating in the economic systems of data collection and distribution. Decentralised technologies open up new possibilities for community-driven models of data collection and infrastructure delivery. Projects operating in this arena within the STN ecosystem include:

1. Elemental Care - Decentralised Ecosystem Data Collection and Value. This project leverages expertise in environmental IOT (with a background in water quality analytics) to design a new decentralised model of data collection, distribution and consumption. Rather than be dependent on centralised entities deploying IOT sensors and owning the data (and controlling the information and benefits), this project turns the systems on their heads with incentivised mechanisms that support and enable anyone, anywhere to become a Data Farmer.



2. Community Telecommunications. This project has been designed by telecommunications engineers in Australia with over 30 years of international experience in engineering cost-effective distributed telecommunications networks. We harness this know-how to design low-cost, community owned infrastructure that provides communications infrastructure as a core service. Users benefit from accessing high performance low cost services.
3. STN DEXNODES. Decentralisation of information systems is about many things, including accessibility, information symmetry (and with that, evening out the power imbalances in supply chains) and system integrity and resilience. The STN team are achieving this by deploying Archive Nodes to Raspberry Pi's to enable access to DISCA members (conditions apply), and are working to push out Archive Node capabilities to our STN SmartPhones. The SmartPhones project is also focused on Privacy Preserving design features from the Operating System up.

Education and Research

Capacity building and enabling research as a public good to be funded is one of our passions at STN. We are reinventing capacity building and public goods R&D through a number of initiatives including:

1. Casugol partnership. This partnership is with Singapore-based technical education and certificates service provider Casugol. Casugol has a strong presence across South East Asia, and the partnership sees STN become Casugol's global exclusive blockchain content creation and delivery partner. The partnership will lay the foundations for the progressive establishment of STN Academies across the world.
2. Patents as Public Goods. The R&D team is working through the design of a tokenised fractionalisation protocol to enable patents to be funded and registered to distributed networks of rights holders.
3. Tokenised R&D. Tokenisation of R&D aims to properly track research work and effort, and link it ultimately to the patents as a public goods initiative. The tokenisation of research is all about enabling post hoc valorisation of research effort.



Deal Flow Pipeline

In addition to projects identified in cohort 1, DISCA is actively working with STN ecosystem enterprises, hubs and communities to expand the deal flow pipeline.

Projects can enter the deal flow pipeline either as:

1. Mature enterprises or supply chains seeking to make the transition to E-Commerce 3.0. We work with individual enterprises as well as groups or enterprises, whole supply chains or industry associations to customise the alignment of the STN technical foundations to the requirements of the specific use cases;
2. Emerging businesses, aiming to build new business models around the possibilities of E-Commerce 3.0. We deliver a scaffolded approach to onboarding and empowering these enterprises; or
3. As nascent ideations, seeking to explore the possibilities of blockchain technologies. Here, we nurture entrepreneurs through our self-initiated self-governance project emergence processes, anchored around the Learn and Earn program.

Interested parties are encouraged to contact the team (admin@smarttradenetworks.com) to discuss how joining the STN ecosystem can help their business.

Referrals or introductions of potential partners to Smart Trade Networks is recognised by a provision of STN membership reward tokens. These tokens are provided in acknowledgement of the effort and social capital that is committed to referrals or introductions. Tokens are issued by approval of the applicable multisig, upon successful onboarding of the enterprise.



STN Academy

We have designed the infrastructure through serious R&D, supported by collaboration with university researchers across the globe. Peer-reviewed rigour helps hone the approaches and ideas, as they are pushed out into a real world development environment.

Empowering communities across the world to benefit from integrity-enabling systems and participate in virtuous value flow systems means we need to commit to ongoing research and development, and ongoing capacity building.

The Beating Heart of R&D

At the heart of the R&D work is our relationships with the teams at Queensland University of Technology in Australia, and the Future Foods Systems Cooperative Research Centre (CRC). We look forward to ongoing R&D within this collaborative environment, and to pushing out the work to allied areas through these partnerships.

Similarly, we seek to extend our collaborations with researchers globally. We have been party to a range of global exchanges already, principally with parties in Africa and China. Our next phase of work will see our R&D focus strongly on cross-border legal and technical standards, particularly as they affect cross-border trade and payments. Our Future Food Hubs projects series, being undertaken within the CRC framework will be focused on these dimensions over the next 12 months.

Global Academy

We aim to progressively establish training Academies in countries where the Smart Trade Networks infrastructure has local hubs and partners. New hub partners are welcome to reach out.

The Academies will in the first instance be underpinned by education curriculum developed in partnership with Singapore-based technology education and certificates operator, Casugol. The programs cover all core aspects to enable people, communities, organisations



and enterprises to become proficient in the design and application of Smart Trade Network infrastructure to their specific opportunities and requirements.

Education Certificates

STN is the global exclusive blockchain content developer and delivery partner of Singapore-based certification provider Casugol. Casugol's has built a strong reputation across South East Asia in providing corporate and individual technical and technology-related training; adding blockchain curriculum to its suite through partnerships with STN provides people around the world with a Singapore-issued certificate as they proceed on their formal education pathway. Our roadmap is to link these certificate programs to university entry requirements through Recognition of Prior Learning.

Our vision is to enable each of the Academies to become content creators, serving the ecosystem as a whole, and creating new value flows based on new knowledge and capabilities.

IP as a Public Good

We are presently curating a project that envisages IP as a public good, the benefits of the development of which is acknowledged via the tokenization of patents and other instruments of IP rights.

