

# Accenture Tech Revolution Summit

Europaweit verifizierbare  
Digitale **N**achweise

**Accenture Tech Revolution Summit**

**München, 9. November 2023**  
DSRV, Bereich 0552

# Zielsetzung

# 1

## Ziel und Rolle der DRV Bund

Anwendungsfälle  
Übersicht der Konsortien  
Zusammen für eine grenzüberschreitende Anwendung

# Deutsche Rentenversicherung Bund



## → Zielsetzung

- Woher kommen wir ?

## → Datenaustausch in der Sozialversicherung

- Nachrichtenaustausch
- Anwendungsfälle der Sozialversicherung
  
- EESSI – European Exchange of Social Security Information

## → Datenaustausch mit dem Bürger

- EDNA Europaweit verifizierbare Digitale Nachweise
- Anwendungsfall A1-Bescheinigung

# Zwei Konsortien



Insg. 82 Organisationen aus 23 Staaten

## Work Package 6

Work Package Leader	
Dachverband der Sozialversicherungsträger (AT)	DVSV

Task executors	
Sozialversicherungsanstalt der Selbständigen (AT)	SVS
Styrelsen for Arbejdsmarked og Rekruttering (DK)	Star
Deutsche Rentenversicherung Bund (DE)	DRV
Generalzolldirektion (DE)	GZD
Smals (BE)	Smals
Crossroads Bank for Social Security (BE)	CSS
Rijksdienst voor de Sociale Zekerheid (BE)	RSZ
Vecozo BV (NL)	Vecozo
Narodowy Fundusz Zdrowia (PL)	NFZ
Instituto Segurança social (PT)	ISS
Administração Central do Sistema de Saúde (PT)	ACSS
Gerencia de Informática de la Seguridad Social - Ministerio de Inclusión (ES)	GISS
Forsakringskassan (SE)	FK
Health Insurance Bureau (CZ)	KZP
Department of Social Protection (IE)	DSP

Insg. 52 Organisationen aus 20 Staaten

## Work Package 5

Social security specification design




→ Teilnahme der DRV als Aussteller von PDA1



Gefördert aus Mitteln der Europäischen Union

# Anwendungsfälle

Coordination of Social Security Systems

**A1** 

**Certificate concerning the Social Security legislation which applies to the holder**  
EU Regulations 883/2004 and 987/2009 (\*)

**INFORMATION FOR THE HOLDER**

This certificate concerns the social security legislation which applies to you and confirms that you have no obligations to pay contributions in another State.

Before you leave the State where you are insured to go to another State to work, make sure you have the documents which entitle you to receive the necessary benefits in kind (e.g. medical care, treatment in hospital, and other) in the State where you are working.

- if you are staying temporarily in the State where you are working, ask your health care institution for the European Health Insurance Card (EHIC). You must show this card to your health care provider if you need benefits in kind during your stay.
- if you are going to be living in the State where you are working, ask your health care institution for the S1 document and submit it as soon as possible to the competent health care institution of the place you are going to work (\*\*).

Provisionally the insurance institutions in the State of stay will also provide special benefits in the event of an accident at work or an occupational disease.

**1. PERSONAL DETAILS OF THE HOLDER**

1.1 Personal Identification Number  Female  Male

1.2 Surname

1.3 Forenames

1.4 Surname at birth (\*\*\*)

1.5 Date of birth

1.6 Nationality

1.7 Place of birth

1.8 Address in the State of residence

1.8.1 Street, N°

1.8.2 Town

1.8.3 Post code

1.8.4 Country code

1.9 Address in the State of stay

1.9.1 Street, N°

1.9.2 Town

1.9.3 Post code

1.9.4 Country code

**2. MEMBER STATE LEGISLATION WHICH APPLIES**

2.1 Member State

2.2 Starting date

2.3 Ending date

2.4 The certificate applies for the duration of the activity

2.5 The determination is provisional

2.6 Transitional rules apply as provided for by Regulation (EC) No 883/2004

(\*) Regulations (EC) No 883/2004, Articles 11 through 16 and Regulation (EC) No 987/2009, Article 16  
 (\*\*\*) For Spain, Sweden and Portugal, the certificate must be handed over to, respectively, the head/practical offices of social security National Institute (INSS), the social insurance institution and the social security institution of the place of residence.  
 (\*\*\*) Information given to the institution by the holder when this is not known by the institution.

1/3

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EUROPÄISCHE KRANKENVERSICHERUNGSKARTE

*Dr. Mustermann*

UNTERSCHRIFT 

1. Name	DR. MUSTERMANN
2. Geburtsdatum	01/07/1950
3. Personlicher Kennenzusatz	1100 - WGKK
4. Personlicher Kennenzusatz	1234567890
5. Kennzahlnummer der Karte	80040000010000000016
6. Aktivitätsdatum	01/01/2016



# Ökosystem

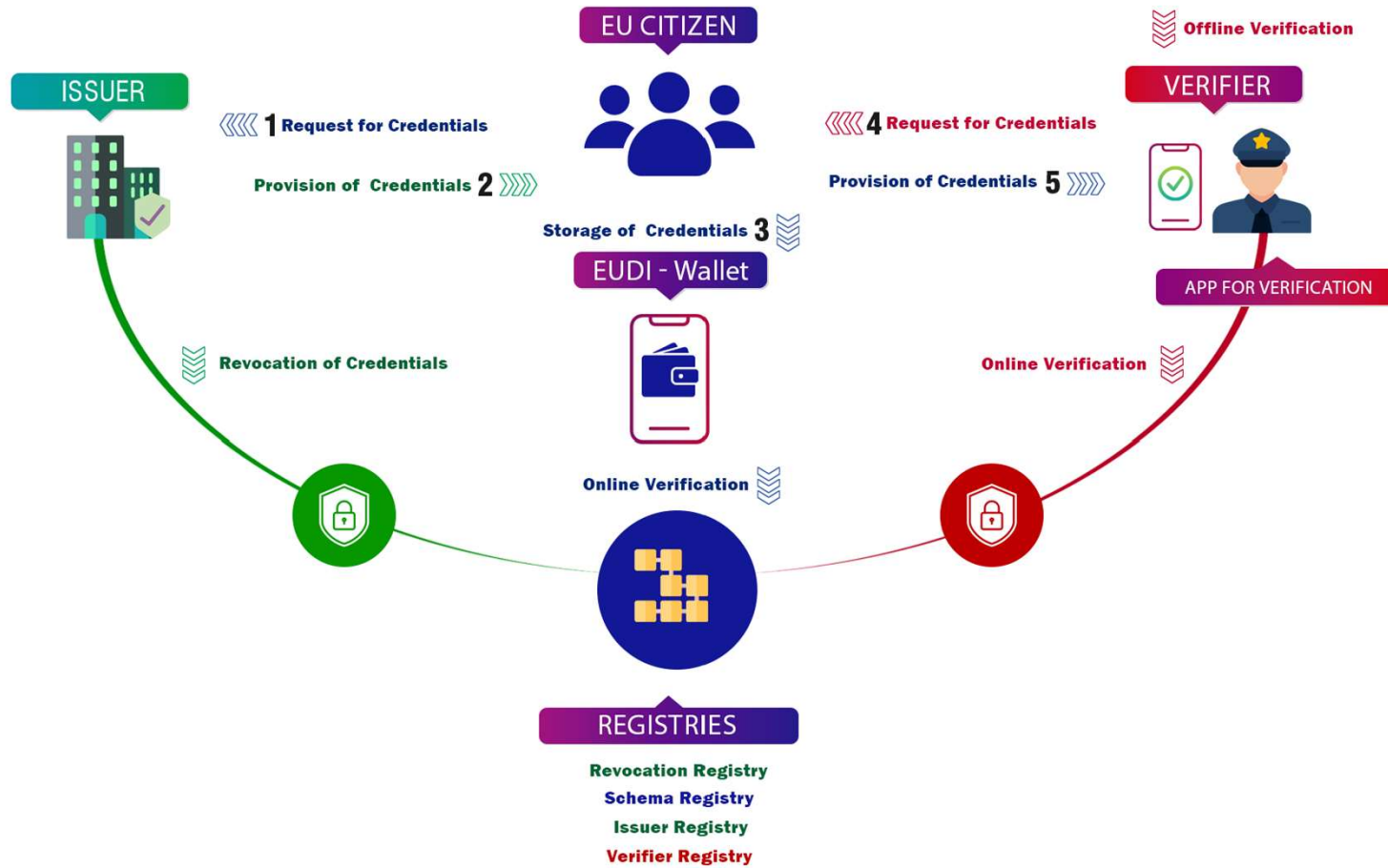
# 2

## Was wird gebraucht ?

Aussteller  
Bürger  
Verifizierer

Register

# Ökosystem



# Datenaustausch mit dem Bürger

## → Perspektive des Senders

- Adresse ?
- Identifikation ?
- Nachricht ?

