

Blockchain for Social Impact

Your Presenters:



Damian Hajda - Socialsuite

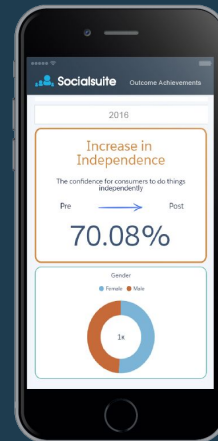


Joyce Zhang - ixo





Technology for Measuring Social Impact





The Blockchain for IMPACT

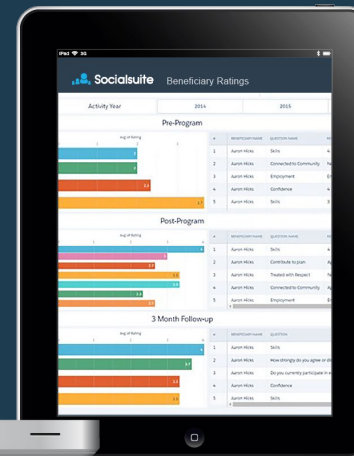
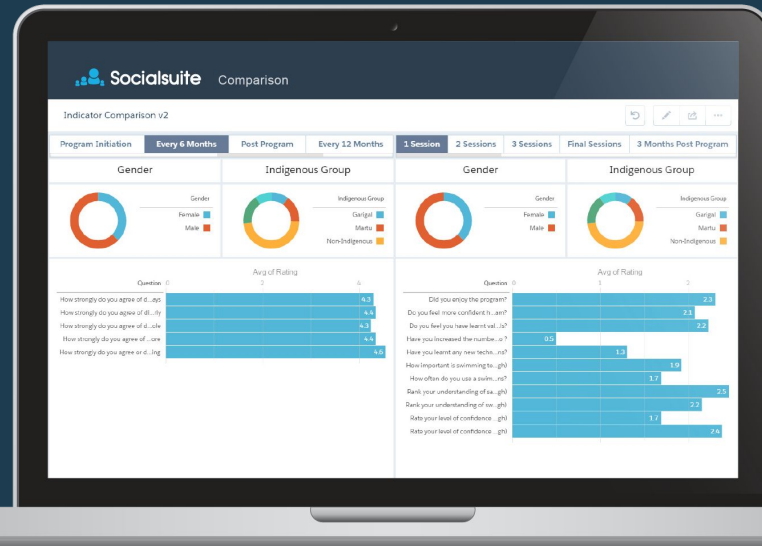
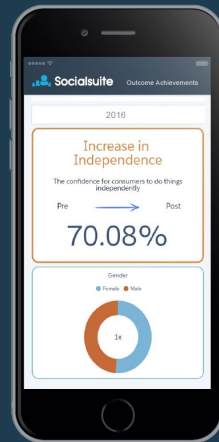
Count what matters. Value what counts.

Agenda

- Technology for Measuring Impact: About Socialsuite
- Socialsuite + ixo: Blockchain for Measuring Social Impact
- Blockchain 101
- Blockchain for Social Impact Case Studies
- Discussion and Q&A




Socialsuite



Over 1 trillion US dollars is invested every year on social impact projects supporting the United Nations **17 Sustainable Development Goals**:





Billions of dollars are wasted funding inefficient programs and services

Measuring their impact allows organisations to improve services and secure funding



The Problem

Funders want Social Impact reports on their investments but don't know what to measure

External Consultants are engaged to design tailored social impact measurement metrics for once off usage

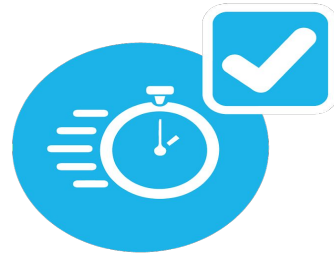
Service Providers are given these metrics and burdened with long term data collection

How do you trust the Data

How do you share the knowledge

The Solution

Socialsuite is a data collection platform and mobile app with an **online marketplace** of validated **impact measurement metrics** to report effectiveness of solutions to social problems



Save
Time



Improve
Services

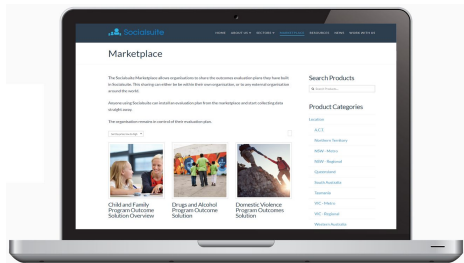


Secure
Funding

How Does Socialsuite Work

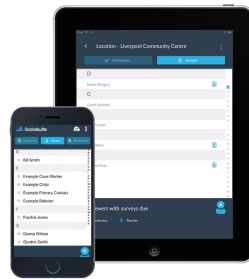
Online Marketplace

Choose a validated impact measurement framework from hundreds on our impact marketplace.



SaaS Platform with Mobile App

Frontline staff easily collect impact data from multiple sources over time using our SaaS platform and mobile app.



Dashboards & AI

Our Dashboards show impact achieved in real time with artificial intelligence benchmarks against similar investments.



