



2021

IN REVIEW

Content



From the Chair of the Board Stephen Curran, Chair Board of Trustees	3
Financial Report Line Kofoed, Treasurer	4
Technical Report Stephen Curran, Vice-chair	7
Stewards	9
Governance Sankarshan Mukhopadhyay, Chair Governance Framework Working Group	10
Task Forces & Working Groups	12

From the Chair of the Board

Transition to independence

celebrating 5 years



After the changes of 2020, 2021 was for the Sovrin Foundation a year of stability. The Board's focus in 2021 was put towards creating both a stable (well, rock solid might be a better term) technical foundation and financial standing. It was a year of steady, solid progress made possible by the hard work of those involved in the Foundation. The conversations at Sovrin Board meetings were far more mundane than in the turbulent days of 2020 -- a welcome change!

But while stability is not the most exciting annual report theme from a Board Chair, stability in the case of Sovrin means a foundation for growth as an important utility in a world moving rapidly to SSI.

2021 was the year that awareness and understanding of digital credentials hit the mainstream. Proof of vaccination credentials were issued by organizations around the world, held by individuals and verified when needed. While such solutions gave a glimpse of the possibilities, the rapidly deployed but minimally functional proof of vaccination implementations are a far cry from what is really possible with SSI. We're excited that the Sovrin Foundation continues to be a key enabler in unlocking those possibilities.

While we continued to have technical stability (100% uptime for the year!), the Sovrin Foundation Board of Trustees worked hard in considering how to achieve financial sustainability. That involved both paring expenses to a minimum, and looking at the Foundation's key metrics to determine a viable economic model. In August 2021, the Sovrin Foundation announced a number of changes to the economic model that are designed to better meet the requirements outlined in the Sovrin Governance Framework. We look forward in 2022 to applying the economic model to enable the important role of Sovrin as a utility supporting our mission Identity for All.



Stephen Curran

**Trustee
Chair**

Trustees

- Stephen Curran
- Andre Kudra
- Philippe Page
- Nichola Hickman (till March)
- Marta Piekarska-Geater
- Lohan Spies
- Chris Raczkowski (till August)
- Jamie Stirling
- Sankarshan Mukhopadhyay
- Line Kofoed (from May)
- Daniel Hardman (from June)
- Darrell O'Donnell (from June)

Transition to independence

2021 Financial Report

In 2021 Sovrin Foundation started celebrations of "Sovrin 5 Years": September 15th 2016 marks the incorporation date of the Sovrin Foundation. 5 years as a pioneer advocating self-sovereign identity in an upcoming identity industry.

Sovrin the pioneer was for a long time carried by larger sponsors of code, development, thought leadership and financial support.

When the Sovrin Foundation in 2020 was temporarily paralyzed by a project which left the Foundation in debt, a transition period was announced to bring the Foundation back on its feet. A "Minimum Viable Foundation" model was introduced with a volunteer driven foundation. Costs having been minimized, would the Sovrin Foundation be able to count on continued support from the community? And would it be enough to secure the Sovrin MainNet?

It turned out that there was indeed a strong and extremely dedicated community of Stewards that kept running their nodes to the highest availability of 100%. The Foundation was indeed able to fund professional support and maintenance and the Trustees did keep the day to day administration going.

In the SSI space, the market in the meantime started to develop. Already in 2020 adoption of SSI had started reaching some live production level, and in 2021 the Sovrin MainNet transactions revenue grew 450% to \$76'000. A sustainable model for financing the public utility started to emerge.

A previous tiered membership sponsorship plan seemed to suggest a correlation between sponsorship and influence within the Foundation. This "paid influence" was deemed an unintended dependency of the Foundation of its sponsors. Following board level discussions and brainstorming sessions, comparing experiences from previous membership programs, in Mid June 2021 it was decided to establish a revenue model that "sustainably supports the continuous basic operation of the Sovrin Foundation with uninterrupted availability of the Sovrin networks at its core".



Line Kofoed

Trustee

Treasurer



An Economic Model: the utility generates revenue to pay its own way

Wanting to budget not only for minimum operating costs but also to cover upgrades and eventually repayment of debt, the Board of Trustees mandated the Finance Committee to investigate the possibilities of an economic model that would support this long term sustainability.