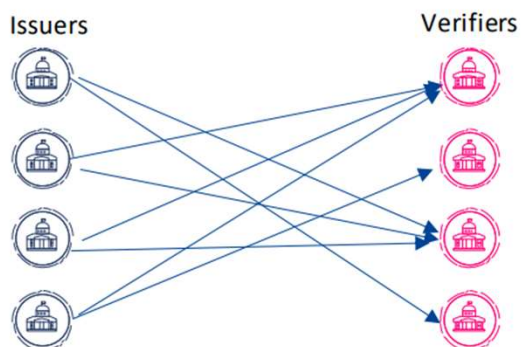
## → Perspektive des Empfängers

- Kommunikation ?
- Sender ?
- Nachricht ?
- Autorisierung ?



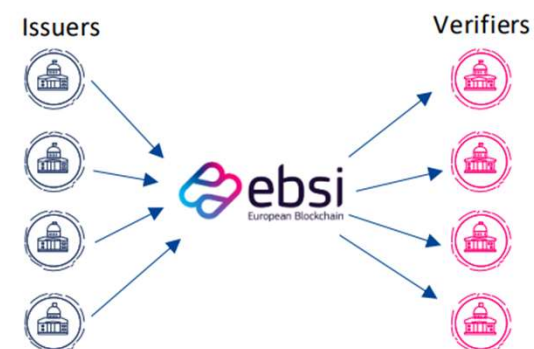
# Vertrauensmodelle: Bilateral vs. Zentral

Issuers and verifiers can establish relationship via  
**bilateral agreements**



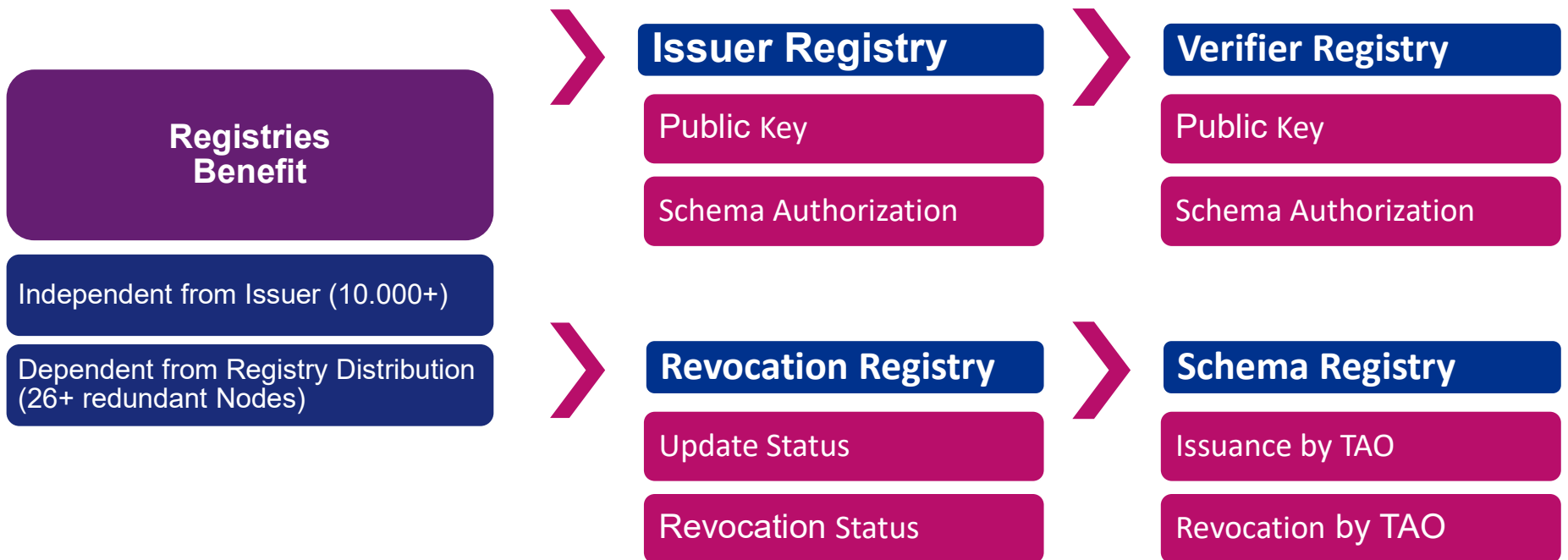
- + Good, if there are few issuers
- + Simple to design
- Requires custom set-up
- Use-case specific
- Hard to scale

Issuers and verifiers can establish relationship via  
**trust anchors/ trust model**



- + Good, if there are many issuers and verifiers
- Challenging to design
- + No custom set-up
- + Applicable to a wide range of use-cases
- + Easy to scale (both horizontal and vertical scaling)

# Register für die Sozialversicherung



# Basiskonzepte & Architektur: Benötigte Standards



Verifiable Credentials Data Model v1.1

Decentralized Identifiers v1

Presentation Exchange v2



OpenID Connect for Verifiable Credentials  
Issuance

OpenID Connect for Verifiable Presentations

OpenID Connect SIOP v2



 Jason Format for AdES Signatures (JAdES)

JSON Web Token (JWT) with Advanced Electronic  
Seal based on qualified certificate according to ETSI  
TS 119 182-1 B-LT

JSON Web Token (JWT) with advanced electronic seal  
based on decentralized registry of EBSI trusted issuer.