Smart Contracts for funding

Data collected in Socialsuite combined with the ixo blockchain protocol allows smart contracts to release funding based on verified social impact. Share the knowledge



Who Uses Socialsuite



Funders

Government, Philanthropic and Corporate funders



Community Services

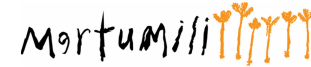
Not-for profits and community service organisations



Impact Measurement Consultants

Anyone who designs impact measurement metrics and frameworks

Who Uses Socialsuite



Socialsuite + IXO: Blockchain for Social Impact



Media



Search Term

Features

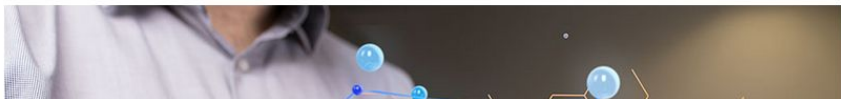
Q & A

Q&A v
Americ

Most

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Blockchain for measuring social impact: Socialsuite a first mover



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Socialsuite partners with IXO

Newsbites Finance | 5:03PM January 24, 2018



Melbourne-based technology platform Socialsuite has partnered with IXO, a blockchain protocol to deliver some of the world's first blockchain smart contracts for funding based on verified social impact.

Socialsuite is a SaaS platform with a digital marketplace of validated impact measurement metrics that assists not-for-profits and community service organisations measure and report on the outcomes and impacts of their services, improving their service delivery and ability to obtain further funding.

It also provides solutions for government, philanthropic and corporate funders to report on the effectiveness of their investments in social programs and community partnerships.

IXO has created the world's first blockchain protocol for impact measurement and leverages blockchain technology to optimise sustainable development impact. It has partnered with UNICEF, Innovation Edge and Singularity University Ventures.

Integrating smart contracts with impact measurement, Socialsuite is currently running a trial impact verified smart contract pilot in Australia, one of the first in the world.

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Blockchain Smart Contracts Could Shape Future of Impact Investing

Blockchain smart contracts for funding based on verified social impact could shape the future of impact investing and social impact bonds, according to the founders of a tech company launching an Australian-first smart contracts pilot program.

Herald Sun

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BUSINESS BREAKING NEWS

Socialsuite partners with IXO

Newsbites Finance
January 24, 2018 5:03pm



Melbourne-based technology platform Socialsuite has

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National | World | Lifestyle | Travel | Entertainment | Technology | Finance | Sport

business breaking news

Socialsuite partners with IXO

Socialsuite has partnered with IXO, a blockchain protocol to deliver blockchain smart contracts for funding based on verified social impact.

Newsbites Finance | JANUARY 24, 2018 4:48PM

Melbourne-based technology platform Socialsuite has partnered with IXO, a blockchain protocol to deliver some of the world's first blockchain smart contracts for funding based on verified social impact.

Socialsuite is a SaaS platform with a digital marketplace of validated impact measurement metrics that assists not-for-profits and community service organisations measure and report on the outcomes and impacts of their services, improving their service delivery and ability to obtain further funding.



