

Track 2 – Service & Tool Support Onboarding Presentation

Martin Pilka, Kai Meinke





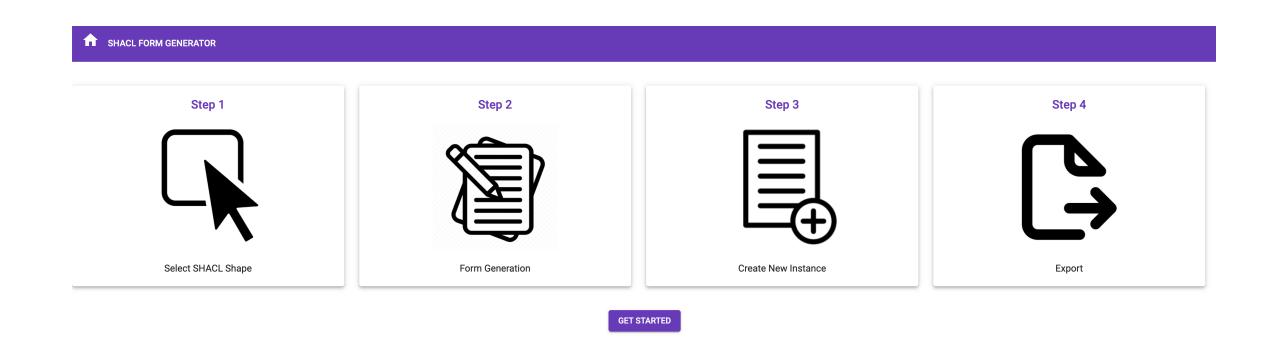
SD Toolkit Demonstration

Johannes Theissen-Lipp

01 – Self-Description Toolkit Demonstration



 Demonstrate the Self-Description Creation and Validation UI (currently under development)







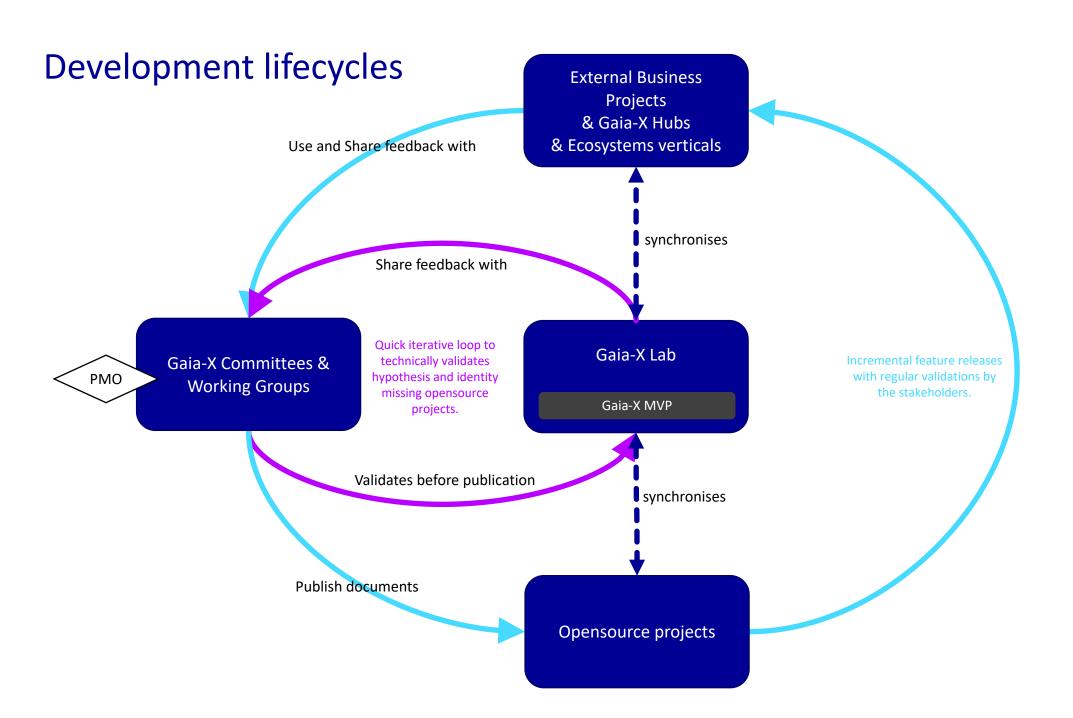
Gaia-X Lab Demonstration
Trust Framework

