

# DVS4U

## Die VC Plattform für Kantone und Gemeinden

E-Collecting Hackathon, 31. Oktober 2025



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

KoK  
Cdc

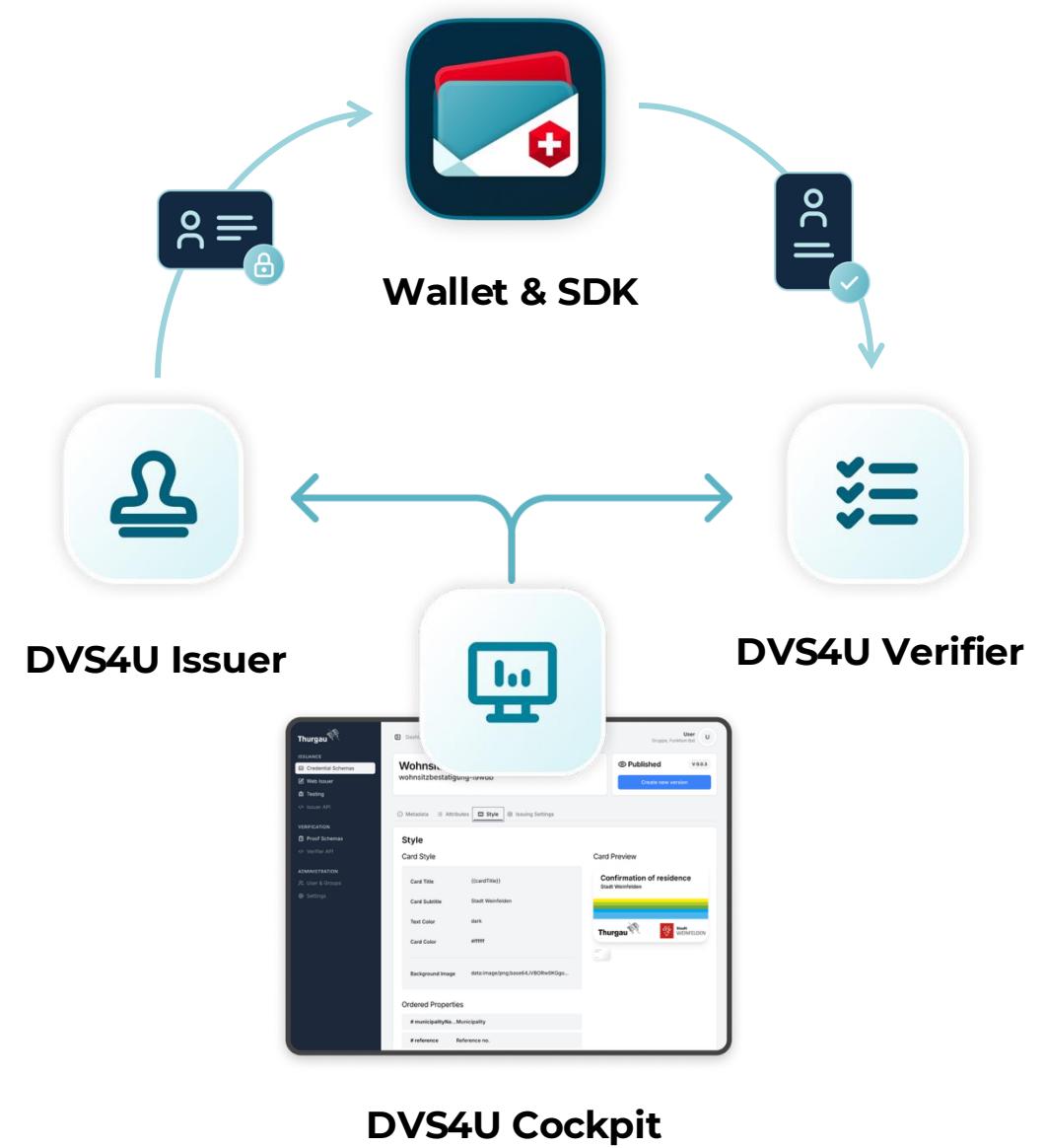
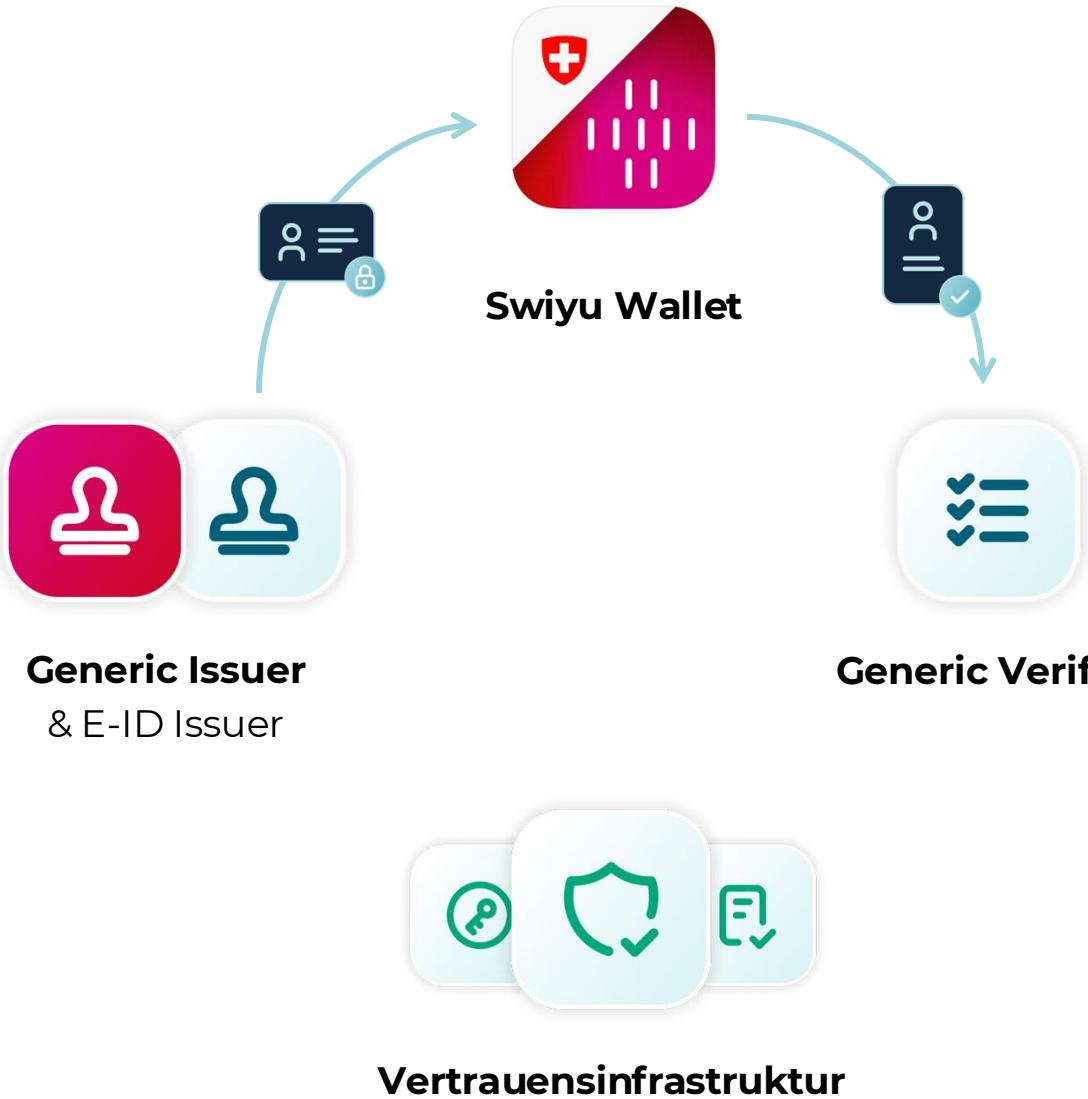
KONFERENZ DER KANTONSREGIERUNGEN  
CONFERENCE DES GOUVERNEMENTS CANTONNAUX  
CONFERENZA DEI GOVERNI CANTONALI  
CONFERENZA DA LAS REGENZAS CHANTUNALAS

Schweizerischer Städteverband  
Union des villes suisses  
Associazione dei Comuni Svizzeri  
Associaziun da las Viscnhanas Svizras



Schweizerischer Gemeindeverband  
Association des Communes Suisses  
Associazione dei Comuni Svizzeri  
Associaziun da las Viscnhanas Svizras