eID Authentication and Identification



SD-JWT

IETF RFC 7515-7520

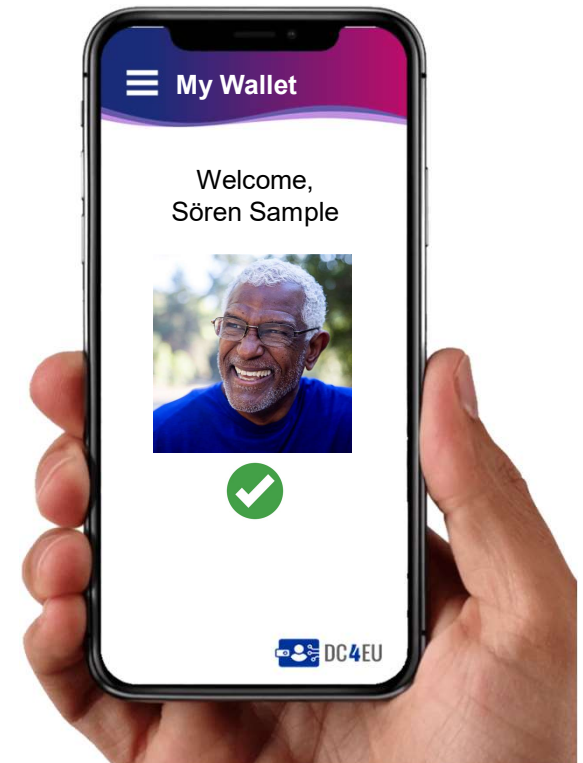
# User Journeys

# 3

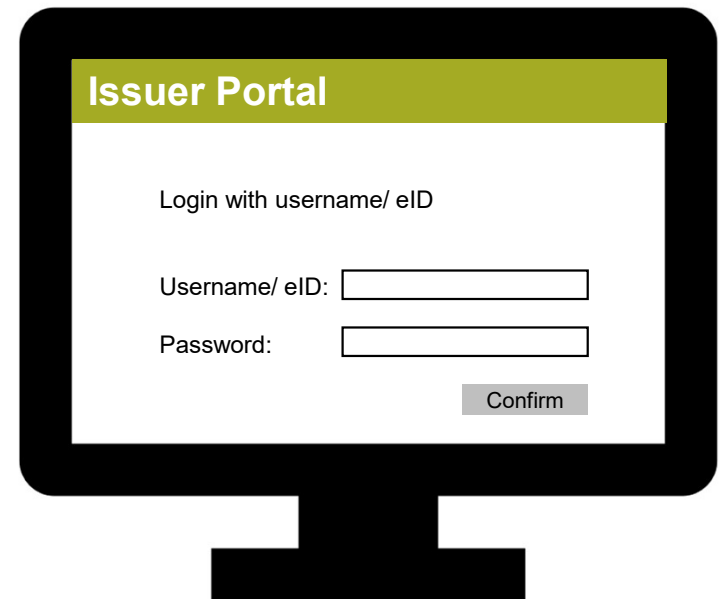
**Bediensequenzen für den Bürger ?**

Mögliche Interaktion mit dem Bürger

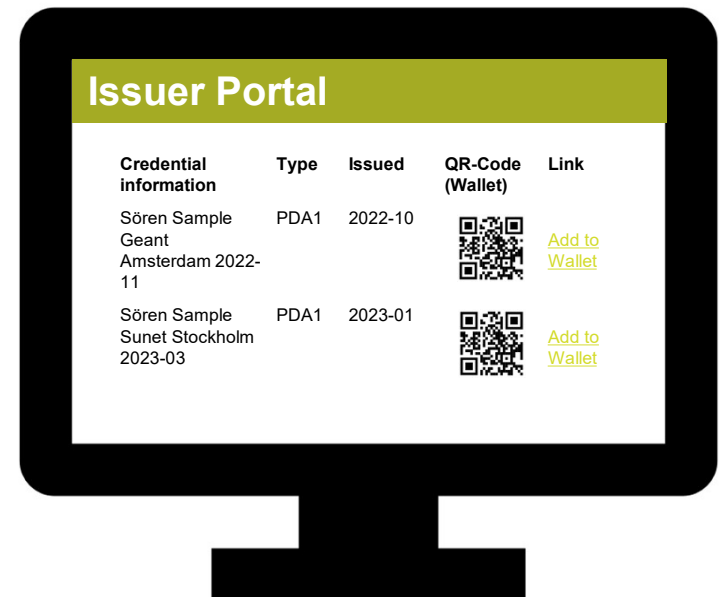
1. EUID Wallet is installed from store
2. Optional: Wallet is onboarded with PID/eID
  - a. National process (Outside Wallet) is followed to get PID
  - b. Citizen scans received QR code (1)/follows link (2)



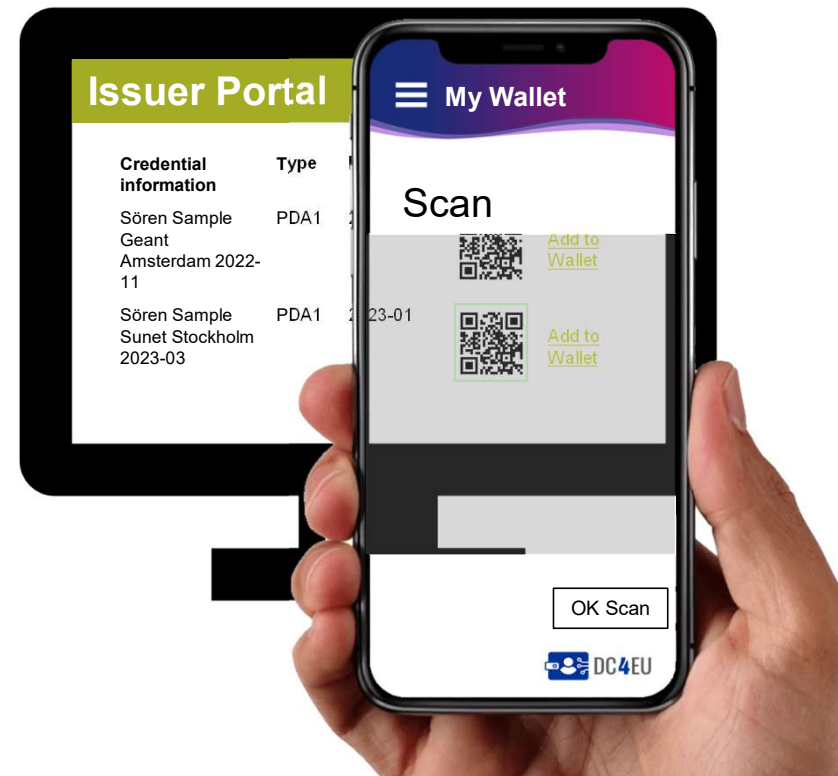
1. Visits issuer portal (outside EUDI Wallet) and logs in using eID



2. Issuer portal shows available Credentials with QR-Code and link (for single device usage)

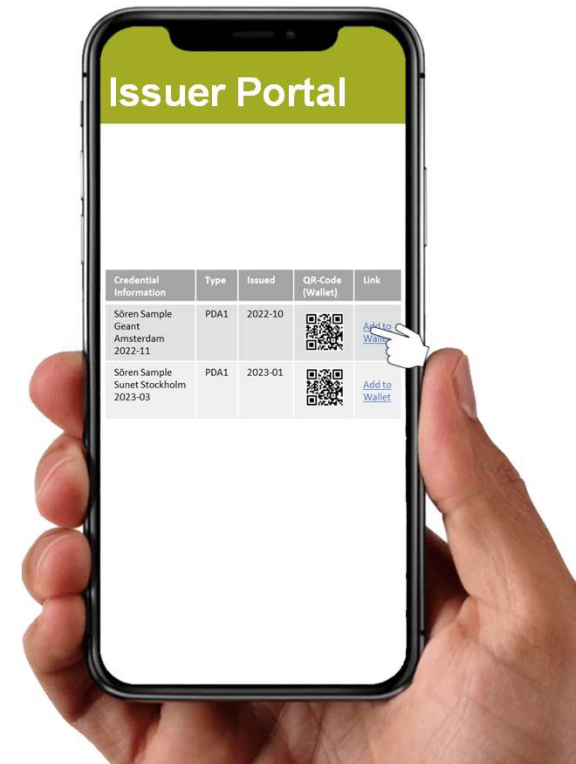


3. Citizen scans QR-Code (with Wallet) or opens link on phone



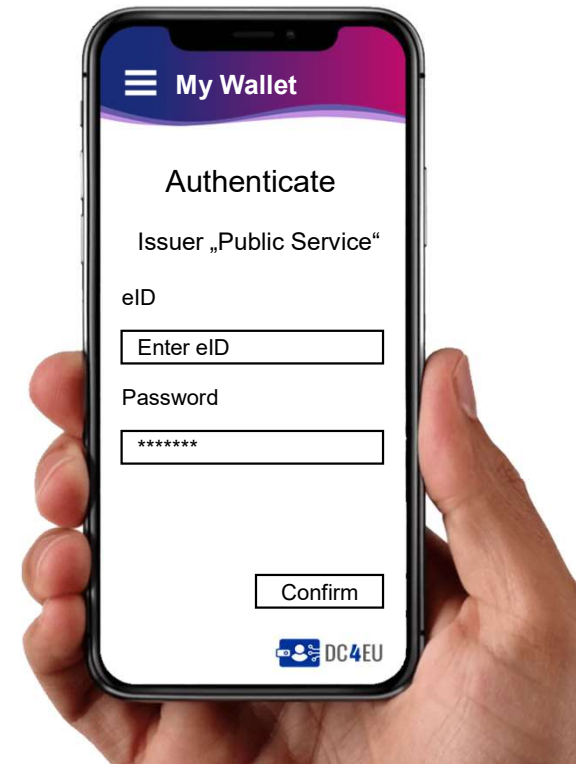


3. Citizen scans QR-Code (with Wallet) or opens link on phone

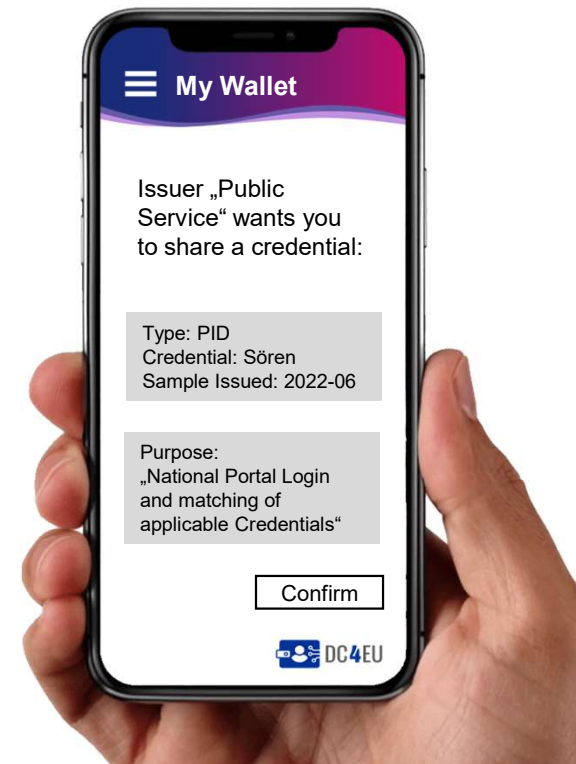


4a. In case there is no PID in the wallet, the Citizen authenticates itself with eID