Kai Meinke

02 - Gaia-X Lab Demonstration Trust Framework



- Introduction to the work of the Gaia-X Lab and relation to the Gaia-X Trust &
 Compliance Framework and working groups.
- Demonstration of Trust & Compliance workflow from anchoring and issuance of Gaia-X
 participant credentials to verification of verifiable presentations
- Using SSI & OIDC4VP/SIOPv2 and DID:WEB to issue, hold an verify Gaia-X participant
 Credentials
- Demonstration of the Gaia-X Registry

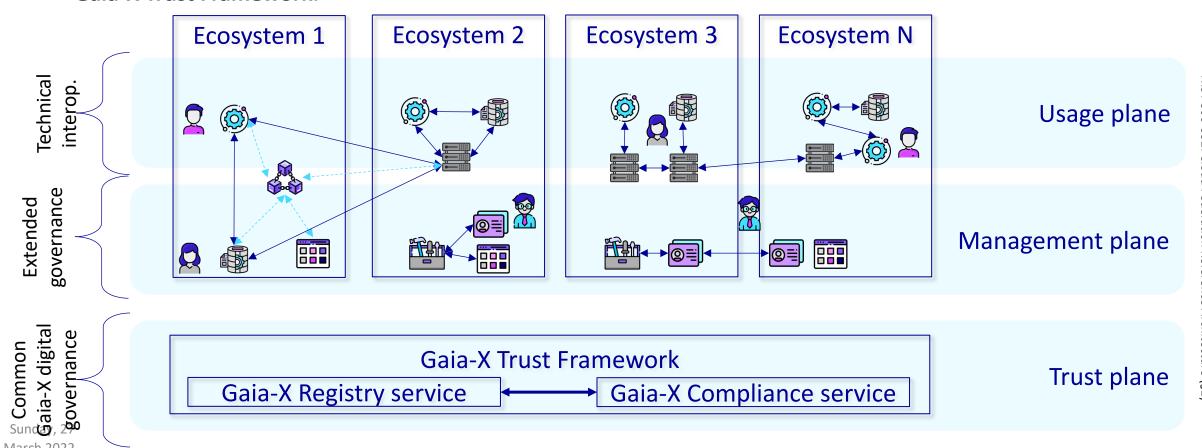


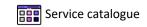
gaia-x

One Gaia-X Ecosystem, federating interoperable autonomous ecosystems.



Gaia-X Ecosystem: the virtual set of Participants, Service Offerings, Resources fulfilling the requirements of the
 Gaia-X Trust Framework.

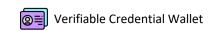












Gaia-X Lab Onboarding Demonstrator



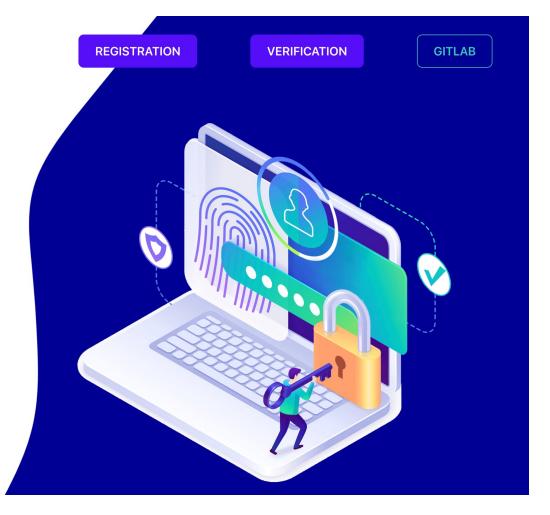
Gaia-X Lab

Onboarding Portal

This web app demonstrates how SSI could be used to issue Gaia-X participation credentials in a way that is cryptographically secure, privacy-respecting, and machine-verifiable.