ixo is the blockchain for 
IMPACT

Using the **ixo** Protocol enables any project to

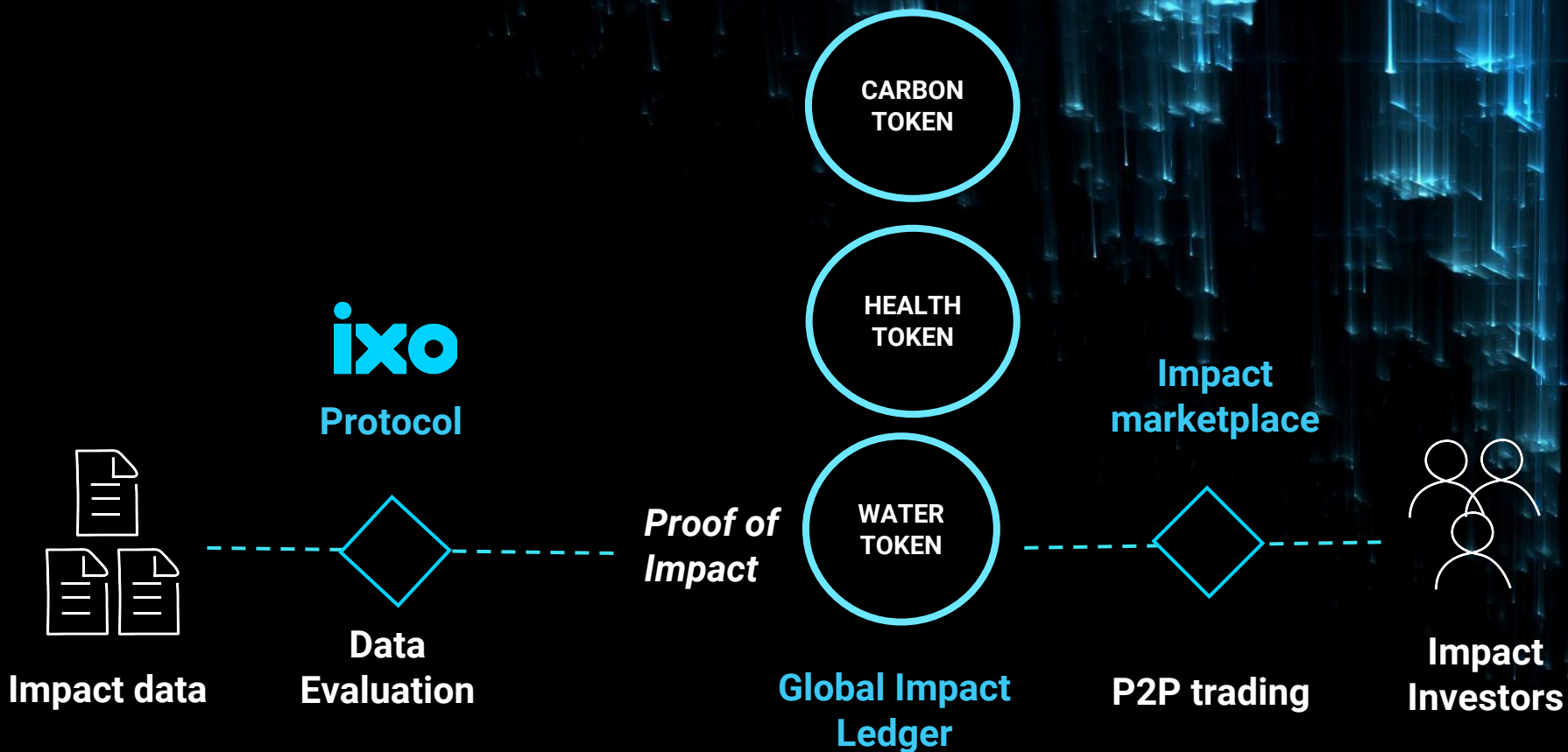
COLLECT -- VERIFY -- TOKENIZE

IMPACT DATA into digital assets called **IMPACT TOKENS**

A blockchain is a distributed database that solves the problem of trust, transparency, and accountability during a transaction between two parties. Using advanced cryptography, each block of data is stored on the chain across a network of computers, or nodes. Thus, the information is not only decentralized but also distributed, which means no single person or entity controls the system, yet everyone can use and help run it. Distributed ledger technology frameworks eliminate the need for and reliance on central authorities such as banks and governments.

THE SOLUTION

PROOF OF IMPACT



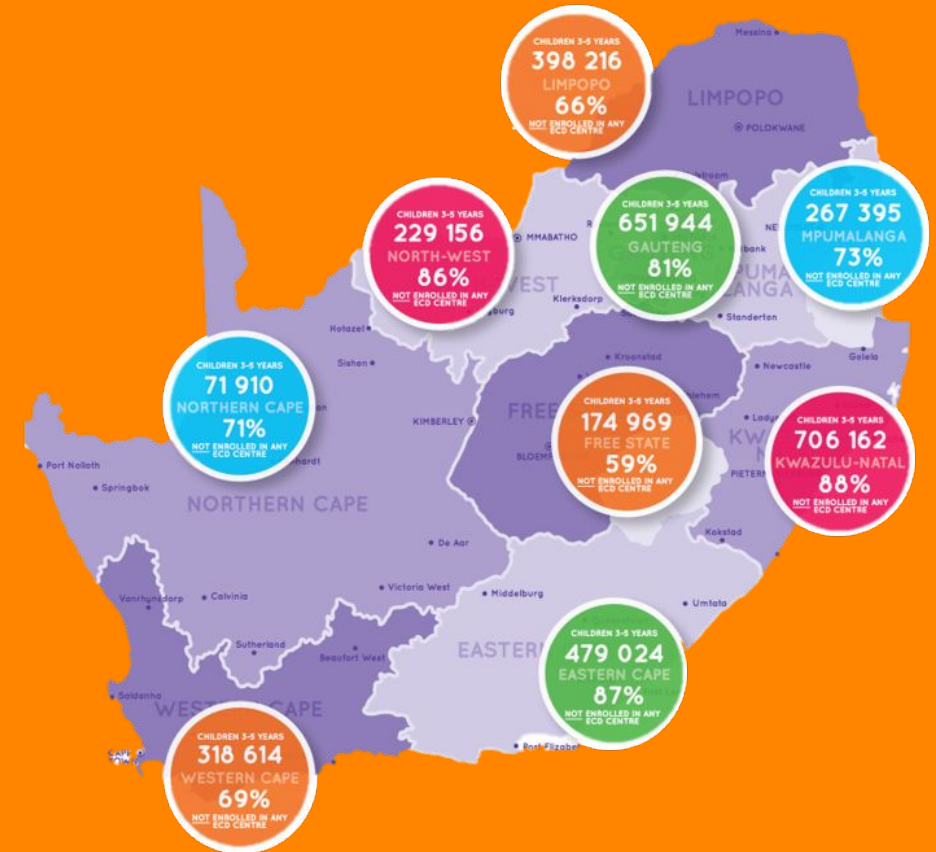


Mobile DApp for early childhood development practitioners in South Africa used to take attendance

AmPLY is being used to replace an existing paper-based system to register children for government funded pre-school subsidy

Claim capture: Each child's attendance

Impact Evaluation: Verification of attendance



In South Africa, the Department of Social Development (DSD) provides a per-child-per-day subsidy for children to access Early Childhood Development (ECD) services (R15 in the Western Cape).