Community Education

We have pioneered a ground-up viral education process, empowering and rewarding members of the community to upskill and build their own education communities. Our Learn and Earn program supports people as they develop themselves and at the same time contribute value to the community at large. Community Education is recognised through STN tokens, and can lead to further education / training opportunities through our partnership Certified Programs.

STN Moonshot Reserve

We believe that by Year 6 in our development vision, the STN ecosystem will have reached a point where it will be in a position to sustainability and confidently commit a portion of



network proceeds to an STN Moonshot Reserve. This Reserve will accumulate resources to channel into pure research in areas of planetary and human life sciences, by working closely with leading research institutions.

Education Bursaries

A Learning Bursary will be established as part of the Moonshot Reserve, focused on enabling disadvantaged youth from around the world to access education. Applications will be invited and the STN community will determine the allocation of the Bursary.

Governance

Funding priorities will be shortlisted by an eminent panel (to be selected by DISCA), and be put forward to the community for determination of priorities. The decision-making mechanisms that will be employed will be examined through engagement with the community at large, and by learning from the experiences of groups experimenting with decision-making mechanisms such as quadratic voting and such like.



Community and Ecosystem Development - about the Data Integrity in Supply Chains Association Inc.

About DISCA

The Data Integrity in Supply Chains Association Inc. (DISCA) is a not for profit association incorporated in Australia. It is a membership-based association that is focused on harnessing members' resources to promote and advance the mission of the association and deliver membership benefits.

Mission

The *Mission* of DISCA is:

1. Support the Smart Trade Networks projects ecosystem to deliver systems that provide data integrity in supply chains.
2. Enable the production, verification and maintenance of a body of common knowledge in a dynamic digital ecosystem that Members can depend upon as the basis for engaging in financially sustainable, value-creating transactions in global supply chains.
3. Curate, broker and empower people, communities and projects to make use of these capabilities to deliver authenticated, trustworthy products and services that enhance supply chain community sustainability, human wellbeing and improve the health of the planet.
4. Support ongoing research and development and global education to empower communities to participate in socially responsible and ecologically sustainable value creation.
5. Focus on activities that enhance the health of people, communities and the planet.



Membership is open to all. Ownership of STN confirms membership. Governance is via the multisig tools, which enables an organic development of multisigs to efficiently govern association focus and resource allocations.

DISCA has been working with Smart Trade Networks to curate a global portfolio of projects that align with the association's mission. Opportunities to invest directly in these projects or enterprises are now open. Investing means a contribution to network development and is therefore recognised via allocation of STNs.

Other contributions of effort and resources will also be recognised.

Emergence & Provenance

DISCA has been operating for the past 2+ years as an unincorporated association. Its mission has been largely unchanged in that time. Prior to the unincorporated association forming, the work was undertaken from a 'grassroots' industry+community level through the work of individuals, organisations and businesses with shared objectives to improve the functioning of global supply chains.

Guiding Principles

DISCA's guiding principles, inspired by the [principles of the global alliance of cooperatives](#), are:

1. **Voluntary and open membership.** Anyone or any organisation / enterprise purchasing or earning STN membership reward tokens are deemed to be members of DISCA and are entitled to participate in the activities and work of the association and to benefit from the work of the association. Membership is relinquished when no STN tokens are held.
2. **Democratic member control.** Members actively participate in setting their policies and making decisions. We use multisig protocols (see Governance below) to give effect to membership governance.
3. **Member economic participation.** Members contribute equitably to, and democratically control, the capital of DISCA. At least part of that capital is usually the



common property of DISCA. Members usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing DISCA, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with Smart Trade Networks ecosystem enterprises; and supporting other activities approved by the membership.

4. **Autonomy and Independence.** DISCA is an autonomous, self-help organisation controlled by its members. If DISCA enters into agreements with other organisations, including governments, or raises capital from external sources, it does so on terms that ensure democratic control by its members and maintain its cooperative autonomy.
5. **Education, training and information.** DISCA provides education and training for its members, elected representatives, managers, and employees so they can contribute effectively to the development of DISCA and its affiliated initiatives. DISCA will actively inform the general public - particularly young people and opinion leaders - about the nature and benefits of DISCA and the Smart Trade Networks ecosystem.
6. **Cooperative.** DISCA serves its members most effectively and strengthens the principles of cooperation and mutuality by working together with other like-minded organisations through local, national, regional and international structures.
7. **Concern for community.** DISCA works for the sustainable development of its constituent communities through policies approved by their members.

Founding Members

The association was founded by the following people and organisations:

1. Warwick Powell
2. Charles Turner-Morris
3. Ross Honeyman
4. Thomas Miller
5. Greg Narracott
6. Patrick Wu
7. Xu Qilin
8. Sister City Partners Limited (a not for profit company)



9. CRC Mutual Limited (a not for profit company)
10. Consumer And Small Business Association (unincorporated)
11. BeefLedger Limited
12. SCP Capital Pty Ltd

Governance

DISCA is governed by its articles of association. To give effect to its articles, DISCA recently embarked on an experimental program of decentralised technology-enabled self-governance by way of the association's Multisig Tree ([see the Tree here](#)). The Multisig Tree is an organic construct, enabled by the underlying STN multisig contract. This enables multisig groups to be formed as the need arises, to enable activated and localised governance on issues such as resource priorities and allocations, tracking of effort and such like.

As an organic tool, new multisig groupings can be formed for use for small and large projects; as well as for short- and long-term initiatives. The multisig tool can be used to support neighbours coordinating resources for a street party, or a sporting club harnessing and tracking resources for a working bee right through to commercial project emergence and development. Joint venture projects are particularly well-suited to being governed using multisig protocols.



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