Looking at the use of the three parts of the Network: BuilderNet, StagingNet and MainNet, it was obvious and a pleasure to see that a lot of activity was going on on the (then free) StagingNet. While it was agreed that offering advocacy and testing possibilities of SSI technology is part of the Sovrin mission, it was clear that the Foundation could not continue to provide this high quality service for free.

It was therefore decided to incorporate StagingNet in the revenue model while simultaneously advancing adoption by asking for a reduced contribution of 10% compared to MainNet. A StagingNet Endorser DID fee was introduced at \$500 per 6 months.

The previous annual membership fee of \$5,600 with ledger write access was changed into a MainNet Endorser DID annual fee of \$5,000. In recognition of the valuable contribution from Stewards, it was decided to provide each Steward with one free MainNet DID.

Enforcement of the existing policy would help ensure that each net was used for the intended use: development, pre-production and production.

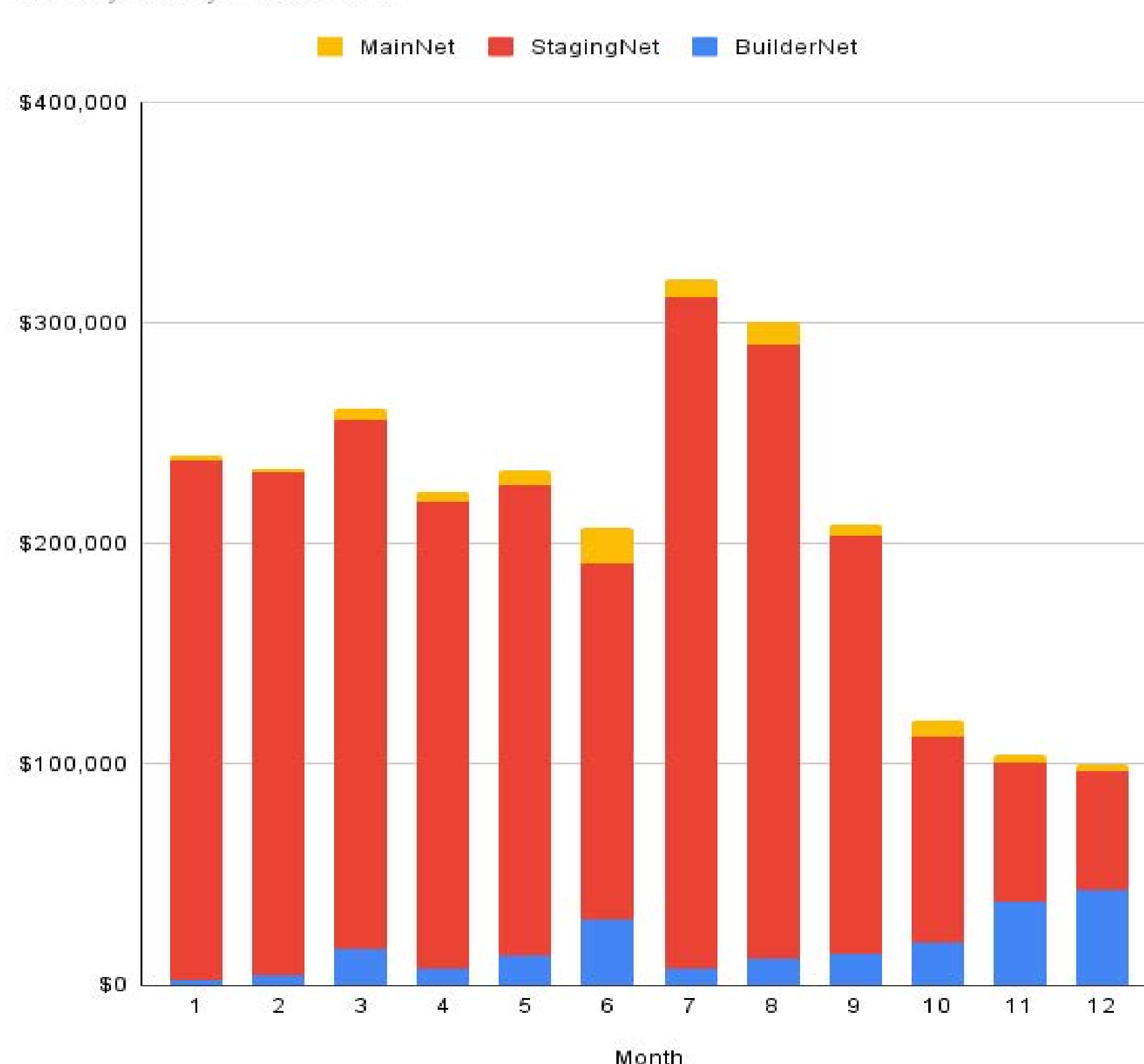
The procedural changes were introduced August 17th and implemented by September 16th. Existing endorsers were granted a grace period of 6 months in order to adjust their pricing and business models and adapt behavior to comply with the enforced policy.