# Swiyu



# Interoperabilität

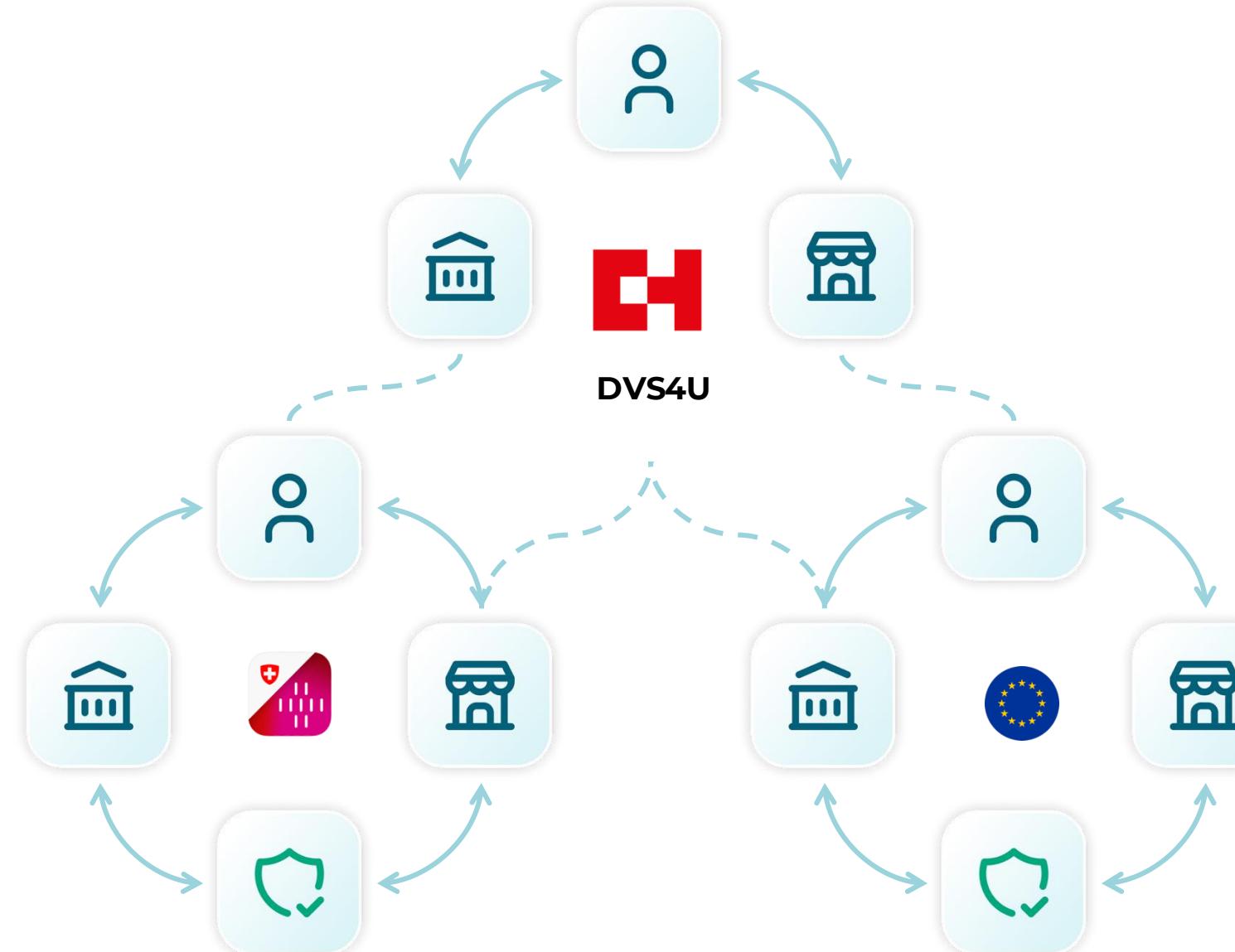
Stand heute

## Heidi Wallet

- ✓ Swiyu Issuer & Verifier
- ✓ DVS4U
- ✓ EUDI

## Swiyu Wallet

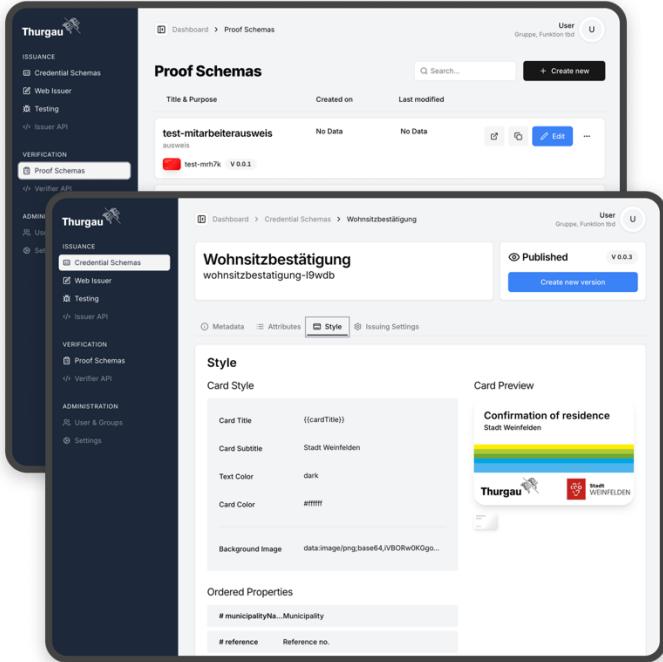
- ✓ Swiyu Issuer & Verifier
- DVS4U



DVS4U

# Was ist DVS4U?

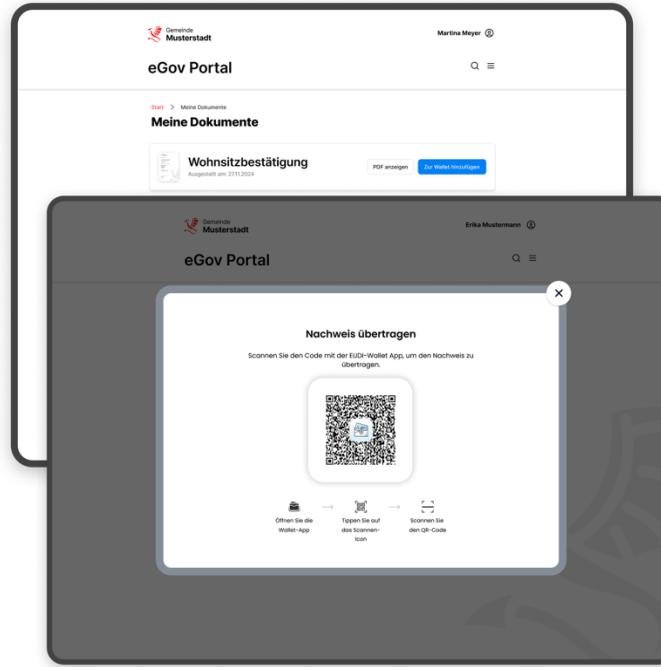
## BACKOFFICE



## Cockpit

Issuer & Verifier Services

## ISSUANCE + VERIFICATION



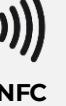
**Web Components / API**  
Integration into Systems

## HOLDER



## Heidi Wallet

Open Source Wallet/SDK

<b>OCA</b> Overlay Capture Layer	<b>Pre-Authorized Flow</b>	<b>BBS+</b>	<b>JWE</b>	<b>zkSnarks</b>	<b>Open Source Software (OSS)</b>	<b>App Links</b>	
<b>PAR</b> Pushed Authorization Request	<b>OpenID Federation</b>	<b>FROST</b>	<b>MPC</b>	<b>EdDSA</b>	<b>ZKP</b> Zero Knowledge Proofs	<b>Wallet SDK</b>	
<b>DPoP</b>	<b>x509 san_dns</b>	<b>Presentation during Issuance</b>			<b>ECDSA (NIST P256)</b>	<b>Native Technologies</b> (Swift, Kotlin, Rust)	
<b>PKCE</b>	<b>DIIP</b>	<b>OpenID 4 VCI / VP</b>			<b>ISO mDL</b>	<b>IETF SD-JWT</b>	
<b>DIF PEX</b>	<b>DCQL</b>	<b>Batch Credential Issuance</b>		<b>HEIDI</b>	 BLE	 NFC	
<b>Trust Protocol</b>	<b>Ephemeral Credentials</b>		<b>Device Binding</b>		<b>Secure Backup &amp; Recovery</b>	<b>Emergency PID</b>	
<b>RP</b> Authentication / Authorization	<b>Key / Wallet Attestation</b>	 <b>Strongbox</b>	 <b>TEE</b> Secure Enclave	 <b>Cloud HSM</b>	 <b>Software</b>	<b>EAA</b>	<b>PID</b>

# Backoffice

# Cockpit

The screenshot displays the Thurgau Backoffice Cockpit interface, specifically the Proof Schemas section. The left sidebar includes navigation for ISSUANCE (Credential Schemas, Web Issuer, Testing, Issuer API), VERIFICATION (Proof Schemas, Verifier API), and ADMINISTRATION (User & Groups, Settings). The main content area shows a list of Proof Schemas with columns for Title & Purpose, Created on, and Last modified. A search bar and a 'Create new' button are at the top right. A detailed view of a specific schema, 'Wohnsitzbestätigung', is shown on the right, including its title, subtitle, and style settings. The style settings panel shows card styles for 'Confirmation of residence' from 'Stadt Weinfelden', featuring the Thurgau logo and the city's name.