These subsidies are given to children who qualify as low-income through an income means test (<R7000/month per family) for each day attended at a registered ECD centre.

Meet Nomsa, owner of Sinako Educare in Gugulethu.

She, like many other ECD centre owners, must submit monthly or quarterly forms to report child attendance to the DSD. However, this process is not streamlined and can be drastically improved.



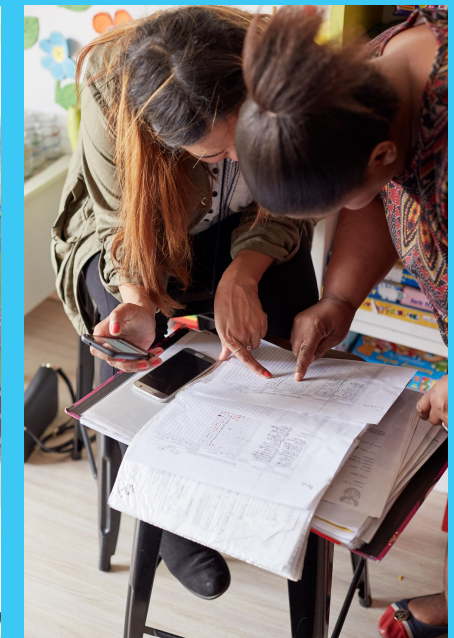
THE CHALLENGE



1. The entire system is paper-based, creating an administrative burden
2. Many schools are not receiving an accurate amount in subsidies
3. NDP Vision 2030 intends to increase the amount of subsidies granted, furthering the backlog
4. Children without ID numbers are unidentified, leaving room for double-counting and inefficient allocation of funds

Previous Paper-based System

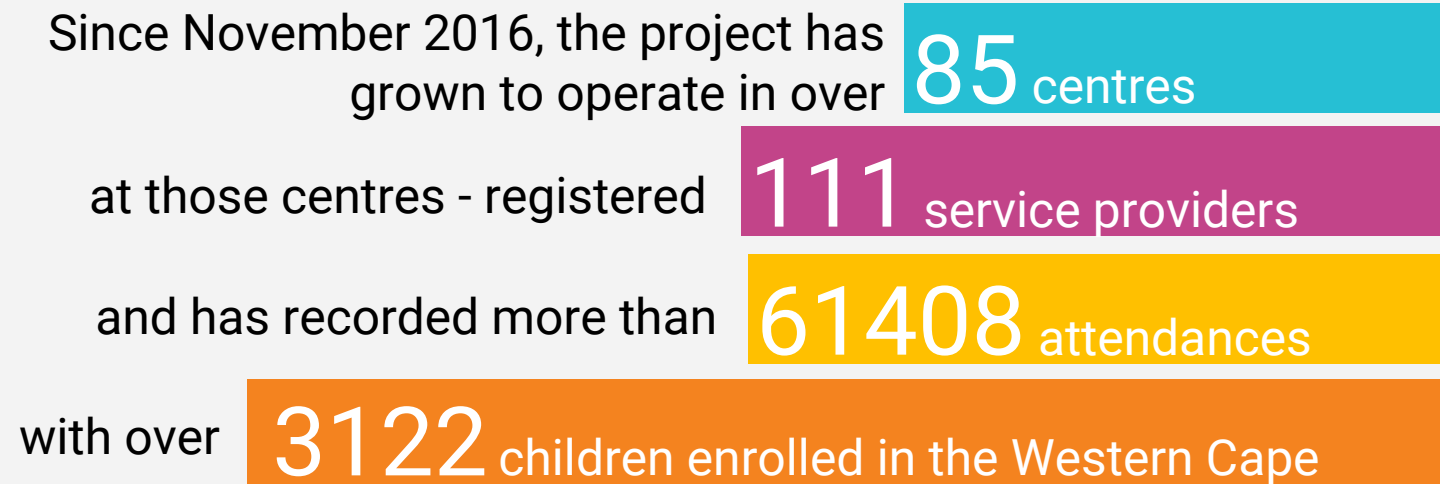
Rainbow Educare Center Tel: 7010665/0728541926 117 Vrygrond Avenue NPO: 064-598, reg. no C0864																																
Dolphins																																
Class	LEERLINGE	Geboorte	Feb-18																													
No.	Sex	Date of birth	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28																													
No.	Totals	Surnames	Names	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
1	M	Chindoko	Liam	2																												
2	F	Chingawo	Mikaylah	2																												
3	M	Chirochierwa	Kayden Yanaya	1																												
4	F	Chitumba	Milckayala	2																												
5	F	Dumzela	Hawa	2																												
6	M	Fente	Zingce	2																												
7	M	Figan	Khantli	2																												
8	F	Hendricks	Ayanda	2																												
9	M	Jacobs	Andrew Junior	1																												
10	M	Kunene	Nizando Prince	2																												
11	F	Kunjwa	Marcellene	2																												
12	M	Kwayinto	Domingo	1																												
13	M	Mayothi	Sange	2																												
14	F	Melouw	Keisha Grace	2																												
15	M	Mpakama	Ausuzwa	2																												
16	M	Musontza	Tinashe Antonly	2																												
17	M	Nwongwe	Abim	2																												
18	F	Msingeli	Opetzwa	2																												
19	F	Ndenza	Nelsiwe	2																												
20	F	Tshalane	Khayone	2																												
Total number of attendance				19	18	19	20	20	20	19	20	20	20	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	
Total number of absences				1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Possible number of attendances				20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Number of school days				2						5						5						5										
Average attendance																																