- a. Within the EUDI Wallet
- b. Outside the EUDI Wallet on Issuer Website

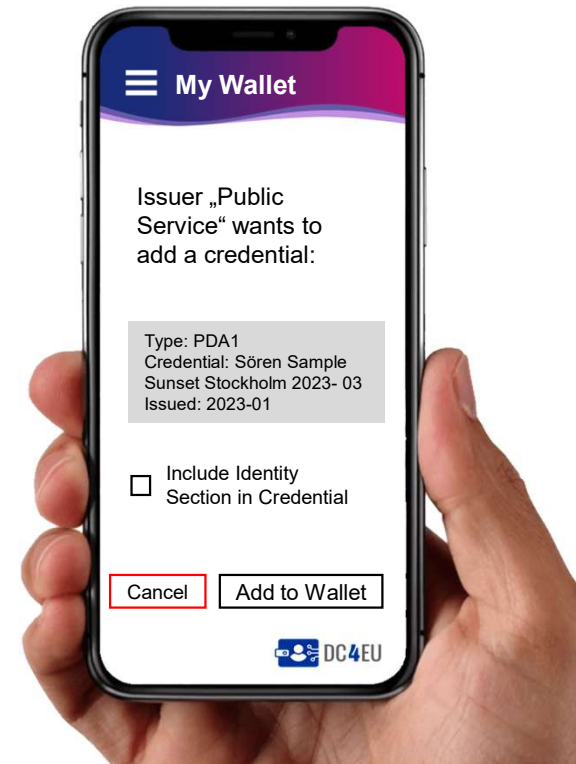


4b. In case the PID credential is available inside wallet, the citizen confirms the sharing for authentication




5. **To be discussed:** User is asked if eID/PID should be integrated in VC

6. Citizen confirms Credential



1. Citizen requests credential using traditional process
2. Credential Document is created and send to citizen
  - a. Standard VP QR-Code is included which can be used for credential verification




Dear [Employer]  
Please find attached the

PDA1

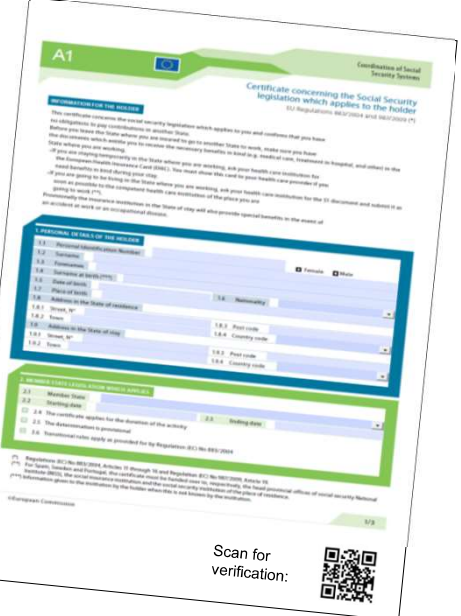
For the posting of  
(insured Person)  
for  
[posting period]

Your employee may use this QR-Code  
to download the credential in his EUDI-  
Wallet

Scan to add  
to Wallet:



Issued by „Public Service Institution“



The screenshot shows a digital document with a green header and a QR code. The document is titled "Certificate concerning the Social Security legislation which applies to the holder" and includes a section for "PERSONAL DATA OF THE HOLDER" with fields for name, date of birth, and other personal information. A QR code is located at the bottom right of the document, with the text "Scan for verification:" next to it.

### 3. Citizen scans additional QR-Code for pickup


Logo of Institution

Dear [Employer]  
Please find attached the

PDA1

For the posting of  
(insured Person)  
for  
[posting period]

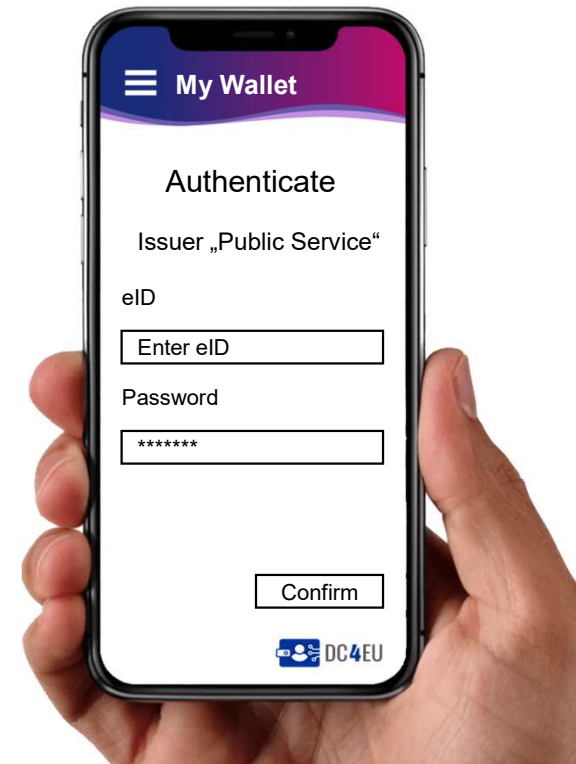
Your employee may use this QR-Code  
to download the credential in his EUDI-  
Wallet

Scan to add  
to Wallet: 

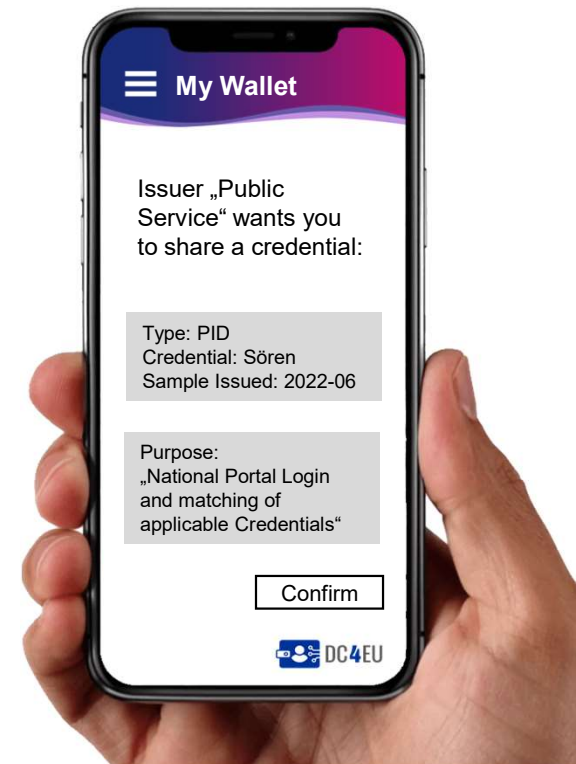
Issued by „Public Service Institution“



- 4a. In case there is no PID in the wallet, the Citizen authenticates itself with eID
- Within the EUDI Wallet
  - Outside the EUDI Wallet on Issuer Website



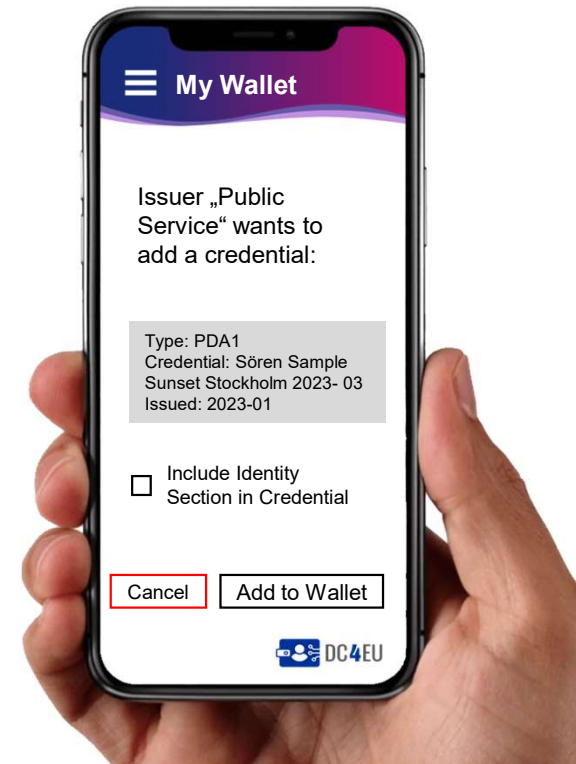
4b. In case the PID credential is available inside wallet, the citizen confirms the sharing for authentication