REGISTER CREDENTIAL

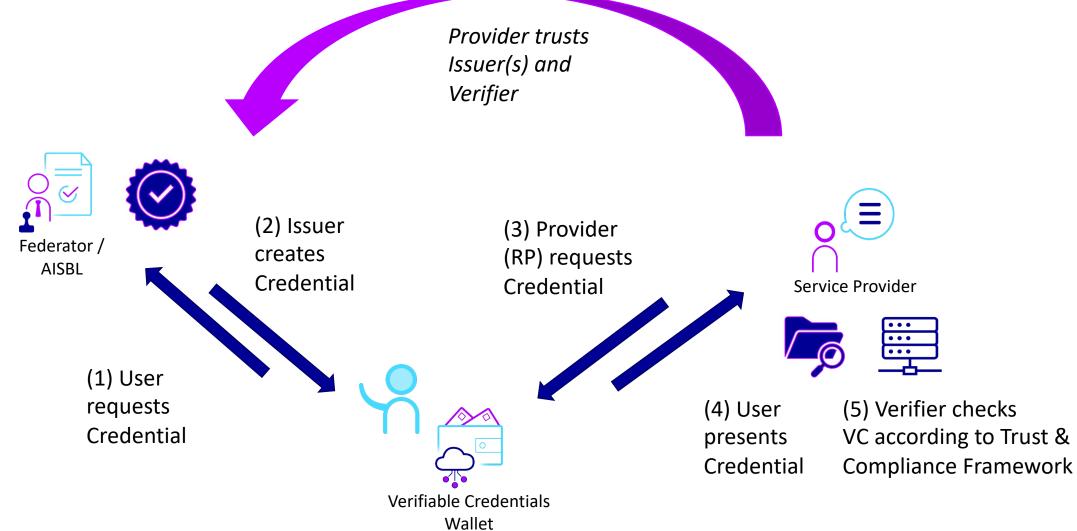
VERIFY CREDENTIAL



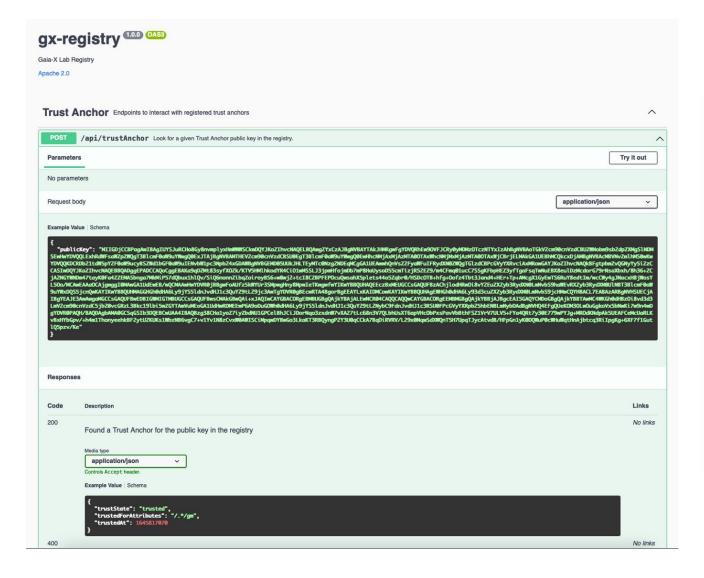
Demonstrator: https://onboarding-portal.lab.gaia-x.eu/ Repositories: https://gaia-x.atlassian.net/browse/LAB

Summary – Triangle of Trust





Gaia-X Lab Onboarding Demonstrator





3. List of defined trust anchors

| Name | Defined as |
|-------------|---|
| State | The Trust Service Providers (TSP) must be a state validated identity issuer. - For participant, if the legalAddress.country is in EEA, the TSP must be eiDAS compliant. - Until end of 2022 Q1, to ease the onboarding and adoption this framework DV SSL can also be used. - Gaia-X association is also a valid TSP for Gaia-X association members. |
| eiDAS | Issuers of Qualified Certificate for Electronic Signature as defined in eIDAS Regulation (EU) No 910/2014 (homepage: https://esignature.ec.europa.eu/efda/tl-browser/#/screen/home) (machine: https://ec.europa.eu/tools/lotl/eu-lotl.xml) |
| DV SSL | Domain Validated (DV) Secure Sockets Layer (SSL) certificate issuers are considered to be temporarily valid Trust Service Providers. (homepage: https://wiki.mozilla.org/CA/Included_Certificates) (machine: https://ccadb-public.secure.force.com/mozilla/IncludedCACertificateReportPEMCSV) |
| Gaia-X | To be defined after 2022Q1. |
| EDPB CoC | List of Code of Conduct approved by the EDBP (homepage: https://edpb.europa.eu/our-work-tools/documents/our-documents_fr?f%5B0%5D=all_publication_type%3A61&f%5B1%5D=all_topics%3A125) |
| gleif | List of registered LEI issuers. (homepage: https://www.gleif.org/en/about-lei/get-an-lei-find-lei-issuing-organizations) (machine: https://api.gleif.org/api/v1/registration-authorities) |