AmPLY strives to revolutionize early childhood development in South Africa

The vision is to completely replace the existing paper-based system to register children for a government funded pre-school subsidy in South Africa.

With funding from Innovation Edge and UNICEF, we ran our **AmPLY Pilot 1.0** between November 2016 – November 2017



First Pilot Results:

- Created a mobile app that ECD centres could use to take attendance instead of using a paper-based system
- Proved that attendance claims could be ledgered to a blockchain (Ethereum)



AmPLY Pilot 2.0

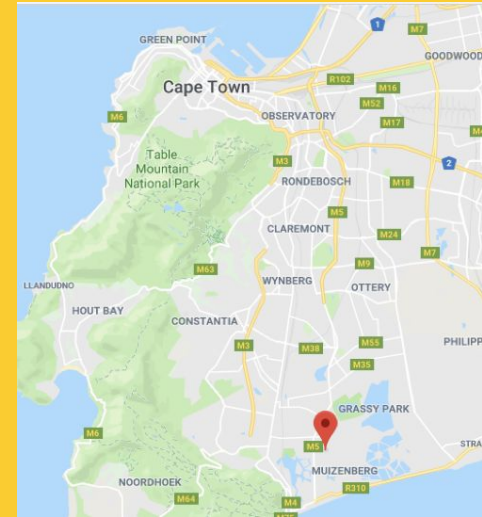
7 ECD Centres in Vrygrond, Western Cape

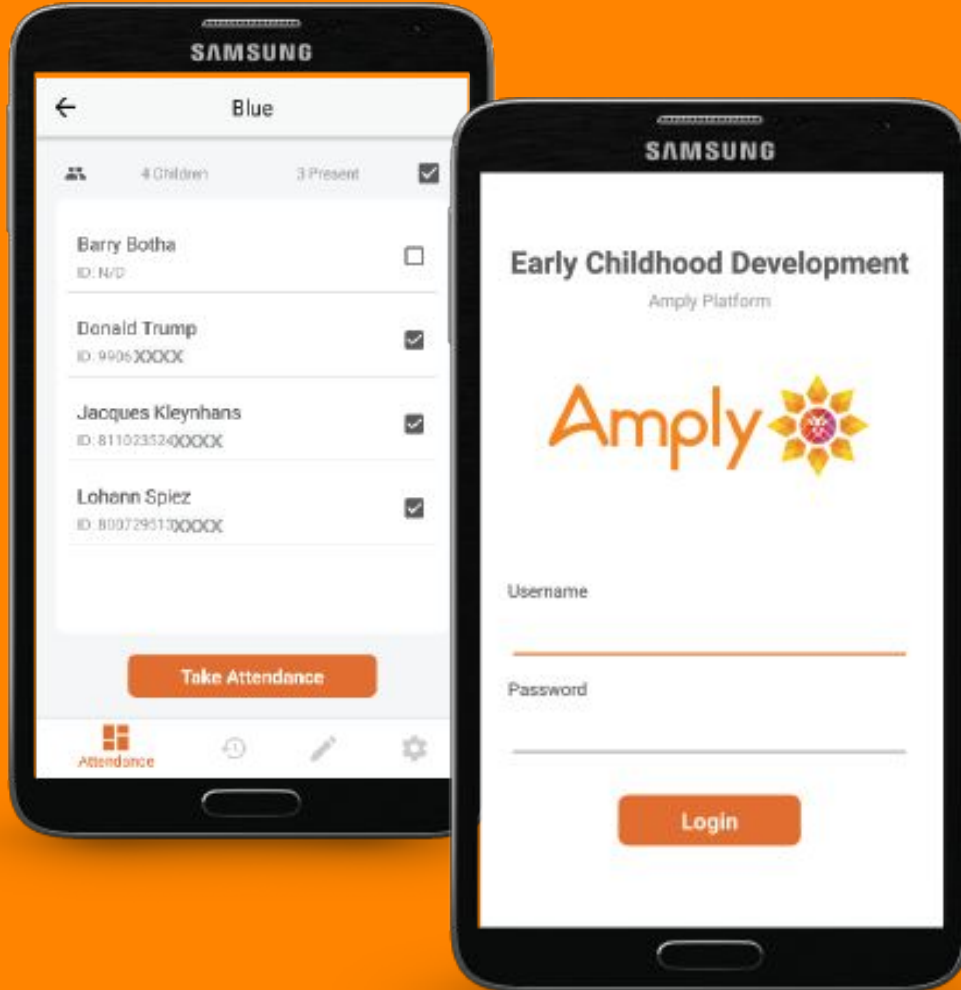
- 4 Registered
- 3 Unregistered

Implementation: April 1 – June 30, 2018

Objectives:

- Auto-generate Schedule B form
- For unregistered centres, possibility for funding from an external funder
- Capture/store the raw data for DSD to access automatically
- Continue to improve app functionality and usability through input and conversation with ECD centres and service providers





How it Works

Every morning, a service provider (teacher or principal) logs each child's attendance in the app.

Underlying the app is blockchain infrastructure and smart contracts, through which a third-party evaluator can verify the claim of attendances made by the service provider.

Upon approval by an evaluator, the service provider will receive a verified record (digital or printed) that he/she can then show to the government, NGOs, and/or other parties for funding and subsidies.

AUTO-GENERATED SCHEDULE B FORMS



SCHEDULE B REPORTING PERIOD:

Insert quarter in the block below

Q3 2016

SUBSIDISATION OF CRECHES

Note: This form needs to be completed every quarter and must be submitted to the Department on or before the 7th working day of the next month.

1. Particulars of facility

Name of crèche / day care centre	Jo's School
Reference number (used in correspondence by the Department) 15/5/13/2/3 C	10733
Physical Address	2 Berg Street, Vrygrond, 7945,,South Africa

2. Particulars of the personnel/staff

Capacity	Name and Surname	Identity Number	Level of ECD qualification
Principle - true Practitioner - true Cook - true Other - true	Shanaaz Hendricks	860-	No Level

3. Certification:

I/we declare hereby the following

- That the facility is still functioning in accordance with the departmental financing conditions
- That the management committee as indicated has been elected and is functioning in accordance with the constitution of the facility
- That, in terms of section 38 (1) (a) (i) of the Public Management Act, 1999, effective, efficient and transparent systems of financial and risk management and internal control have been implemented and are maintained

Chairperson/ Voorsitter

Date/Datum

Western Cape Gedragingsdepartement Social Development		Particulars of child Please list names in alphabetical order				Amplify Number of Days Attended		
	Surname	First name	Date of Birth	Identity number	Month 1	Month 2	Month 3	
1	Abrahams	Xavier		1205	15	19	3	
2	Andriano	Eliza		1210:	9	11	1	
3	Bailey	Miah			14	16	2	
4	Cetywayo	Sibongile		1301:	13	13	1	
5	Chinotsa	Tanya			9	17	3	
6	Diedericks	Yusuf			15	19	4	
7	Dirks	Hennalisa			11	15	3	
8	Dlula	Owethu			14	18	1	
9	Dyani	Lunje			15	19	3	
10	Dyani	Luboneni			13	17	3	
11	Johannes	Rafiek			13	15	3	
12	John	Sharfa		1202	13	17	3	
13	Kakazi	Grace			12	17	2	
14	Kamanga	Sandra		1607:	14	17	3	
15	Kapia	Leontine			14	18	1	
16	Madlongolwana	Prosperity		1212:	10	9	2	
17	Majalamba	Elethu		1304:	15	19	3	
18	Maqashu	Unam	2014-02-23	1402:	15	19	1	
19	Matonana	Aluna			13	15	3	
20	Matonana	Ethu		1212	14	18	4	
21	Mbashe	Esihle			12	14	2	
22	Mcilongo	Simamkele		1205	12	16	3	
23	Moss	Naledi		1212:	11	17	3	
24	Mvumbi	Rafique		1203:	14	19	3	
25	Ngombane	Inga		1304	8	6	2	
26	Nqweniso	Mosuli		1306	9	6	2	
27	Phalaza	Linniko			13	15	2	
28	Pindura	Aashurah		1211:	11	17	3	
29	Pongwana	Siphokuhle			10	5	1	
30	Pretorious	Jayden			13	16	3	
31	Silwane	Sibaphiwe		1205	12	16	3	
32	Silwane	Siwaphiwe		1205	12	17	3	
33	Sitho	Minentle		1301:	12	18	2	
34	Soxujwa	Indiphile			12	16	3	
35	Xujwa	Amahle			10	14	3	
36	Zengetwa	Joshua		1302	15	18	3	

This is shared with the DSD every quarter to secure the subsidy.