5. **To be discussed:** User is asked if eID/PID should be integrated in VC

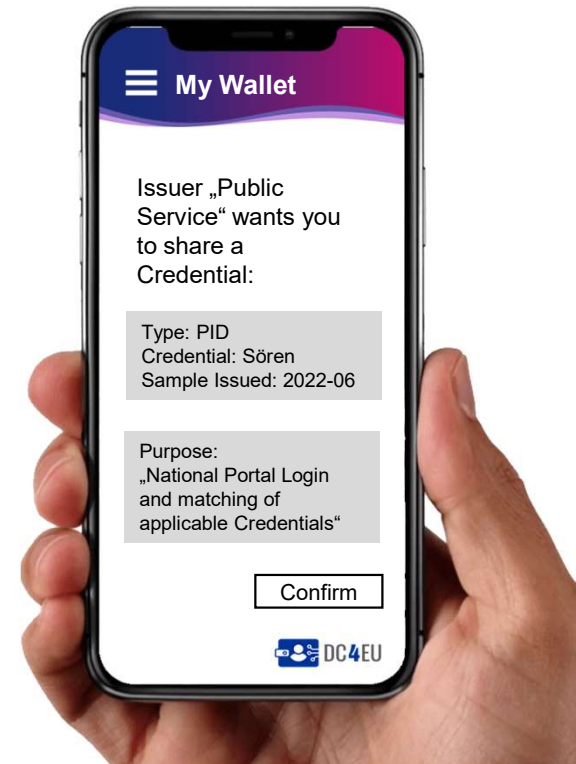
6. Citizen confirms Credential



1. Visits Issuer portal (outside EUDI Wallet) and scans QR-Code for login with the wallet using PID

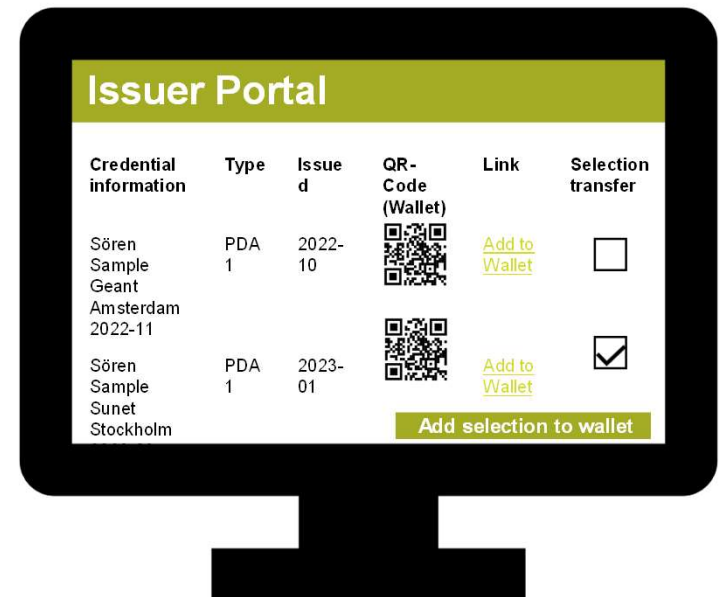


## 2. Citizen confirms sharing his Identity Credential



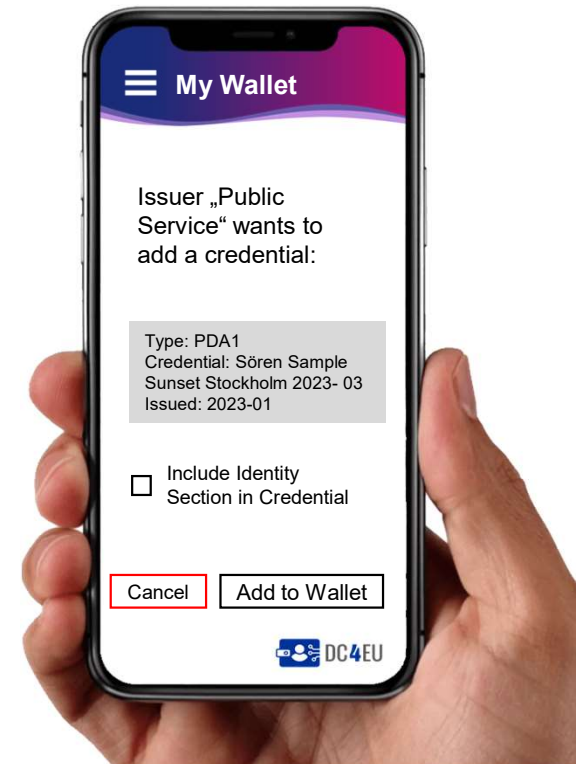
3. Issuer portal shows available credentials

4. Citizen selects VCs to add to wallet and confirms selection

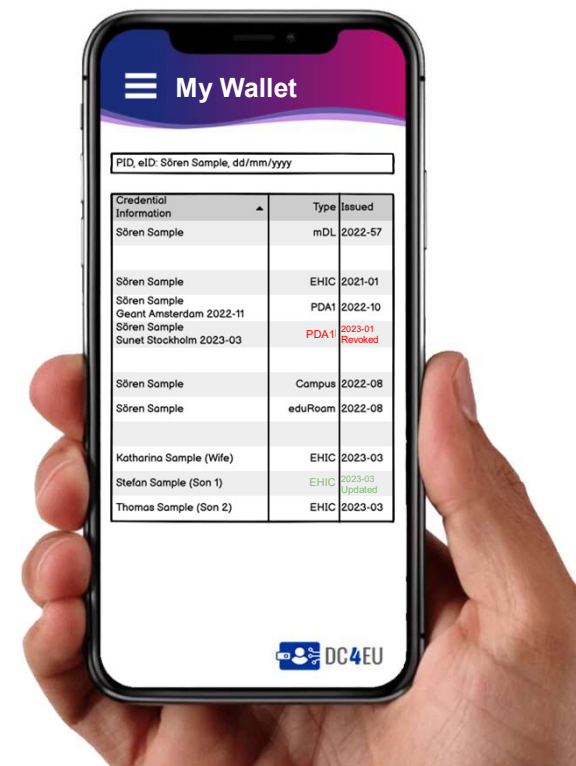


5. **To be discussed:** User is asked if eID/PID should be integrated in VC

6. Citizen confirms Credential



VCs are shown in the Holders EUDI Wallet



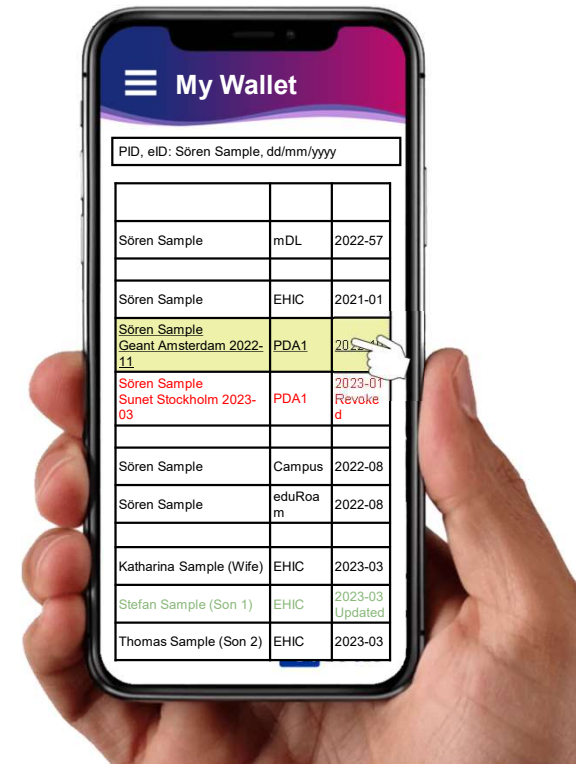
After being authenticated with PID

the wallet shows list (+history) of Identities and imported (Q)EAAs

Additionally, credentials are checked periodically for updates or revocation which are displayed in the list