The changes brought many rich discussions in the community of Sovrin participants: Stewards, Transaction Endorsers, Transaction Authors, as well as the governing body members from the Board of Trustees, Steward Council, Technical Governance Board and the Governance Framework Working Group.

Finance Committee

- **Philippe Page Chair Jan-Sep 2021**
- **Line Kofoed Chair from Sep 2021**
- **Andre Kudra, member**
- **Stephen Curran, member**

MainNet, StagingNet and BuilderNet
Monthly activity in value 2021



The Finance Committee continued to monitor the three nets in order to learn from the data.

Initially a decrease in StagingNet and MainNet usage was detected in favor of BuilderNet, but Q1 of 2022 has shown an increase in total usage, total value and number of writes.

Following community discussions, some adjustments were made to accommodate easy continued access.

A Financial Plan: liberation of the Foundation of the 2 million debt and interest payments

The debt situation that was largely temporarily settled with forbearance agreements obviously also played an important role in 2021. A promissory note of \$500,000 was due in December 2021, and the Finance Committee was mandated to renegotiate the terms of the loan. An effort was made to obtain forgiveness of the 5% interest, as this accrued interest weighs heavily on the budget. Unfortunately the committee didn't reach forgiveness, but the note was changed from short to long term.

A Economic Disaster Loan obtained in Q2 2020 accrues 2,75% interest and is repayable within 30 years from November 2022.

For other debts, arrangements have been made according to which a reduction is available if repayment is completed in 2022.

As the large debt endangers the sustainability of the Foundation and prevents governing bodies from seeking grants for necessary work, it is deemed necessary to, in order of priority,

- 1) refinance or rid the Foundation of the \$500,000 loan and the terms
- 2) refinance or rid the Foundation of other debt

The Finance Committee has therefore advised the Board of Trustees to start crowdfunding campaigns in order to reach settlement and become debt free by year end 2022.

As another part of the future plans for funding, the Finance Committee has been mandated by the Board of Trustees to investigate a construction for a Sovrin Network-of-Networks.

The plans for independence, making the utility self-financing and liberating it of externalities, may seem ambitious. They are however necessary and intended as an outreach to a strongly funded and profiting market to chip in and share the economic and reputational value of SSI with Sovrin while making good use of the utility to test, develop and advance SSI in a manner that secures Identity for All.

SOVRIN FOUNDATION

STATEMENT OF SUPPORT AND EXPENSE

FOR THE YEARS ENDED DECEMBER 31, 2021 AND

2020(DOLLARS IN THOUSANDS)