RAW DATA FORMS



Jo's School Q32016

Home Insert Page Layout Formulas Data Review View

Times New R... 10 A A

Paste B I U Merge & Center

General

Conditional Formatting Format as Table Cell Styles

B4 fx Andriano

	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	Q
1		Particulars of child				Number of Days Attended										
2		Surname	First name	Date of Birth	Identity number	Month 1	Month 2	Month 3								
3	1	Abrahams	Xavier		120516	15	19	3								
4	2	Andriano	Eliza		121022	9	11	1								
5	3	Bailey	Miah			14	16	2								
6	4	Cetywayo	Sibongile		130108	13	13	1								
7	5	Chinotsa	Tanya			9	17	3								
8	6	Diedericks	Yusuf			15	19	4								
9	7	Dirks	Hennalisa			11	15	3								
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13	11	Johannes	Rafiek			13	15	3								
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16	14	Kamanga	Sandra		160724	14	17	3								
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19	17	Majalamba	Elethu		1.30422	15	19	3								
20	18	Maqashu	Unam	2014-02-23	1.40223	15	19	1								
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22	20	Matonana	Ethu		121213	14	18	4								
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26	24	Mvumbi	Rafique		120330	14	19	3								
27	25	Ngombane	Inga		130413	8	6	2								
28	26	Ngweniso	Mosuli		130612	9	6	2								
29	27	Phalaza	Limniko			13	15	2								
30	28	Pindura	Aashurah		121127	11	17	3								
31	29	Pongwana	Siphokuhle			10	5	1								
32	30	Pretorius	Jayden			13	16	3								
33	31	Silwane	Sibaphiwe		120514	12	16	3								
34	32	Silwane	Sibaphiwe		120514	12	17	2								

Ready

The system generates trustworthy, rich transactional data. By encrypting the data and storing all personally identifiable information within an individual's own personal data store, a detailed record can be built up over time for each person.

Valuable data assets can be derived from this personal information, to benefit the individual and population-based data analysis can benefit ECD programmes.

Self-Sovereign
Identifiers



A3512X41BZ3X159

Common Standard
Global Identifiers



schema.org/person

Data Assets become
Verifiable Claims



Self-Sovereign
Identifiers



Turning invisible children into invincible children



Traction
Use Cases



PLANNED

Development
Impact Bond
(India)

UBS Optimus
Foundation



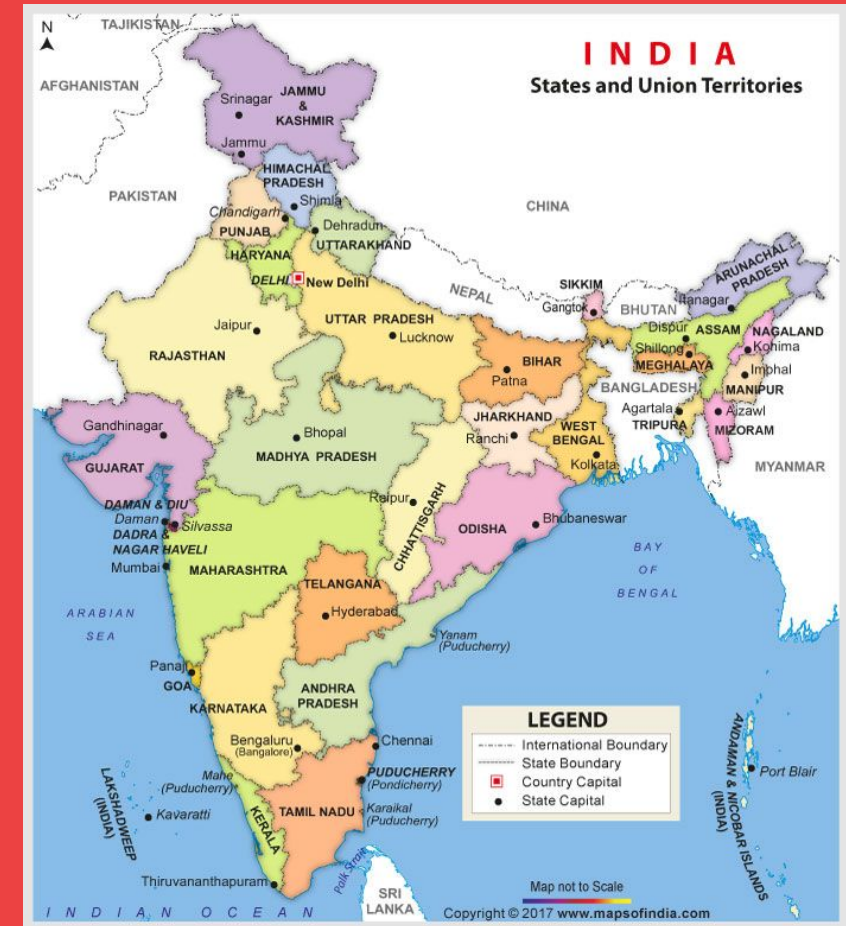
Count what matters. Value what counts.



Smart Impact Bonds for improving educational outcomes for primary school children in India.

Claim capture: Improved performance in English, Hindi and mathematics

Impact Evaluation: Sample selection measured across these subjects, 3x per year by way of a standardised test



The mechanism will be implemented in the context of a new Education Development Impact Bond Fund (EDIBF) in India - the latest fundraising initiative by the British Asian Trust (BAT), set up 10 years ago to combat poverty in South Asia.

