

ITU Workshop

TRAIN & Regi-TRUST

From isolated trust frameworks to interoperable trust ecosystems

Isaac Henderson, Fraunhofer IAO

Interoperability as current trust challenge

Introduction

-  **ETSI Trust Lists**
EU / eIDAS ecosystems
-  **UK DVS Framework**
Digital Verification Services
-  **Japan Digital Agency**
mDL & wallet ecosystems
-  **CA / Browser Forum**
PKI trust governance
-  **National & Sectoral Verifier Registries**
Different governance models



All these systems work well at providing trust inside their own domains

The current challenge lays across domains

How can a verifier in one governance domain evaluate credentials, issuers, verifiers or reader from another?

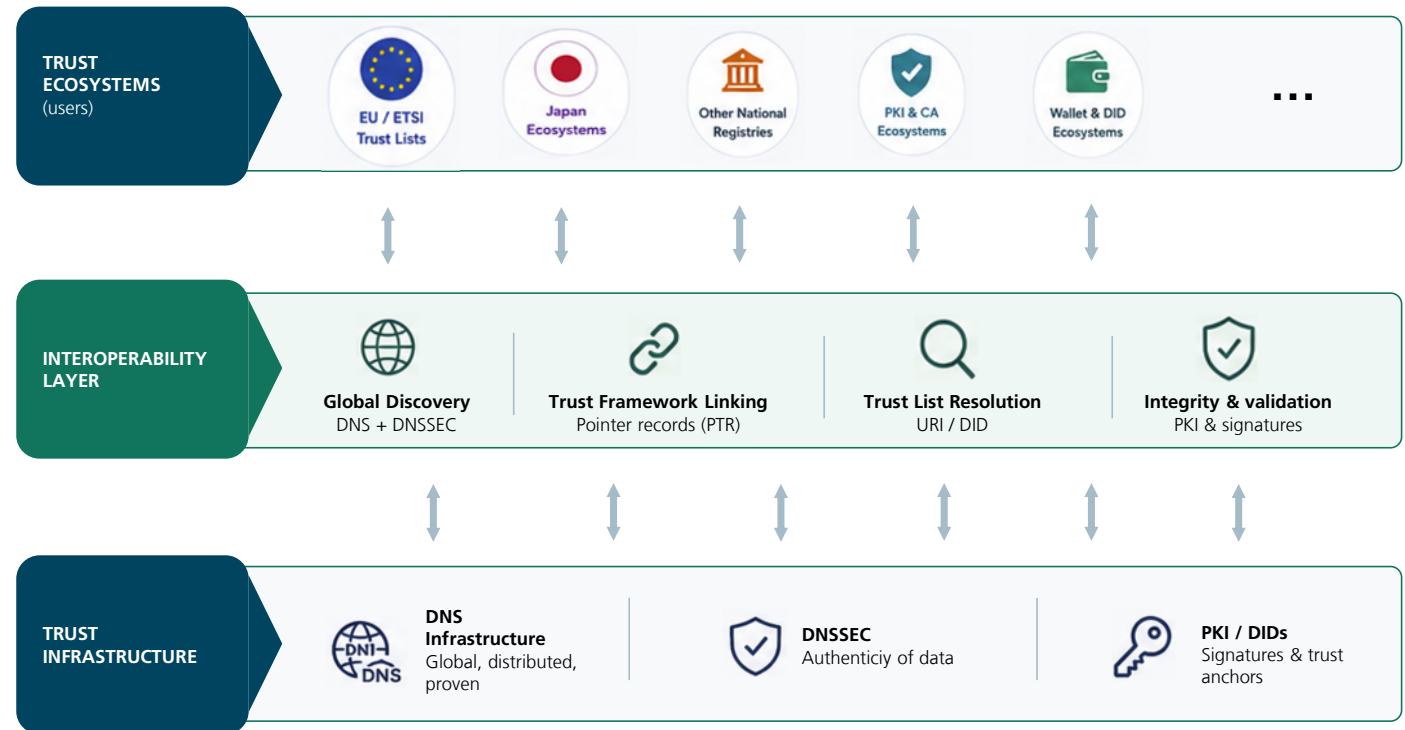
TRAIN as trust interoperability layer



The Internet already solved global discovery

TRAIN is the interoperability layer between trust frameworks with different underlying identity technology

- Discovery at global scale**
Using DNS + DNSSEC
- Sovereign by design**
Each framework maintains its own governance and policies
- Technology agnostic**
Supports PKI, DID, VC
- Open source & open standard approach**
No vendor lock-in



Regi-TRUST to enable digital trust and equality

UNDP

“Network of networks”

WHAT IS REGI-TRUST

A reference implementation of the **GDHCN**. It operationalizes a global network of interoperable health credential issuers across countries and regions.

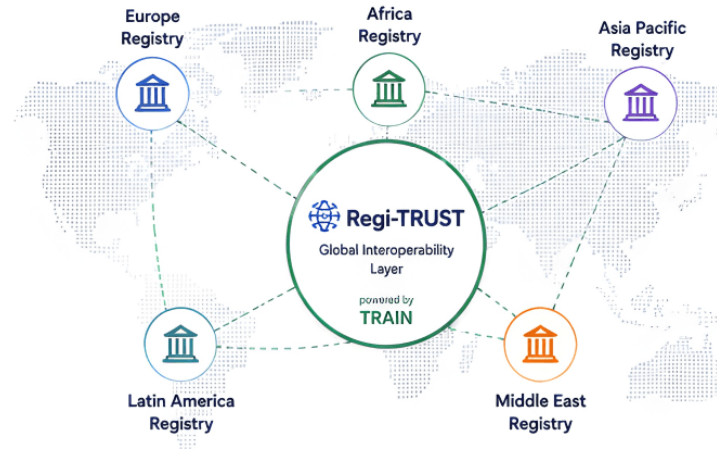
Sovereignty

Each country or region operates its own registry of Trusted Service Providers in a sovereign manner.