	2021	2020
Corporate contributions:		
Contributions	1	420
SBA grant	0	10
Other income	0	6
Ledger write fees	76	17
Ledger write access	17	0
Discounts given	(3)	0
Total support and revenue	US\$ 91	US\$ 453
Costs and Expenses		
Payroll	0	358
Outside contractors	51	78
Legal	4	387
Travel and conferences	1	15
Operating costs	47	57
Interest	31	30
Facilities and equipment	0	42
Total cost and expense	134	967
Excess (deficit) of support and revenue over expense	(US\$ 43)	(US\$ 514)
Debt forgiveness	0	324
Net Income	(US\$ 43)	(US\$ 190)
Balance Sheets As of December 31, 2021 and 2020		
Cash	US\$ 26	US\$ 46
Pledges receivable	4	14
Security Deposit	0	0
Other investments	0	0
Total Assets	US\$ 30	US\$ 60
Accounts payable	US\$ 1	US\$ 0
Notes payable long term	2'010	1'510
Notes payable short term	0	500
Other liabilities	75	64
Total liabilities	2'086	2'074
Earned surplus (deficit)	(2'056)	(2'014)
Total liabilities and equity	US\$ 30	US\$ 60

Technical Report

The Sovrin Network and its Stewards



Stephen Curran

Trustee

Chair

Steward Qualification Committee

Chair:

- Stephen Curran

Members:

- Jamie Stirling
- Daniel Hardman
- Markus Sabadello
- Sankarshan Mukhopadhyay

Technical Governance Board

Chair:

- Chair in 2021: Daniel Hardman
-

Members:

- Jason Law
- Jan Camenisch
- Markus Sabadello
- Marta Geater-Piekarska
- Axel Nennker
- Steve McCown
- Avesta Hojjati
- Mike Bailey
- Stephen Curran
- Chris Eckl
- Sebastian Weidenbach
- Richard Esplin
- Maciej Jedrzejczyk

Sovrin Network and Steward 2021 highlights include:

MainNet

The Sovrin MainNet continues to provide a solid base utility layer for global SSI. In 2021, MainNet experienced no outages, meaning an up time of 100% for the year.

The network's automated monitoring continues to improve, making us immediately aware of any node outages, ensuring that our Network Operations team and the impacted Stewards could take any necessary actions. Huge thanks to the Sovrin Foundation Network Operations team led by Wade Barnes.

There were no network upgrades in 2021, which leads to our primary technical focus in 2021. Hyperledger Indy currently only supports the outdated Ubuntu 16.04, and an upgrade is needed to Ubuntu 20.04. This upgrade has been hampered by the need to unravel and replace a complex, aged continuous integration/continuous deployment (CI/CD) pipeline. This is necessary to make it possible (and easy) to test changes to the Indy software and underlying dependencies. This work is nearing completion, supported primarily by the Sovrin Foundation, BC Gov, esatus AG and the Institute for Internet Security.

In 2021, there were 21,554 transactions executed on MainNet, a huge 6x increase over the 3,547 transactions recorded in 2020, as organizations shift from proof of concept to production deployments.

StagingNet and BuilderNet

Like MainNet, Sovrin StagingNet and BuilderNet continue to be rock-solid, with no downtime in 2021 -- 100% uptime. From a network operations perspective, all of the networks are monitored in the same way, and responses to node outages are likewise handled in the same way.

Stewards

In 2021, the Sovrin Foundation added 4 new Steward nodes, while 4 Stewards turned off their nodes. At the end of 2021, Sovrin MainNet had 18 nodes, allowing for up to 5 concurrent node failures before losing write access, Staging has 14 nodes and BuilderNet 18 nodes, for an even 50 active nodes. Once the Ubuntu 20.04 version of Indy Node is available, the Network Operations team will adjust the location of some of the nodes to better balance the per network node counts.

Network-of-networks” Initiative

In September 2020, the Sovrin Foundation hosted a “network-of-networks” conference to encourage the seamless use of multiple Indy networks by SSI agents. The event was well attended and generated interest in creating a new “did:indy” DID Method. Work continued on that into 2021, and the new DID method is ready for implementation. As 2021 came to a close, concrete steps were taken to make “did:indy” a reality, enabling choice for organizations wanting to issue verifiable credentials based on Indy Networks.

Approved Stewards in 2021



Go [here](#) for a complete list of current Sovrin Stewards

New Stewards in 2021



Governance

Governance Framework V3 and Principles of SSI

In the Sovrin Governance Framework Working Group (SGF WG) the Chair and Co-Chair are from India and The Netherlands respectively. Our membership is drawn from a number of nations - The United States, Germany, South Africa, Canada, The United Kingdom among others.