This new Development Impact Bond (DIB) is a performance-based fund that supports education providers across India through mentorship, courses and other initiatives. Our project will track the improved learning outcomes of primary school children across 190 schools in Delhi & Rajasthan.

Further Reading:

- [Investment where profit means better schools](#) *BBC News*
- [Prince Charles launches education impact bond for India](#) *Economic Times*

To demonstrate how existing Development Impact Bond (DIB) financing instruments can be implemented as Smart Impact Bonds using the ixo protocol.

That impact bond instruments can be implemented in ways that can be:

- Automated
- Highly-replicable
- Cost-effective
- Optimized to deliver better development outcomes & higher financial returns

- Accelerate the formation of capital that is more effectively distributed to deliver impacts relevant to the Global Goals for sustainable development.
- Increase financial flows to high quality programs that deliver improvements in learning outcomes.
- Contribute to a systemic change in the Indian educational system, by improving the coordination, performance & financing of educational interventions using lower-cost & scalable Smart Impact Bond mechanisms





1.

Impact Investors

Impact Investors use the ixo Portal to set up the Impact Projects that will be underwritten by a Development Bond.



2.

Impact data

Educators create digital registries of children, using self-sovereign digital identifiers. Information about education results are recorded for each child, using a smartphone application. This gets compiled as Impact Claims. Each claim is digitally signed.

Protocol



*Proof of
Impact*

3.

Data Evaluation

Evaluation Agents independently evaluate the Impact Claims, assisted by automated software that processes and validates the claim data. This provides Proof of Impact.

4.



Proof of Impact generates Impact Tokens. Tokens accrue to the Impact Investors, for each verified Impact Claim.

5.



Investors exchange Impact Tokens for pre-agreed Bond payouts, as Performance Targets are met.

6.



Global Impact Ledger

The education Impact Tokens are recorded in a Global Impact Ledger. These Impacts can be seen by everyone & visualized in performance dashboards. This is great for accountability and transparency.

7.

The data on school performance becomes a resource for the world that contributes to a growing Big Impact Data commons governed by the Ocean Protocol. This is a powerful planning resource that calibrates the financing and evaluation algorithms to optimize investments into educational impacts.



WHAT WE VALUE

Impact Optimization

Blockchain offers:

- Provenance of impact data over time
- Transparency of funding
- Accountability for performance
- Attribution of results
- Data sharing marketplace
- **A new asset class for the Impact Economy**



THE FUTURE Tokens for Impact



Utility Token to access the the
ixo Network hosting services

Payment Token for the fees of
evaluation services

Staking Token for Proof of
Stake, Project Sponsorship &
governance

IXO tokens are used to
generate **Impact Tokens**
with Proof of Impact



WATER^x

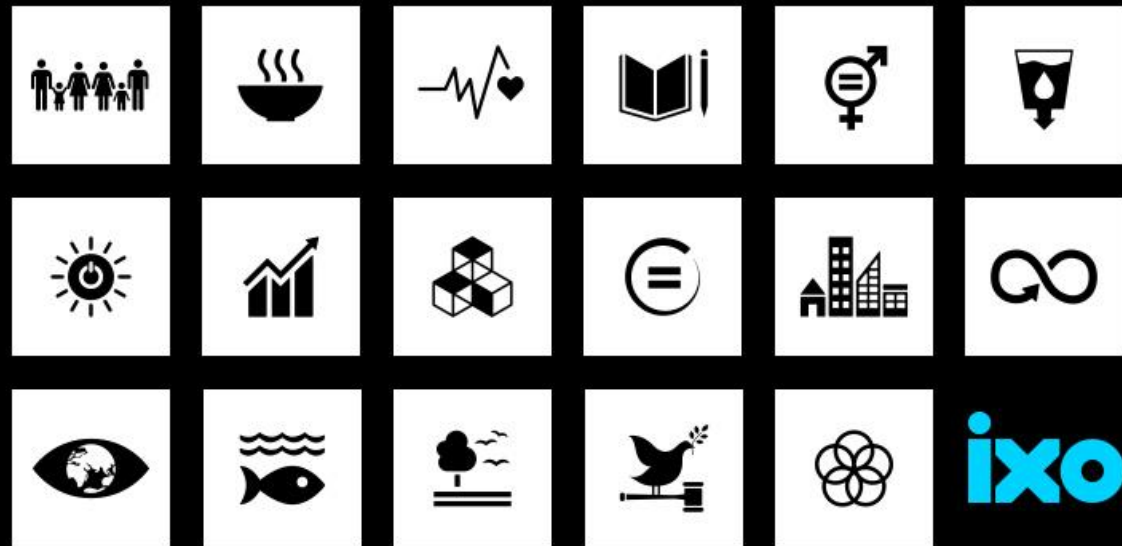


HEALTH^x



CONNECT

Join the Movement



Count what matters. Value what counts.

info@ixo.foundation

joyce@ixo.foundation



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/ixonetwork



/ixofoundation



/ixofoundation



/r/ixo



/ixo_blog



@ixo_impact





Socialsuite

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Seeking Expressions of Interest

**Five Organisation to Pilot
Socialsuite + IXO: Blockchain for Social Impact**