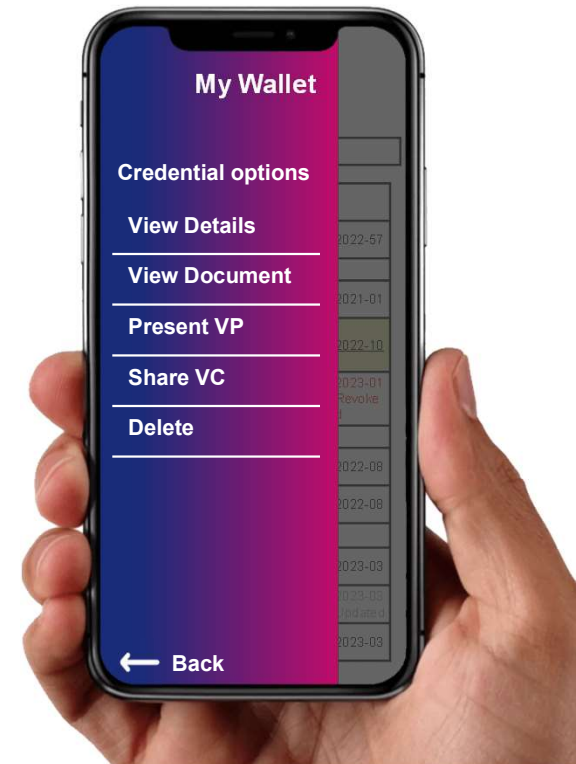
Credential can be selected to show available options





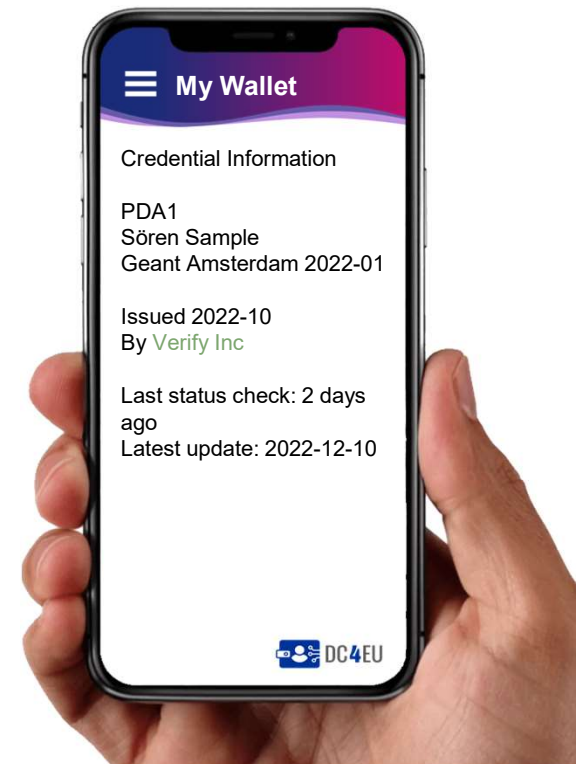
### Credential options:

1. **View Details** – Credential and status information
2. **View Document** – Create viewable document
3. **Present VP**
  1. QR-Code/ NFC / Bluetooth/ Endpoint
  2. Select VP
4. **Share VC**
  1. QR-Code/ NFC / Bluetooth/ Endpoint
5. **Delete** – Credential is deleted from wallet



## Credential options:

1. **View Details – Credential and status information**
2. View Document – Create viewable document
3. Present VP
  1. QR-Code/ NFC / Bluetooth/ Endpoint
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5. Delete – Credential is deleted from wallet



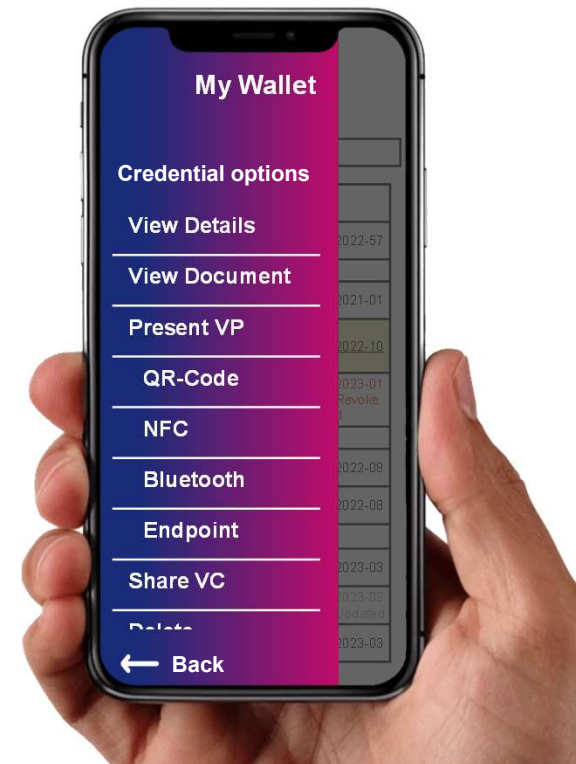
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1. View Details – Credential and status information
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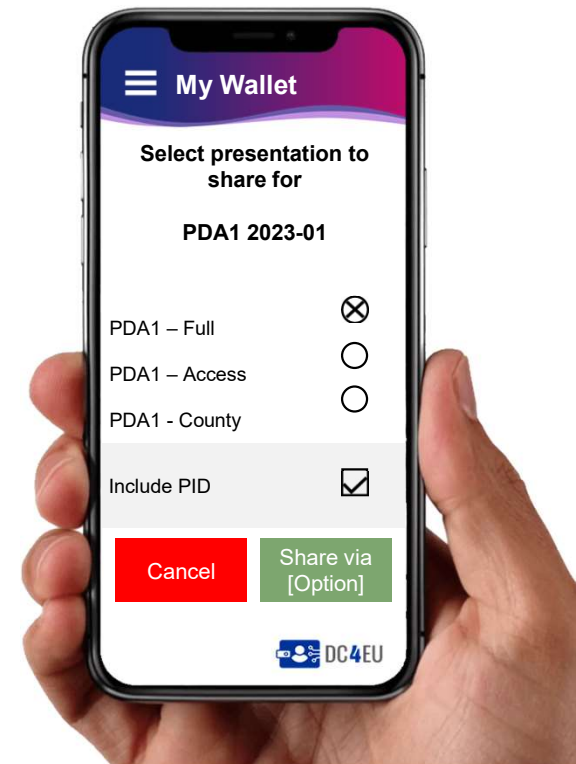
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1. View Details – Credential and status information
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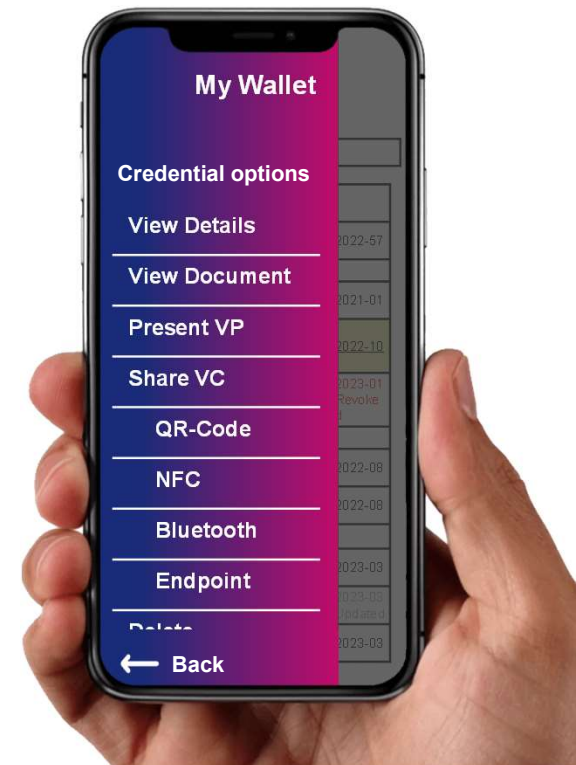
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- 3. Present VP**
  1. QR-Code/ NFC / Bluetooth/ Endpoint
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5. Delete – Credential is deleted from wallet