Thurgau

ISSUANCE

- Credential Schemas
- Web Issuer
- Testing
- </> Issuer API

VERIFICATION

- Proof Schemas
- </> Verifier API

ADMINISTRATION

- User & Groups
- Settings

Dashboard > Proof Schemas

Proof Schemas

Title & Purpose      Created on      Last modified

Search...      + Create new

Thurgau

ISSUANCE

- Credential Schemas
- Web Issuer

VERIFICATION

- Proof Schemas
- </> Verifier API

ADMINISTRATION

- User & Groups
- Settings

Dashboard > Credential Schemas > Wohnsitzbestätigung

Wohnsitzbestätigung  
wohnsitzbestätigung-l9wdb

Published v 0.0.3      Create new version

Metadata      Attributes      Style      Issuing Settings

Style

Card Style

Card Title	{{cardTitle}}
Card Subtitle	Stadt Weinfelden
Text Color	dark
Card Color	#ffffff

Background Image      data:image/png;base64,iVBORw0KGgo...

Card Preview

Confirmation of residence  
Stadt Weinfelden

Thurgau      Stadt WEINFELDEN

Ordered Properties

- # municipalityNameMunicipality
- # reference      Reference no.

## Cockpit

# Credential Schemas

- Schema Creator
- OCA Styling

The screenshot displays the Cockpit interface for managing credential schemas. On the left, a sidebar menu lists various organizational and technical components: ISSUANCE (with sub-options like Issuer, Testing, and Credential Schemas), VERIFICATION (Proof Schemas), STATIC FLOWS (Presentation During Issuance), DEVELOPER (Integrations, Playgrounds, API Docs), and ADMINISTRATION (Users, Settings). The main content area shows a navigation path: Dashboard > Credential Schemas > Wohnsitzbescheinigung Musterstadt. The page title is "Wohnsitzbescheinigung Musterstadt" with the identifier "wohnsitzbescheinigung-musterstadt-4zmln". A header indicates the user is Christian Flepp (flepp@ubique.ch) from CH. To the right, there is a "Published" status (v 1.0.0) and a "CREATE NEW VERSION" button. Below this, tabs for "Attributes", "Style" (which is selected), and "Issuing Settings" are visible. The "Style" section contains settings for "Card Style": Card Title ({{cardTitle}}), Card Subtitle ({{given\_name}} {{family\_name}}), Text Color (dark), and Card Color (#FFFFFF). It also includes a "Background Image" section featuring a watermark with the word "DEMO" and a logo for "Gemeinde Musterstadt". To the right, a "Card Preview" shows a sample card with the title "Wohnsitzbescheinigung", subtitle "Vorname Nachname", and the "Gemeinde Musterstadt" logo.

Cockpit

# Schema Templates

The screenshot shows the DVS VC Katalog cockpit interface. On the left, a sidebar menu for the organization "Thurgau" includes sections for Issuance (Credential Schemas, Issuer, Testing), Verification (Proof Schemas), Developer (Integrations, API Docs), and Administration (Users, Settings). The main content area displays a schema titled "Wohnsitzbestätigung" (wohnsitzbestaetigung-hslu-gkkib). The top navigation bar shows the path: Dashboard > Credential Schemas > Wohnsitzbestätigung. A user profile for "Christian Flepp" (flepp@ubique.ch) is visible on the right. The central part of the screen shows the "Style" tab for the "Card Style" of the schema. It includes fields for Card Title ("Wohnsitzbestätigung"), Card Subtitle ("Stadt Weinfelden"), Text Color ("Dark"), Card Color ("#ffffff"), and Background Image (with "Change image" and "REMOVE" buttons). To the right, a "Card Preview" shows a sample card with the title, subtitle, and logos for "Thurgau" and "Stadt WEINFELDEN". At the bottom, there are buttons for "Draft" (SAVE CHANGES and PUBLISH).

<https://github.com/UbiqueInnovation/dvs-vc-katalog-example>

Cockpit

# Proof Schemas

The screenshot displays the 'Proof Schemas' section of a cockpit interface. The top navigation bar shows 'Dashboard > Proof Schemas'. On the right, a user profile for 'Christian Flepp' (flepp@ubique.ch) is visible, along with a 'CH' flag icon. A search bar and a 'NEW PROOF SCHEMA' button are located at the top right. The main area is titled 'Proof Schemas' and lists five entries:

Title & Purpose	Created on	Last modified	Actions
<b>AFI Ausweis</b> Check afi-ausweis-nvdrw v 0.0.2	25.02.2025	25.02.2025	
<b>Demo</b> Demo	19.03.2025	19.03.2025	
<b>Kanton Thurgau</b> Mitarbeiterausweis mitarbeiterausweis-thurgau-j11g2 v 1.0.0	25.02.2025	25.02.2025	
<b>Request TKB Kundenkarte</b> Get Kundenkarte for Partizipationsschein tkb-kundenkarte-azcbp v 2.0.0	18.03.2025	18.03.2025	
<b>SBB GA</b> Wohnsitz prüfen wohnsitzbestaetigung-hslu-ont0j v 1.0.0	20.03.2025	20.03.2025	

The left side features a dark sidebar with the 'ORGANISATION Thurgau' logo at the top. Below it, the sidebar is organized into sections: ISSUANCE (Credential Schemas, Issuer, Testing), VERIFICATION (Proof Schemas, selected), DEVELOPER (Integrations, API Docs), and ADMINISTRATION (Users, Settings). The 'Proof Schemas' item in the sidebar is highlighted with a white background and rounded corners.

# Issuer Definitions

The screenshot shows the 'Issuer Definitions' page within a dark-themed cockpit interface. At the top right, a user profile for 'Christian Flepp' (flepp@ubique.ch) is visible, along with a 'CH' flag icon. A search bar and a 'ADD ISSUER DEFINITION' button are located at the top right of the main content area.

The left sidebar, titled 'SUPER ADMIN', includes links for 'Organisations', 'Extensions', and 'Issuer Definitions', with the latter being the active tab.

The main content area is titled 'Issuer Definitions' and lists eight entries, each with a small logo, the issuer name, and two buttons: 'RENEW CERTIFICATE' and 'EDIT' (represented by a pencil icon).

- ABCD
- Bundesamt
- Municipality of Musterstadt
- Heidi Demo
- Kanton Graubünden
- Kanton Thurgau
- Kanton Zürich
- Museum Musterstadt
- Thuraauer Kantonalbank

# Real world scenarios

To test the showcases visit

➤ [funke.ubique.ch](https://funke.ubique.ch)

Heidi EAA Issuance

## Showcases



**eGov Gemeinde  
Musterstadt**  
Pre-authorized code flow

> Start



**ABCD  
Mitgliedsausweis**  
Pre-authorized code flow  
with transaction code

> Start



**CAS Zertifikat**  
Authorization code flow

> Start



**Studierenden-  
ausweis**  
Authorization code flow

> Start



**Bibliothekskarte**  
Presentation during issuance

> Start



**Museumsticket**  
Zero knowledge proof

> Start

[Go to verifier](#)

# Issuance Flows

- ✓ Pre-authorized code flow

The image displays two screens illustrating the issuance flow. On the left, a web browser shows the "eGov Portal" interface for "Meine Dokumente". It lists three documents:

- Meldebescheinigung** (Issued on 27.11.2024) with buttons for "PDF anzeigen" and "Zur Wallet hinzufügen".
- Sonst ein Dokument** (Issued on 14.06.2021) with buttons for "PDF anzeigen" and "Zur Wallet hinzufügen".
- Ein anderes Dokument** (Issued on 14.06.2021) with buttons for "PDF anzeigen" and "Zur Wallet hinzufügen".