Gaia-X Lab Deployment of Issuer, Wallet and Verifier

Albert Peci, Moritz Kirstein

03 - Deployment of Issuer, Wallet and Verifier



Session: Guidance & Deployment of necessary components (verifier, wallet, issuer) using Kubernetes for issuance and verification of credentials using OIDC4VP/SIOPv2

Goals:

- Deploy the demonstration cloud wallet
- Deploy the demonstration issuer component
- Deploy the demonstration verifier components
- Using your Kubernetes infrastructure for issuance and verification of credentials





Utilize Hyperledger Aries for SD-Trust Issuance

David Suba, Martin Pilka, Matej Feder

04 - Utilize Hyperledger Aries for SD-Trust Issuance



■ Session: Create an easy to use CLI tool that interacts with components of open-source Verifiable Credential framework - Hyperledger Aries Cloud Agent and allows issuing, storing and verifying credentials for Self-Descriptions.

Goals:

- Create tool that hides the complexity of its usage behind simple CLI that provides necessary actions for issuance and validation of credentials for SD.
- Allows the 'dynamic' import of SD templates in JSON-LD format.





Theo Dimitrakos, Bithin Alangot, Ali Hariri, Amjad Ibrahim



Session: Build a Credential Bridge middleware that can do a semantically correct transformation of credentials and federation protocols into a decentralized identity fabric.

Goals:

 Creating a credential bridge middleware that enables a cost-efficient bridging between different types of credentials in a federation.



- Context: To support both legacy identity federation and decentralized identities (DID)
 such as SSI [Gaia-X IAM Framework v 1.3 Section 5.1]
 - The federated trust model follows a layered approach. The participants rely on selected identity networks for mutual authentication and trust establishment at participant layer (SSI recommended for interoperability) and use their existing identity system at the principal layer.
 - For example, the participants bootstrap with a federated identity system based on OpenID connect/OAuth for their principals and use DID and DID Documents to identify itself within the federation.

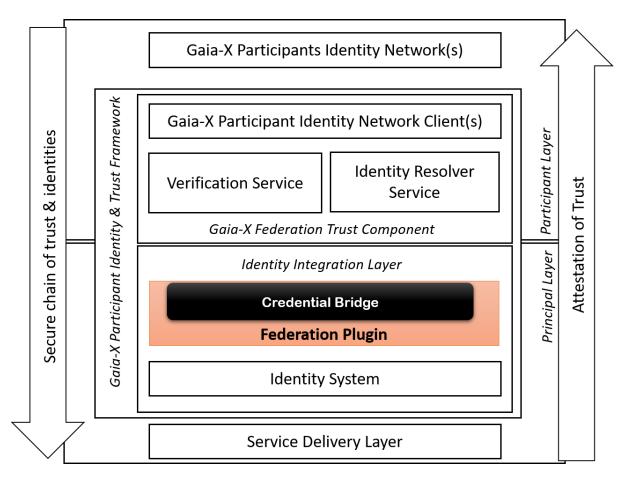


- **Benefit**: Enables a cost-efficient and dynamic transformation of credentials conforming to the policies and rules of a federation.
 - The participants continue using their deployed identity system internally for their principals and still able to transact with other participants that use a different identity system.
- **Implementation Mechanism**: Credential Bridge use Usage Control (UCS+) framework as an implementation mechanism that helps to define rules for transforming credentials within a federation.



Input: Verifiable Credentials (VC) or federated identity authentication tokens

Output: Verifiable Presentation



Gaia-X Federated Trust Model



Creating VC Templates from JSON Schema

Phil Potisk, Severin Stampler

06 - Creating VC Template from JSON Templates



Session: How to create templates for Verifiable Credentials, based on the SD Shapes /
 SD Tools

– Goals:

- Allows the 'dynamic' import of SD templates in JSON-LD format.
- Give an outlook how to build a bridge from Self-Description Generators to the issuance of Verifiable Credentials, based on VC Templates in accordance with the Gaia-X Trust Framework.





Any questions or remarks?

Sunday, 27 March 2022





Enjoy the Gaia-X Hackathon #3

Sunday, 27 March 2022