The formal purpose of the SGF WG is documented in the charter wherein it is stated that "The purpose of the Governance Framework Working Group (GFWG) is to develop and revise the Sovrin Governance Framework (SGF) to serve as the business, legal, and technical policy foundation of Sovrin Infrastructure, including serving as the foundation for other domain-specific governance frameworks (DSGF)." The SGF WG provides a forum where new ideas around governance are discussed along with exploring the contextual alignment of the mission of "Identity for All" with the activities ongoing in the other WGs and Task Forces.

Highlights from 2021 include:

- Principles of SSI V2

The development and general availability of Principles of SSI v2.0 centered around the human and adopting a more rights based approach.

This new version addresses the issues raised around v1.0 and presents a more refined approach towards the Principles by establishing the logical collection of principles as well as elevating the significance and urgency of "Representation" as it links directly to the mission of the Sovrin Foundation.

The Working Group called a session at IIW in April 2021 and presented the human-centric grouping.



**Sankarshan
Mukhopadhyay**

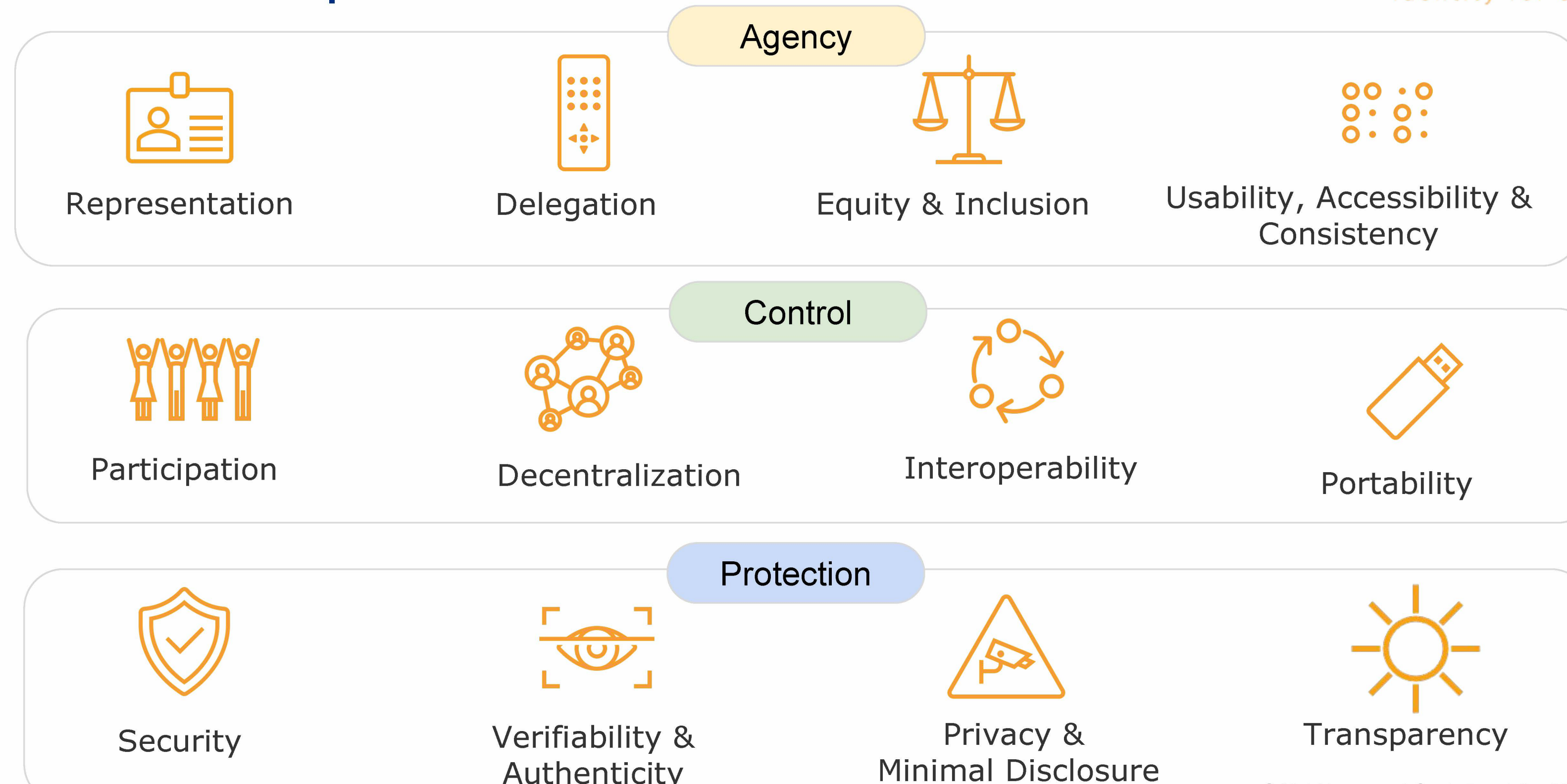
Chair,

**Sovrin Governance
Framework
Working Group**

Chairs:

- Drummond Reed (Until April 2021)
- Chris Raczkowski (Until September 2021)
- Sankarshan Mukhopadhyay
- Line Kofoed

12 Principles of SSI



- Sovrin {Utility | Ecosystem} Governance Framework

The preparation of the new governance framework at Sovrin - the Sovrin Utility Governance Framework v3.0 and the Sovrin Ecosystem Governance Framework v1.0 The SUGF builds on the existing v2.0 and provides a matrix which helps in identifying risks as well as policies which can address the risks. This enables a more explainable text of the governance framework especially in the context of designing best practices and compliance with audit requirements. The SEGF explores the necessary conditions for an ecosystem to sustain, thrive, grow and provide the necessary stimulus for a "network of network" design. It focuses specifically on a system-centric view which identifies the necessary and key objectives in a digital trust ecosystem such as Sovrin and how to enable governance that is transparent, democratic and aligned with the Principles of SSI. The SEGF is designed to be a "living document" which enables governance to be nimble and responsive to the changes in the operative environment - and take the necessary steps to continue to meet the objectives.