Interoperability

Verifiers and relying parties can verify credentials and issuers across borders irrespective of their identity technology.

Built on open standards and open-source infrastructure



Regi-TRUST connects national and regional issuer registries to enable cross-border trust for digital credentials, while preserving sovereignty and local governance.

HOW IT WORKS

1. WHO's secretariat (GDHCN ecosystem operator) onboards countries and regions.
2. Each onboarded federation publishes and manages its own issuers Trust List (Trusted service providers)
3. TRAIN enables verifiers the discovery of issuers and verification of certificates trust across federations and countries using DNS + PKI.
4. No central authority or intermediaries. Full sovereignty. Global interoperability.

Regi-TRUST currently explores globally interoperable verifier registries using federated trust infrastructure.

* GDHCN has currently 82 participants. Regi-TRUST implemented the trust domain [IPS for Pilgrimage](#).

TRAIN in other initiatives

UNDP



Gaia-X Federation Services



Federated trust across sovereign ecosystems

TRAIN integrated into Gaia-X Federation Services to support decentralized trust management across federations

Regi-TRUST



Global digital health certificate network interoperability layer

Regi-TRUST implemented globally interoperable issuer registries using federated trust infrastructure. Extension to verifiers being explored

Decentralized ecosystems (Cheqd and beyond)



Interoperable with decentralized identity ecosystems

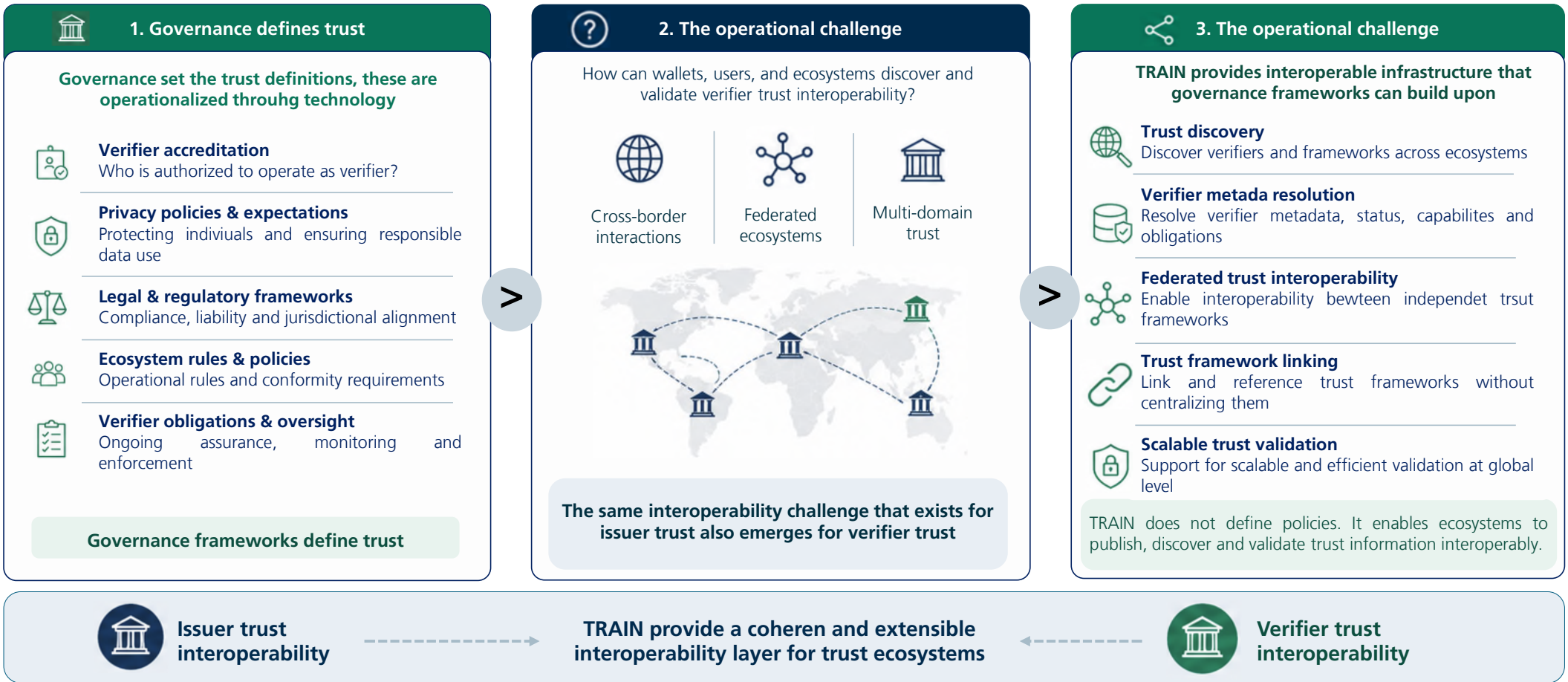
Compatible with DIDs, W3C Verifiable credentials and decentralized trust infrastructures



Implementation in different ecosystem. No centralization. Interoperability and sovereignty by design

Operationalizing trustworthy verifier ecosystems

TRAIN extends interoperable trust from issuers to verifiers



Contact

Isaac Henderson
Fraunhofer IAO
isaac-henderson.johnson-jeyakumar@iao.fraunhofer.de

Fraunhofer-Institut für Arbeitswirtschaft und Organisation IAO
Nobelstr. 12
70569 Stuttgart, Germany
www.iao.fraunhofer.de