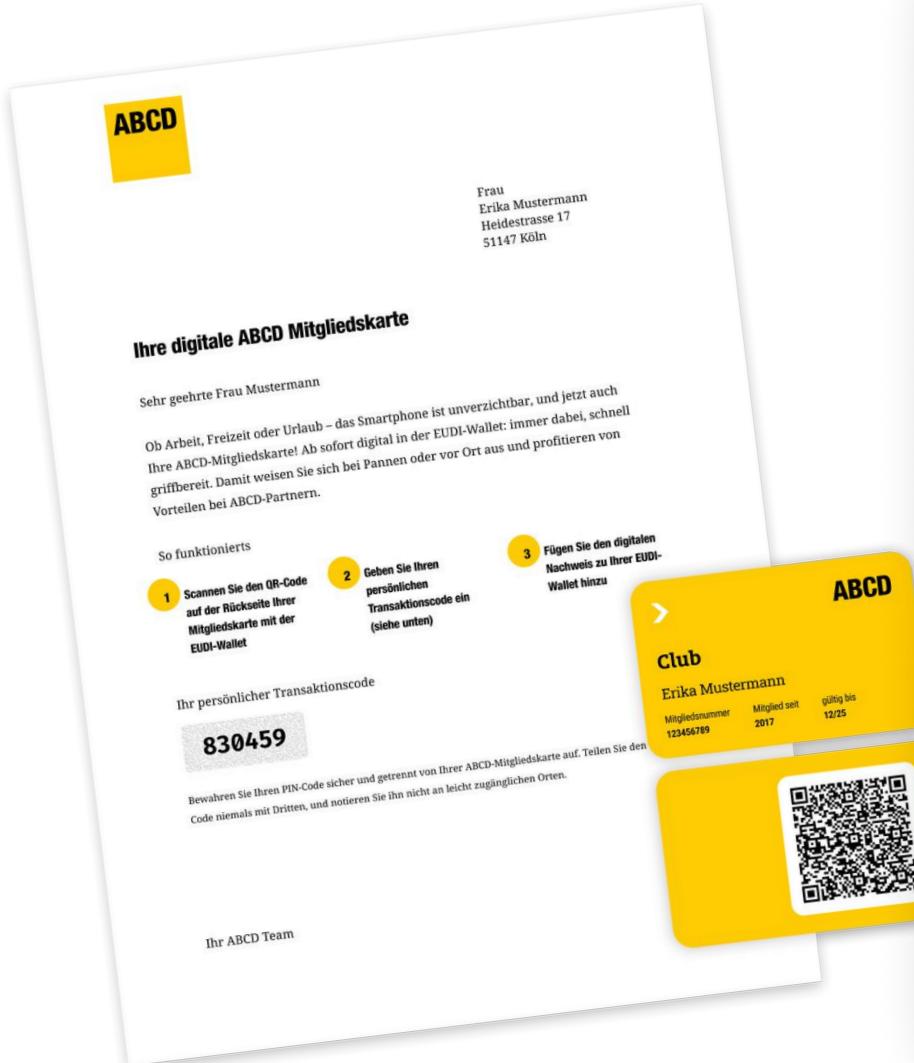
The top right corner of this screen shows a user profile for "Erika Mustermann". On the right, a mobile phone screen shows a detailed view of a "Meldebescheinigung" document. The document header includes "Gemeinde Musterstadt" and "Erika Mustermann". It features a large red logo of a person. Below the header, the document details are listed:

- Name, Vorname:** Mustermann Erika
- Geburtsdatum:** 12.08.1983
- Wohnsitz (PLZ, Ort):** 12345 Musterstadt
- Straße, Hausnummer:** Heidestraße 17
- Einzug am:** 01.07.2024
- Ausstellungsdatum und Uhrzeit:** 11.07.2024. 13:35

A circular QR code is located at the bottom right of the mobile screen.

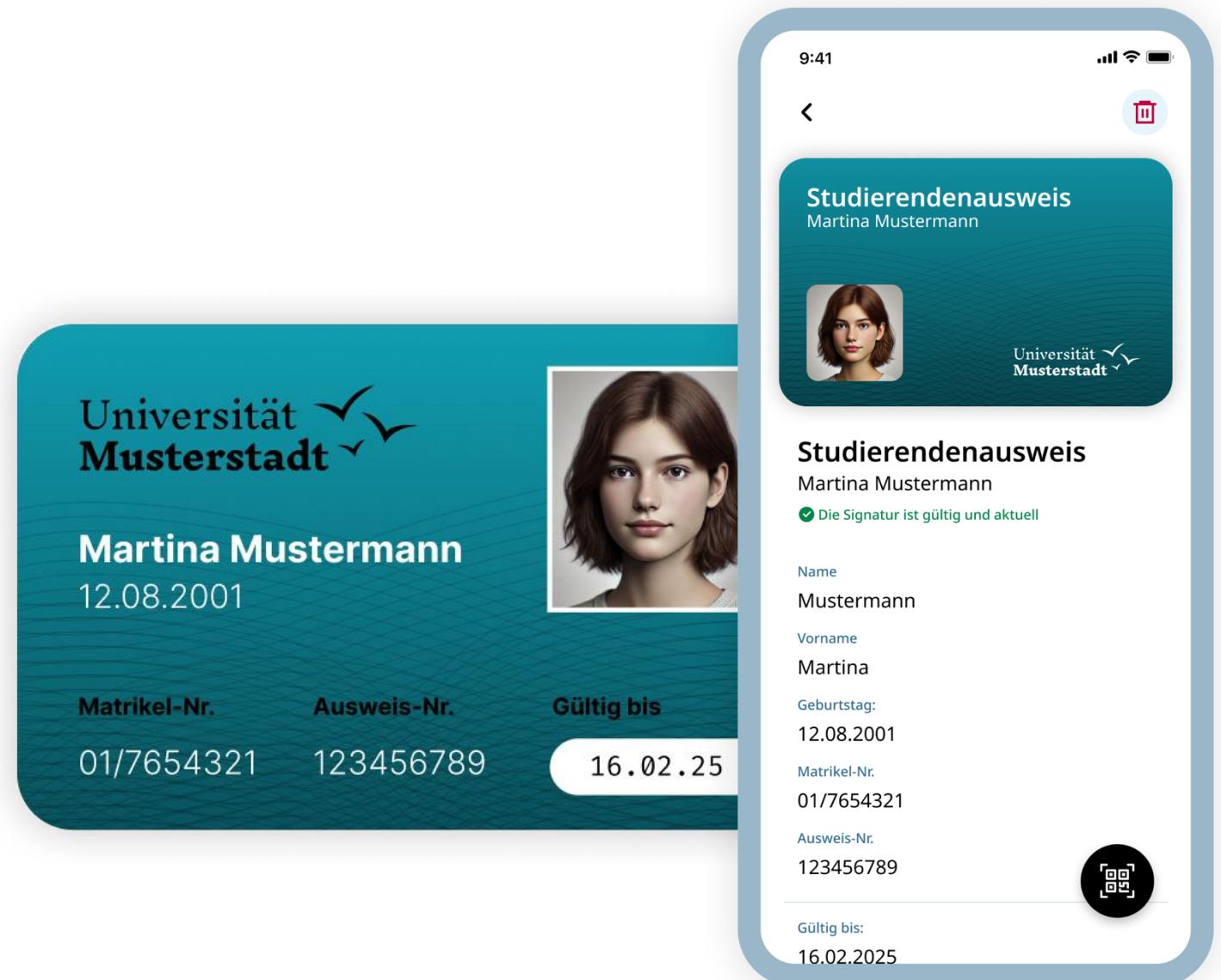
# Issuance Flows

- Pre-authorized code flow
- ✓ **Pre-authorized code flow with transaction code**