- Updates to the Sovrin Glossary

Enabling additional terms which relate to the concept of "ecosystem" and especially "Sovrin Ecosystem". The Sovrin Glossary has been a heavily referenced set of terms being cited for many different domains such as Covid Credentials Initiative (CCI) etc. The living community version of the document is unique in that it receives a constant stream of feedback as well as expanded with the inclusion of new terms. The drafting of the SEGF (mentioned above) initiated a review of the Glossary as well as a collaborative community input cycle to the addition of new terms specific to digital trust ecosystems and Sovrin Ecosystem.

For details on participating on any of the SGFW Task Forces, please see the [Governance Framework](#) page on sovrin.org and scroll down to the section titled: "Participation in the Sovrin Governance Framework Working Group".

Compliance and Payments Task Force

The purpose of the CIFWG is to advance financial inclusion globally through the use of self-sovereign identity (SSI) and other innovations in regtech and fintech. Its objectives include advancing financial inclusion and modern financial crimes compliance practices into a rapidly evolving financial services ecosystem that will enable more secure and sustainable access for all.

Highlights from 2021 include:

- Advance Digital Identity White paper

The white paper explores the balance between identity structures and identity management and disclosures for financial access as they impact AML/FCC activities -- in particular those related to Know your Customer (KYC) and Customer Due Diligence (CDD) activities, customer information program (CIP) management and reporting (that implicates and shares sensitive personal identifying information (PII)). This paper is important to help develop best practices in identity management that promote financial inclusion.

- Updates to Rulebook

The CIFWG makes periodic updates to the Rulebook to reflect developments in the regulatory space. It is important because the Rulebook is meant to be a dynamic document that provides current guidance for new entrants to the financial services ecosystem.

- Promotion of Rulebook

The CIFWG has developed plans to promote the Rulebook to a broader audience and encourage adoption of key financial crimes compliance and security principles. It is important that the Rulebook is promoted so its utility as a resource can promote financial inclusion and broader ecosystem integrity.