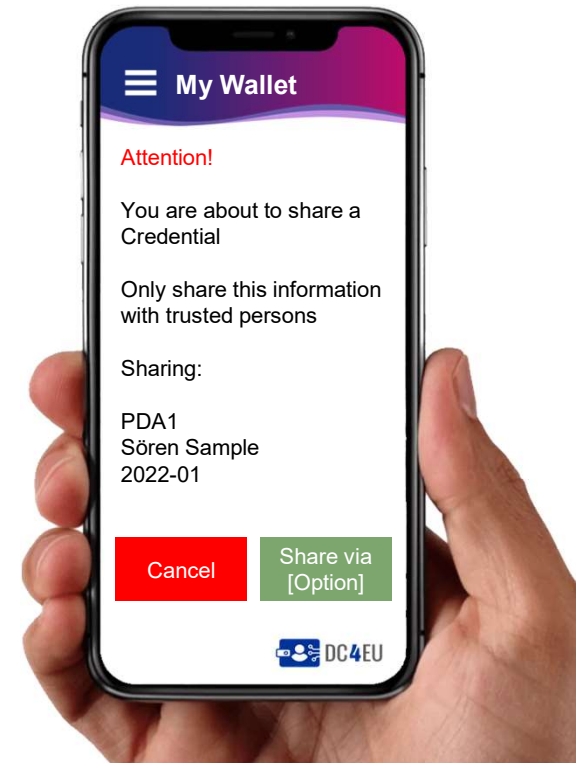
### Credential options:

1. View Details – Credential and status information
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### Credential options:

1. View Details – Credential and status information
2. View Document – Create viewable document
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  1. QR-Code/ NFC / Bluetooth/ Endpoint
  2. Select VP
4. **Share VC**
  1. **QR-Code/ NFC / Bluetooth/ Endpoint**
5. Delete – Credential is deleted from wallet

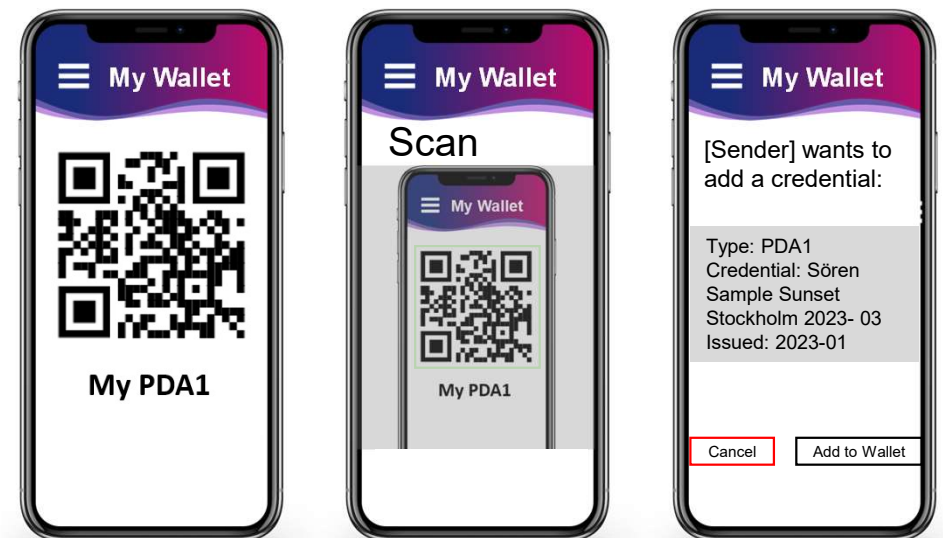






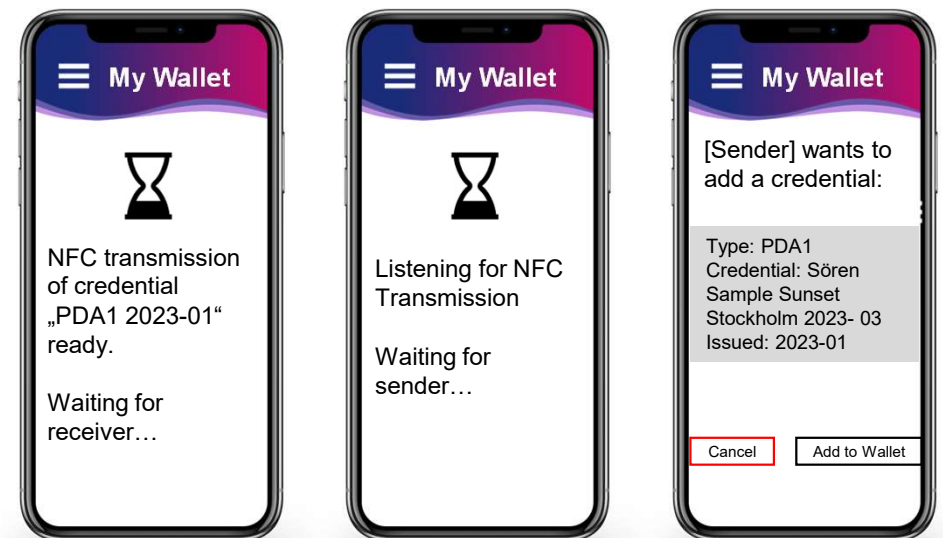
## Transmission options

1. **QR-Code**
2. NFC
3. Bluetooth
4. Endpoint (Holder-Wallet)
5. Endpoint (Receiver)
6. WLAN