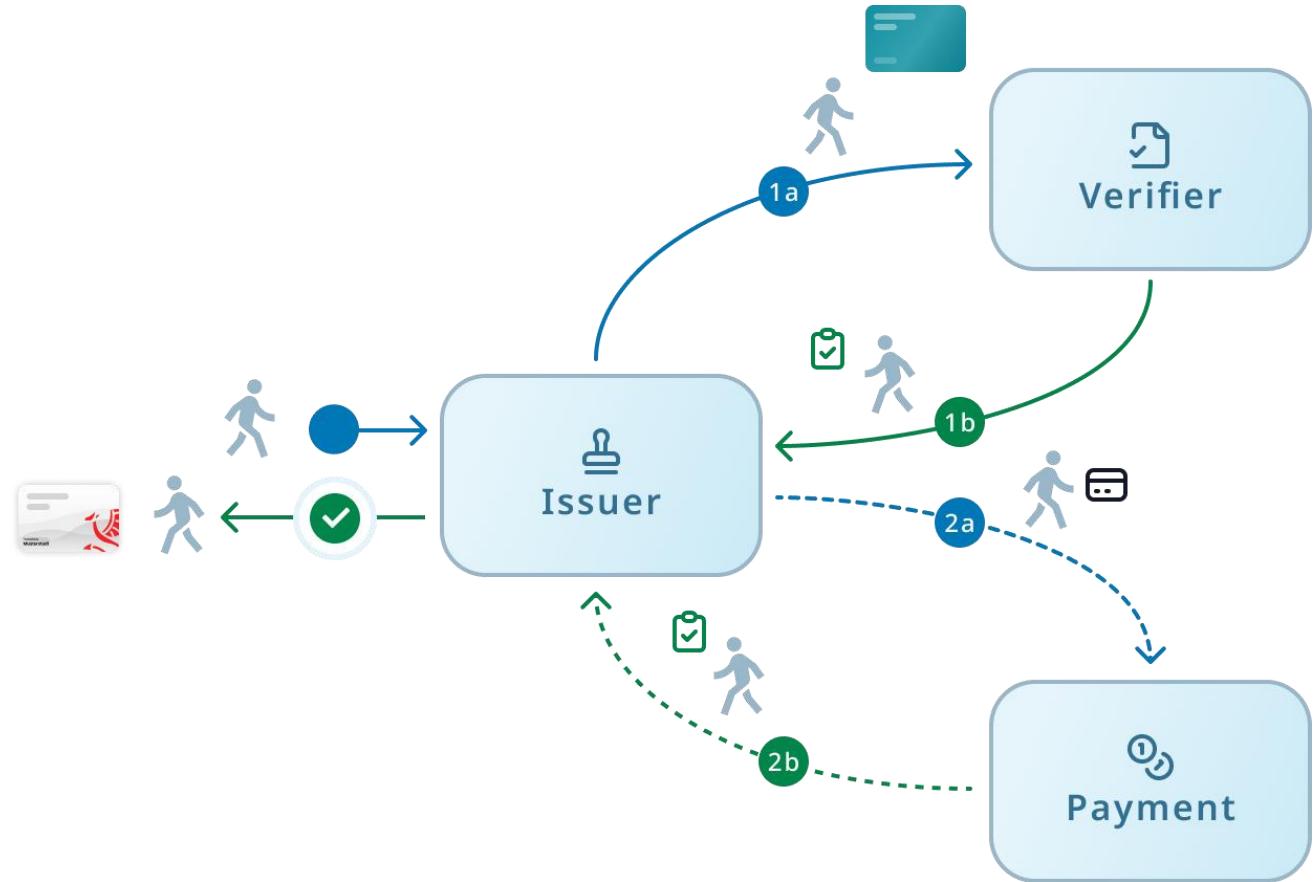


# Issuance Flows

- Pre-authorized code flow
- Pre-authorized code flow with transaction code
- ✓ **Authorization code flow**