- Publication of blogpost

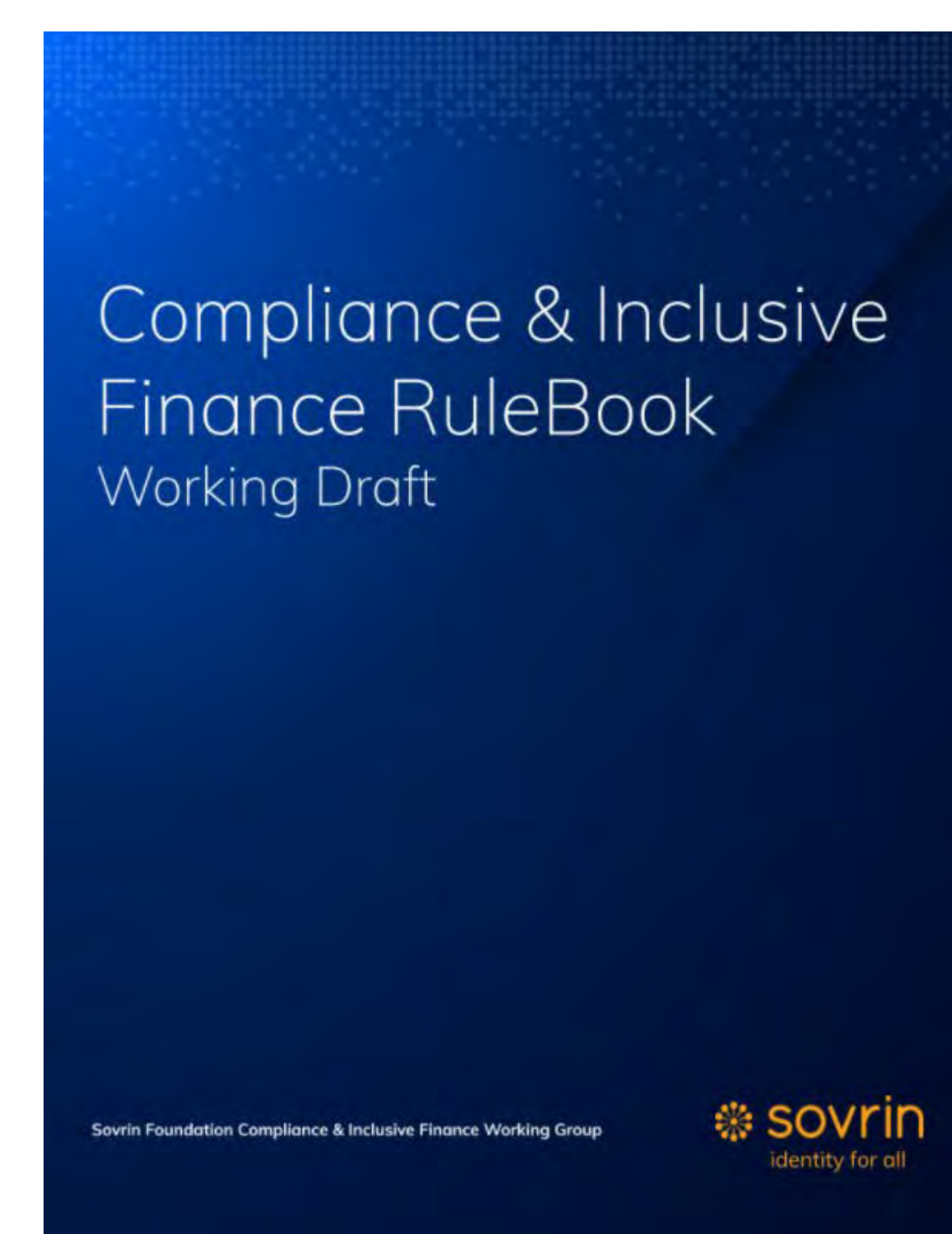
An open letter to Financial Crimes Enforcement

Chair:

- Amit Sharma
- Taryn Nelson

Members:

- From UK, US, Canada, Switzerland



SSI & IoT Working Group

The purpose of the SSI & IoT Working Group is to inform and influence technical standards, business strategies, and government policies addressing IoT systems such that they are consistent with and to the greatest extent possible implement the Principles of SSI. This aim is pursued with global partners in academia, industry, and government by: (1) Conducting generative research into the challenges and opportunities centered on digital identity and authority in connected, multiparty IoT systems, and (2) Identifying and developing value propositions, risk management frameworks, and policy considerations unique to SSI within these connected IoT systems.