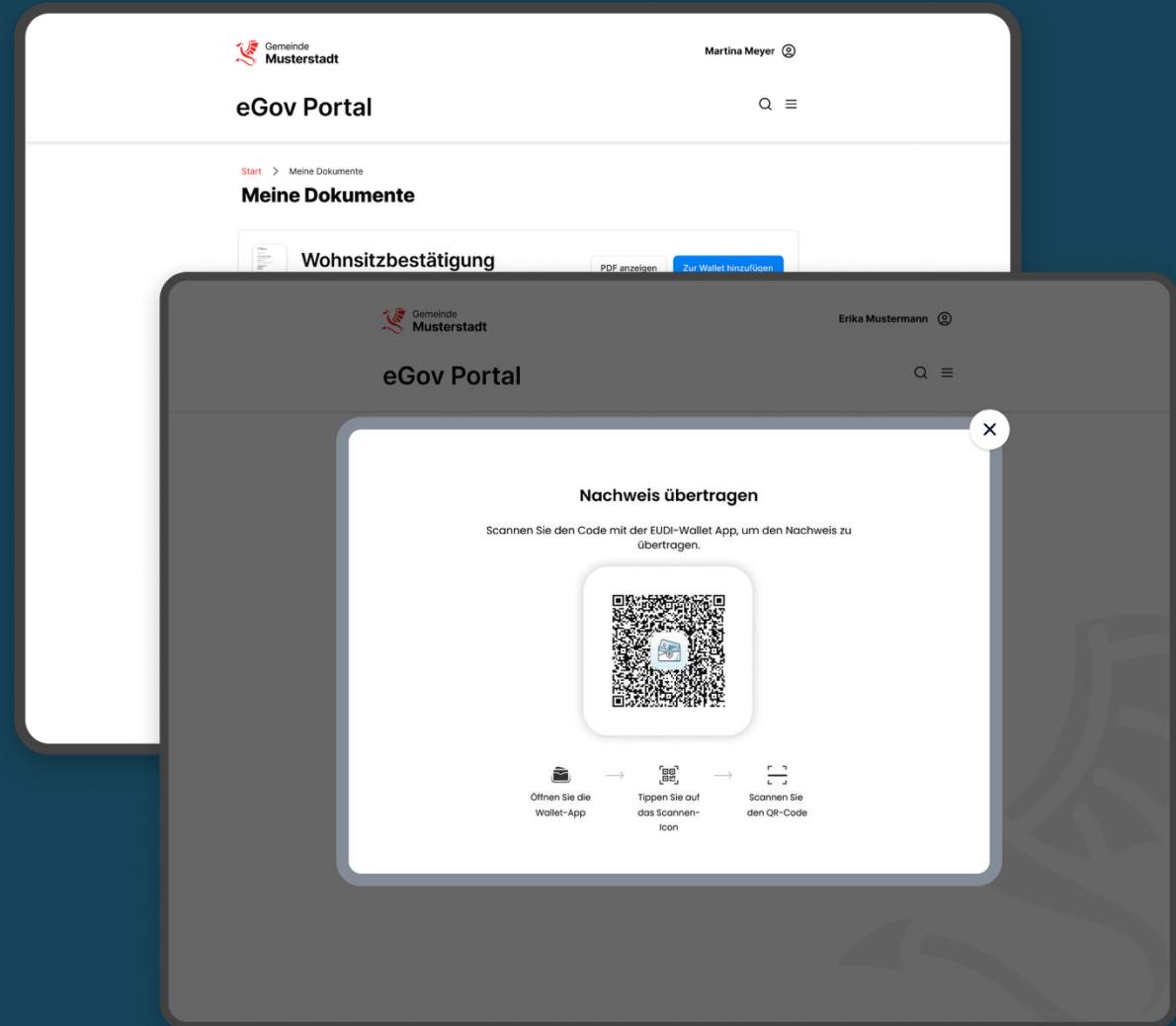


# Presentation during Issuance



**Issuance & Verification**

# Integrations & Web- Components



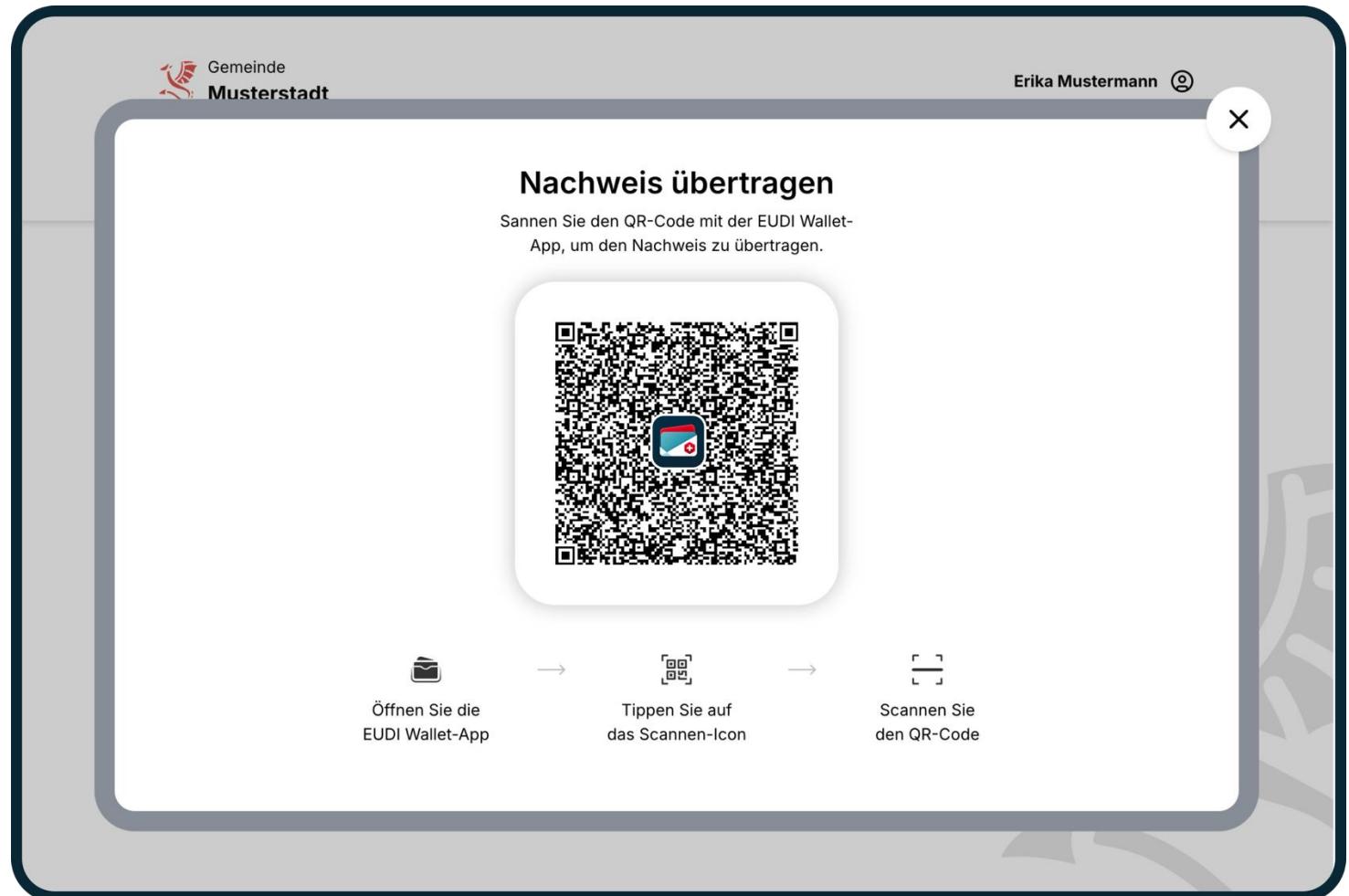
Cockpit

# Integrations

The screenshot shows the Heidi Demo Cockpit interface. On the left, a sidebar menu includes sections for ISSUANCE (Credential Schemas, Issuer, Testing), VERIFICATION (Proof Schemas), STATIC FLOWS (Presentation During Issuance), DEVELOPER (Integrations, Playgrounds, API Docs), and ADMINISTRATION (Users, Settings). The 'Integrations' option is highlighted. The main content area is titled 'Heidi Demo' and shows the 'API Key' section. It includes a placeholder for an API key and a note to add it to headers: 'Add to headers: Authorization: ApiKey <API\_KEY>'. Below this, a section titled '1. Obtain Token – Server to Server' provides instructions to use a specific request body for an API call, with a link to documentation. A code snippet for the request body is shown:

```
{  
  "action": "pre_auth_issuance",  
  "preAuthIssuanceData": {  
    "schemaIdentifier": {  
      "credentialIdentifier": "sana-ausweis-akqz2",  
      "version": "1.0.0"  
    },  
    "attributes": {  
      "dateOfBirth": {  
        "value": "<replace-with-value>",  
        "attributeType": "DATEOFBIRTH",  
        "attributeNameOverrides": {}  
      },  
      "firstname": {  
        "value": "<replace-with-value>",  
        "attributeType": "STRING",  
        "attributeNameOverrides": {}  
      },  
      "issuingDate": {  
        "value": "<replace-with-value>",  
        "attributeType": "DATE",  
        "attributeNameOverrides": {}  
      }  
    }  
}
```

# Web Components



Tools

# Rapid Prototyping

Rapid Prototyping

# Web Issuer

The screenshot displays the Web Issuer application interface, featuring a dark-themed sidebar on the left and a main content area on the right.

**Left Sidebar (Organisation: Heidi Demo):**

- ISSUANCE:**
  - Credential Schemas
    - Issuer** (selected)
    - Testing
- VERIFICATION:**
  - Proof Schemas
- STATIC FLOWS:**
  - Presentation During Issuance
- DEVELOPER:**
  - Integrations
  - Playgrounds
  - API Docs
- ADMINISTRATION:**
  - Users
  - Settings

**Main Content Area (Issuer Dashboard):**

Dashboard > Issuer

Christian Flepp  
flepp@ubique.ch CH

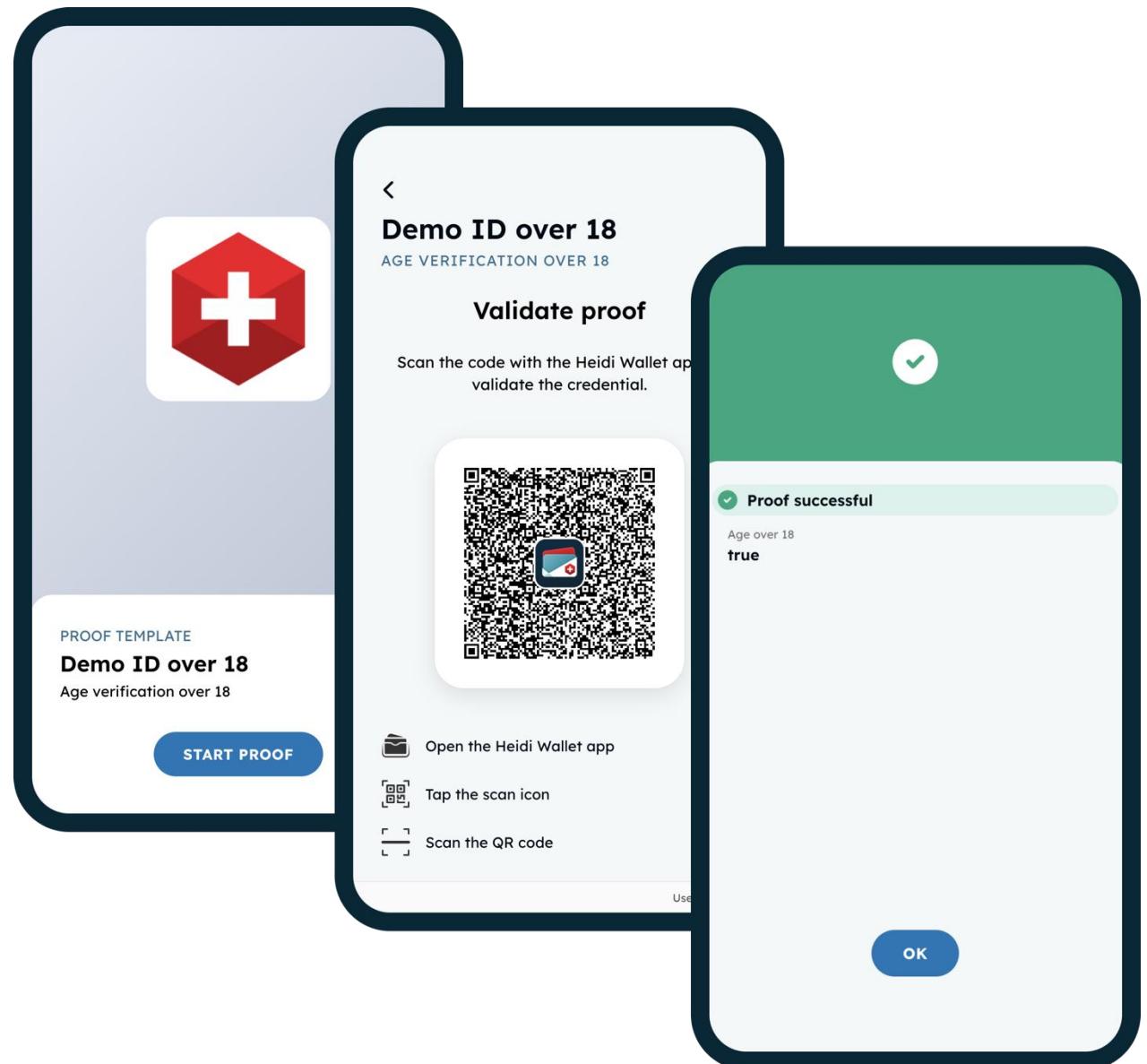
**Issuer**

Search... Latest versions Show all

Credential Schema	Version	Actions
Anglerpatent TG anglerpatent-tg-7mfcd	V 1.0.0	<b>ISSUE</b>
CAS Zertifikat Uni Musterstadt cas-zertifikat-uni-musterstadt-y99x1	V 1.0.0	<b>ISSUE</b>
Demo-ID demo-id-5rwxw	V 1.0.0	<b>ISSUE</b>
EC PID (ARF 1.9 SD-JWT only) ec-pid-arf-19-sd-jwt-only-l3uck	V 1.1.0	<b>ISSUE</b>
Fake Beta-ID fake-beta-id-9kh83	V 1.0.0	<b>ISSUE</b>
SAC Ausweis sac-ausweis-34d7z		<b>ISSUE</b>