Highlights from 2021 include:

- **Publishing of paper Outlining a self-sovereign approach to device onboarding**
- Worked on framing a proposal on moving a version of an Aries Agent into a resource constrained IoT device. The WG is working through what the base level requirements are and what elements of the default Aries Agent are optional. The ultimate objective is to make available an open source version of the Agent that can be built into a 'bare metal' or near 'bare metal' IoT ecosystem to reduce friction to adoption of decentralized identifiers (DIDs) and verifiable credentials in the IoT sector.

Chair:

- Michael Shea

Members:

- weekly call with members from Austria, Belgium, Brazil, Canada, Greece, Ireland, Switzerland, UK, and US

Steward Council

The purpose of the Steward Council is to oversee the operation, availability, and security of the Sovrin Public Ledger. It is also to give voice to the interests, concerns, and expertise of Sovrin Stewards in the activities of the Sovrin Foundation, the evolution of Sovrin Infrastructure, and in the roles and responsibilities of the Stewards themselves.

Highlights from 2021 include:

The SC continued its work in the three workstreams:

- The health workstream released its v1 of the monitoring tools focussing on the security of the network
- The technical workstream contributed towards the upgrade to Ubuntu 20.04.
- The community workstream discussed a reward model for stewards and developed ideas around a Co-op, an internal marketplace for stewards by stewards
- Feedback from stewards led to changes in the pricing model

Chairs:

- Lohan Spies, DIDx
- Alexander Blom, Bloqzone

Members:

- Riley Hughes, Trinsic
- Richard Esplin, Evernym
- Steven McCown, Anonymo Labs
- Xavier Vila, Validated ID (Until September 2021)
- Kevin Wittek, Institute for Internet Security (Until September 2021)
- Mike Vesey, idRamp (Until September 2021)
- Kirankalyan Kulkarni, AyanWorks Technology Solutions (Until September 2021)
- Sean Mouton (From September (2021)

Sovrin Guardianship Working Group

The purpose of the Guardianship Working group is to inform technical standards, business strategies and government policies regarding guardianship and digital identity. We ensure the guidance is consistent with the Principles of SSI, Identity for All, and meets the legislative requirements for the governing jurisdiction. This collaborative community is made up with global partners from academia, business and government.

Highlights from 2021 include:

- Continued work on two papers: Technical Requirements and implementation Guidelines for Guardianship.
- Collaborated with the Trust over IP Foundation and Good Health Pass Collaborative on adding a Guardianship addendum to the Good Health Pass Interoperability Blueprint, enabling the Blueprint to consider how to enable carers and their dependents to travel with digital travel and health passes. In addition, we have continued a series of published articles (on LinkedIn) describing how the work of the group can be applied to our working and social lives.

Chairs:

- **EMEA/America's:** Jamie Stirling
- **APAC:** John Phillips and
- Joe Spencer

Members:

Approximately 30 members from UK, Canada, Netherlands, Germany, Australia, US

Each committee meets monthly with 4-10 in attendance.

I4A Council

Highlights from 2021 include:

- **Develeoping a Theory of change**

The I4A Council has been developing a Theory of Change to enable delivery of the Identity for All mission,

- **Spotlight sessions**

In each of our Council meetings from community members who are developing SSI application ecosystems for peripheral communities or humanitarian use cases. We heard from Kiva, Tykn, and Yoma. Dr. Karen Elliot, Senior Lecturer in Enterprise/Innovation (FinTech), from Newcastle University, UK talked about how to aggregate, consolidate and evolve verified credentials for vulnerable or marginalised groups to drive inclusion toward an equitable digital society.

- We have been working on the 'Potential Harms of Digital ID & I4A', which has included discussion in the group and then a session at IIW called "Power, Politics, Hamlet & Harms".

Chairs:

- Nicky Hickman
- Darrell O'Donnell