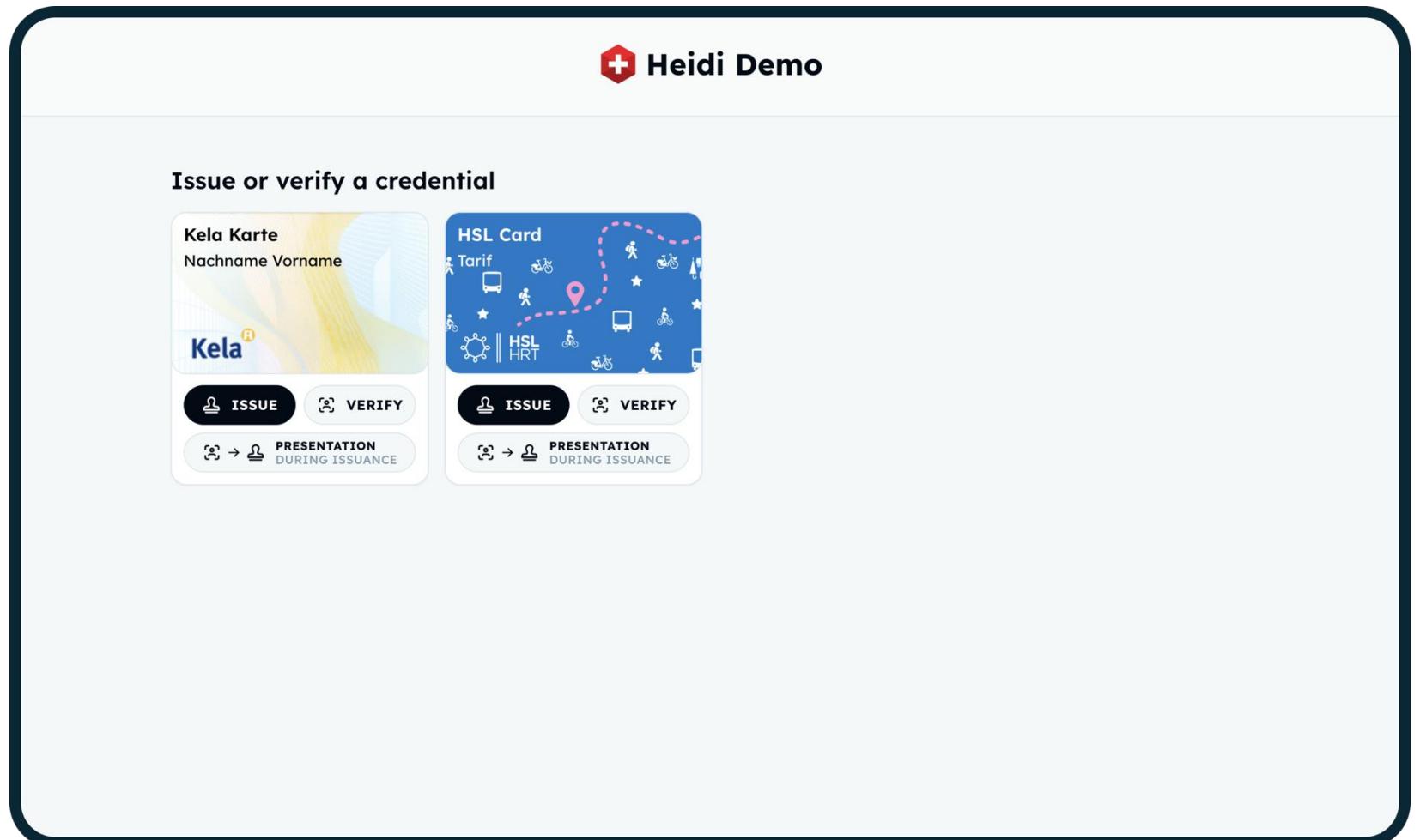
Rapid Prototyping

# Web Verifier

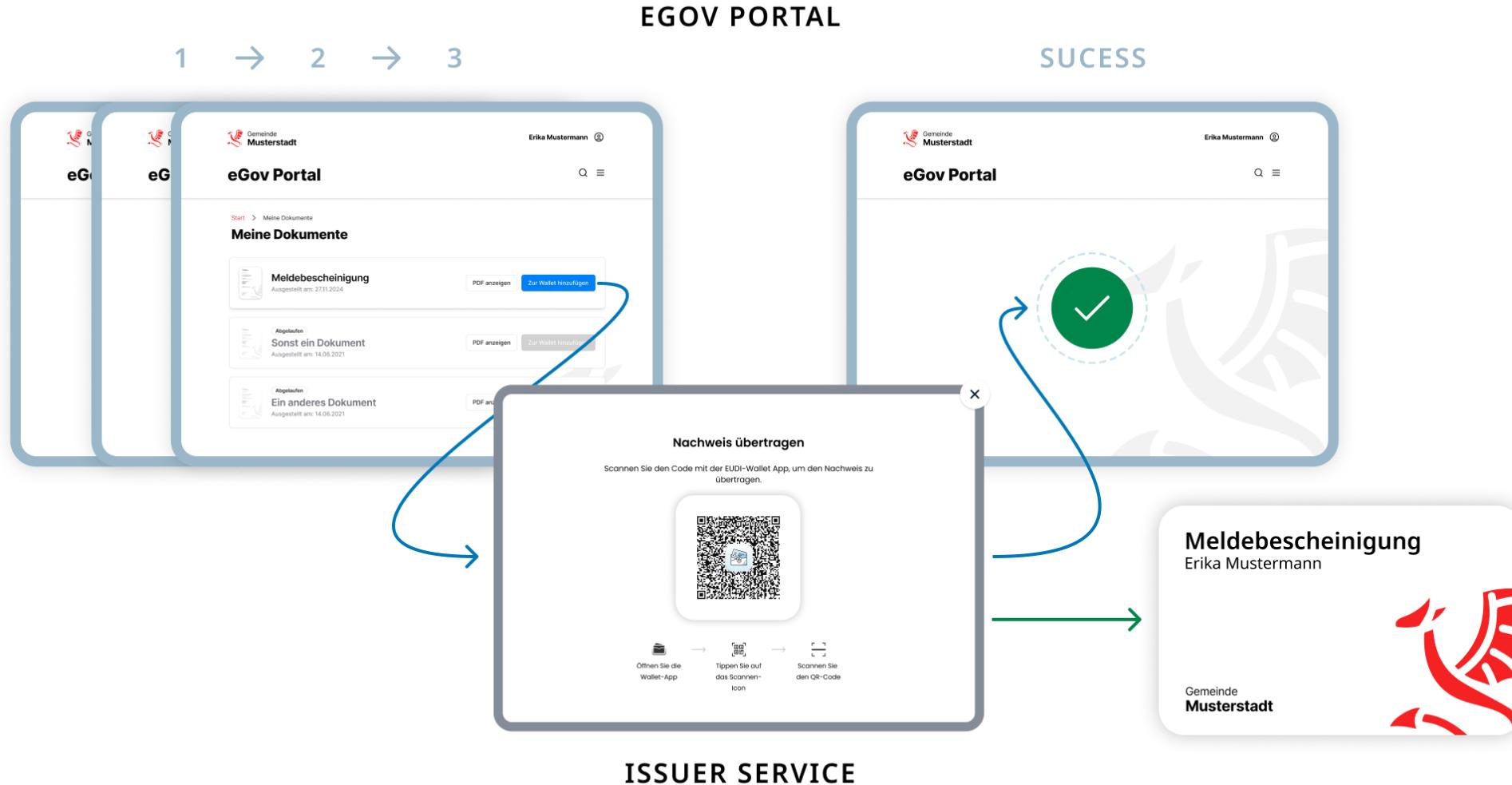


Cockpit

# Playgrounds



# Web Components



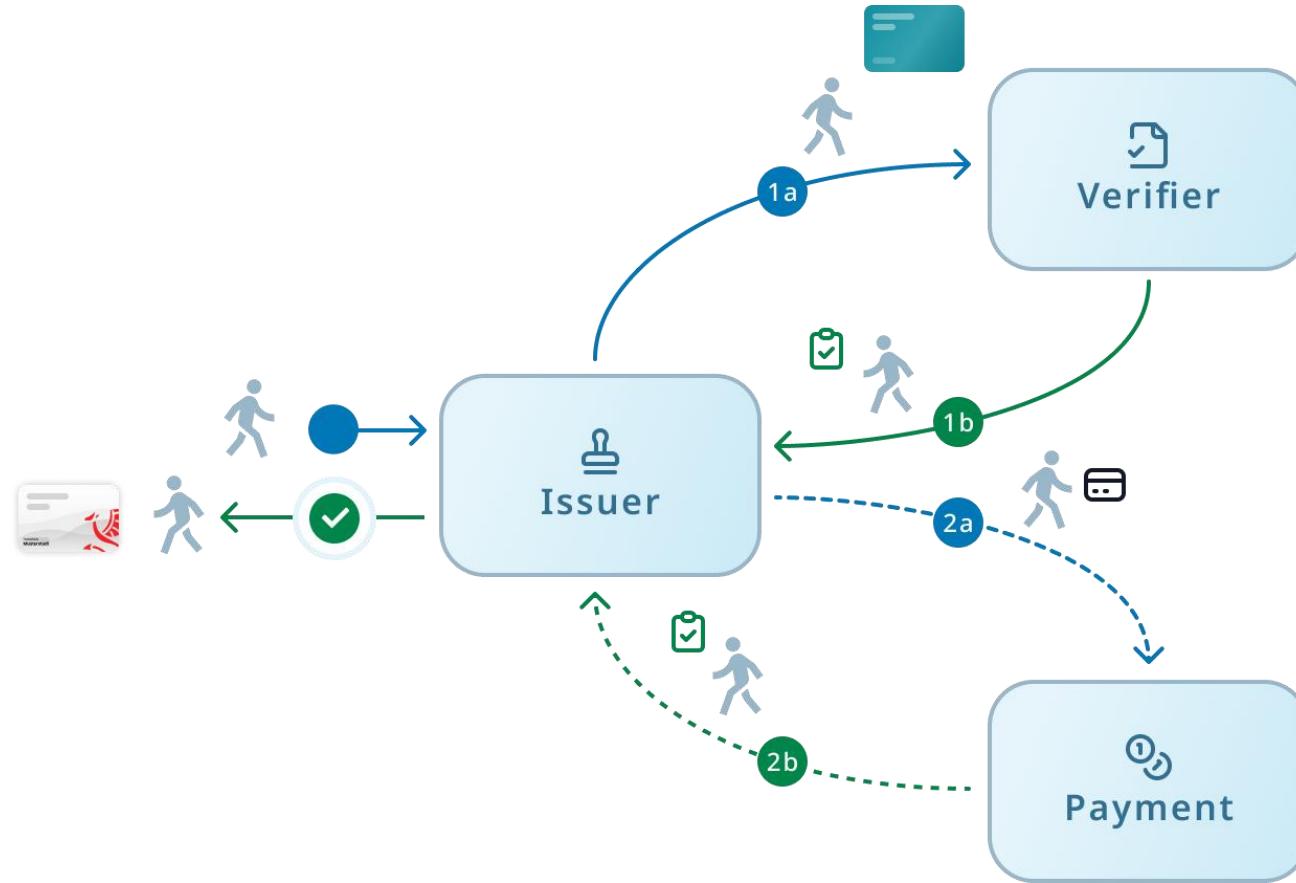
DVS4U

Case

Betreibungsregisterauszug

Case Betreibungsregisterauszug

# Beta ID → Betreibungsregisterauszug



**Beta-ID prüfen**

Beta-ID prüfen

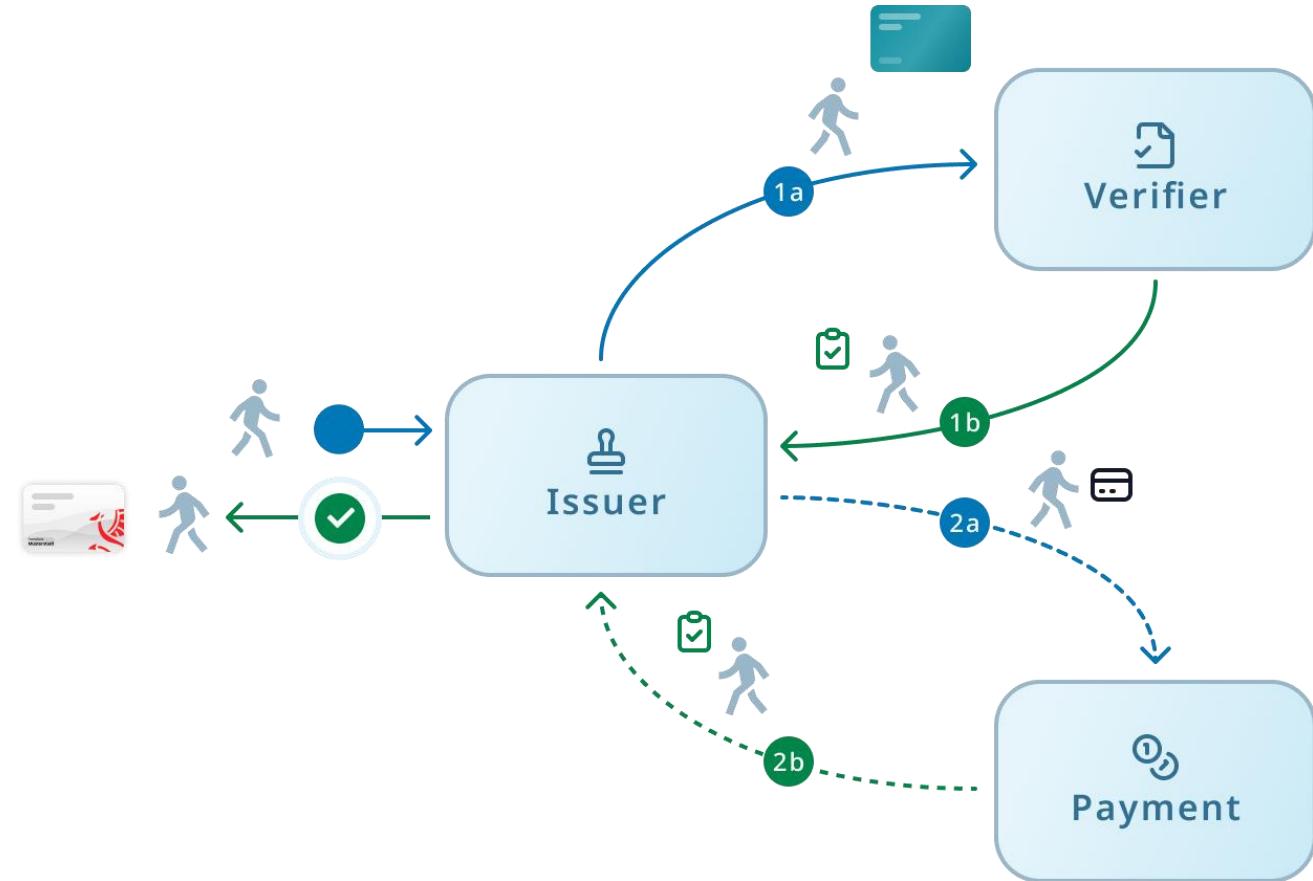
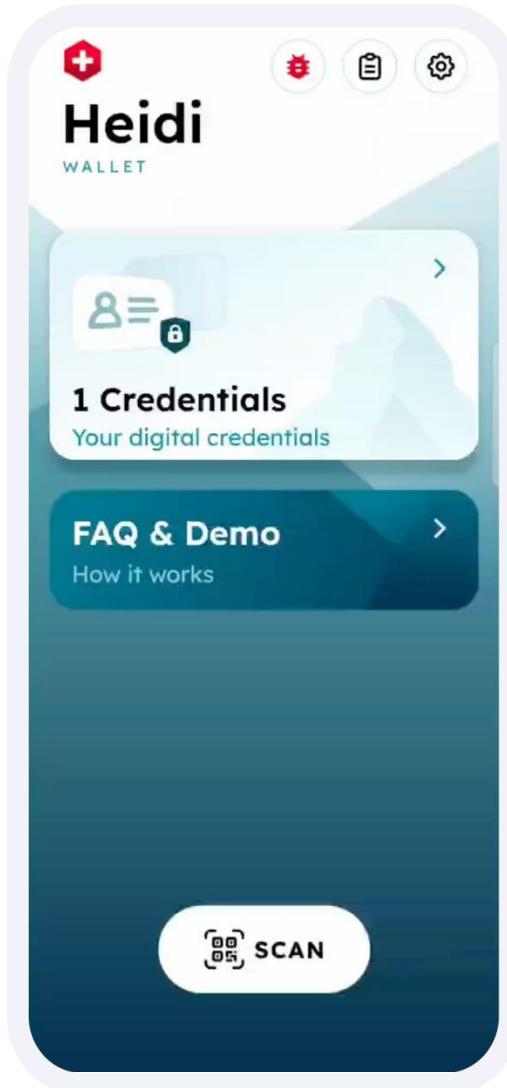
fake-betaid	
<input type="text"/> birth_date	Date of Birth
<input type="text"/> family_name	String
<input type="text"/> given_name	String

**Betreibungsregisterauszug ZH**

• Adresse	Musterstrasse 3	String
• Anhang	Musteranhang	String
• Behörde	Musterbehörde	String
• Bemerkung	Musterbemerkung	String
• Datum	Static Value	Datetime
• Einträge	1	String
• Geb	Static Value	Date of Birth
• Name	Static Value	String
• Nr.	1	Number
• Ref.	1	Number
• Vorname	Static Value	String



# Presentation During Issuance



# Request Access for your Team Members



Haus der Kantone  
Speichergasse 6  
3003 Bern

- [digitale-verwaltung-schweiz.ch](http://digitale-verwaltung-schweiz.ch)
- [administration-numerique-suisse.ch](http://administration-numerique-suisse.ch)
- [amministrazione-digitale-svizzera.ch](http://amministrazione-digitale-svizzera.ch)