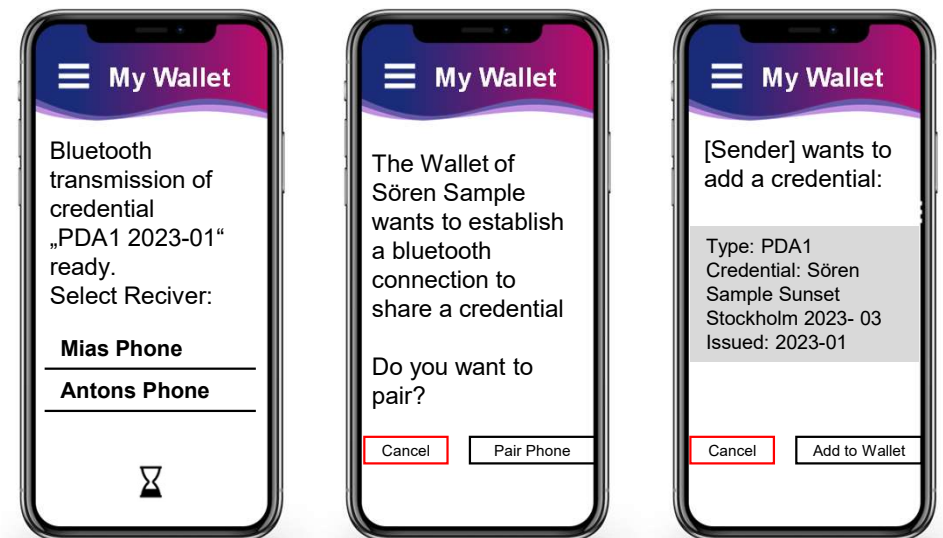
## Transmission options

1. QR-Code
- 2. NFC**
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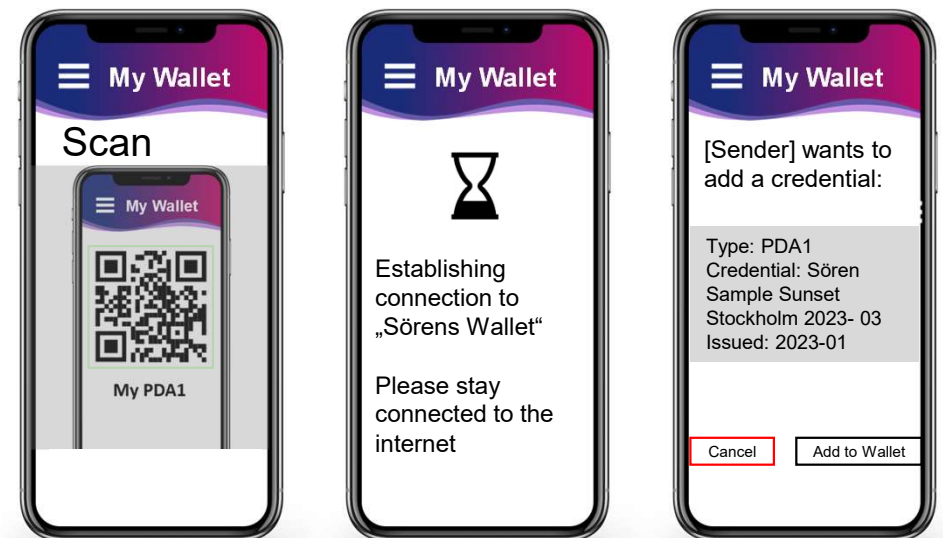
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4. Endpoint (Holder-Wallet)
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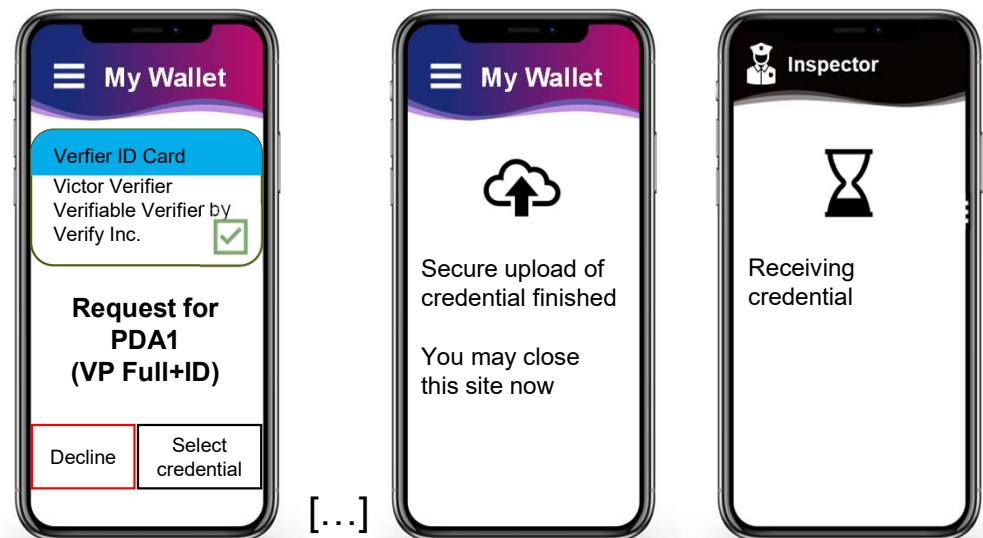
## Transmission options

1. QR-Code
2. NFC
3. Bluetooth
4. **Endpoint (Holder-Wallet)**
5. Endpoint (Receiver)
6. WLAN



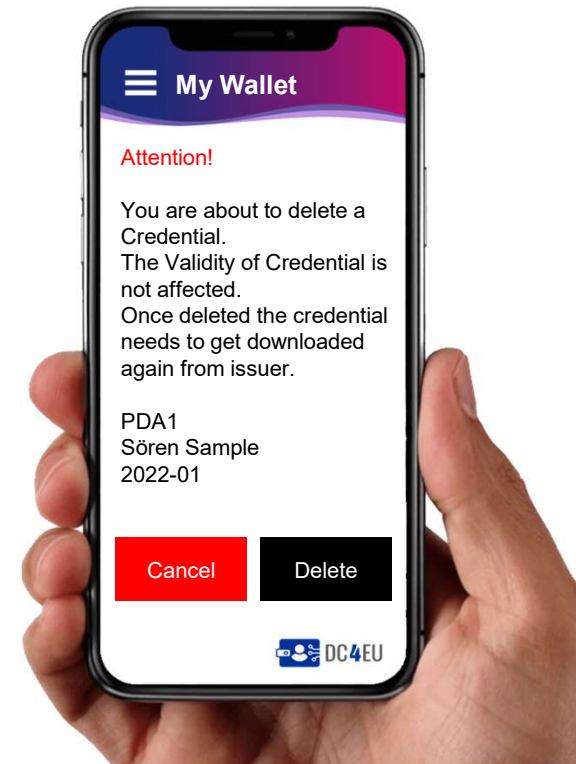
## Transmission options

1. QR-Code
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4. Endpoint (Holder-Wallet)
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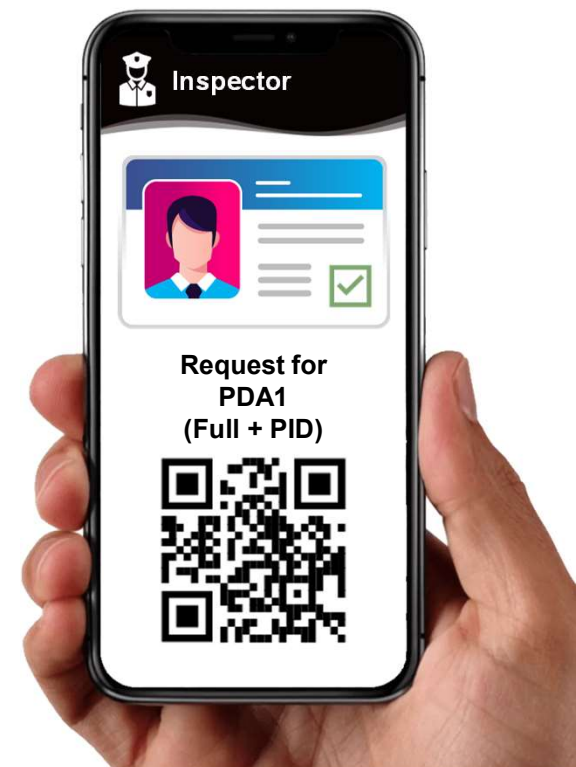


### Credential options:

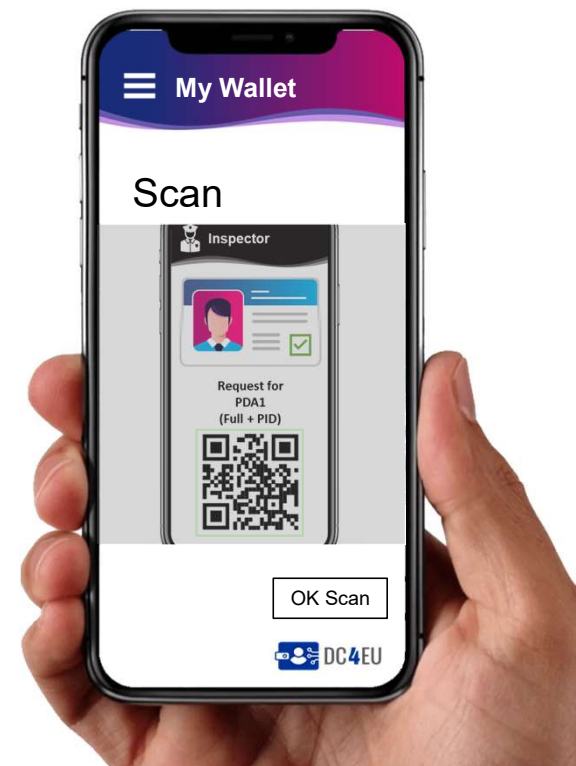
1. View Details – Credential and status information
2. View Document – Create viewable document
3. Present VP
  1. QR-Code/ NFC / Bluetooth/ Endpoint
  2. Select VP
4. Share VC
  1. QR-Code/ NFC / Bluetooth/ Endpoint
5. **Delete – Credential is deleted from wallet**



1. Verifier initiates process by creating request as QR-Code

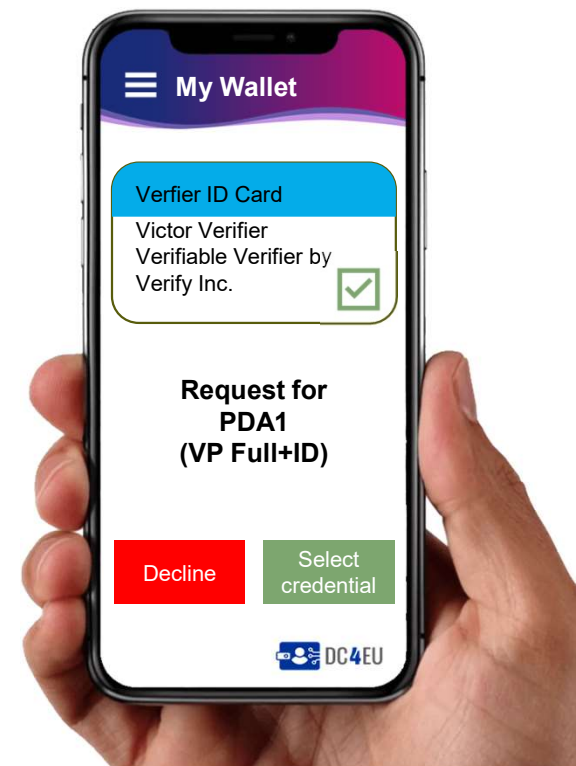


2. Holder Scans QR-Code and gets information on the verification of verifier and the requested data

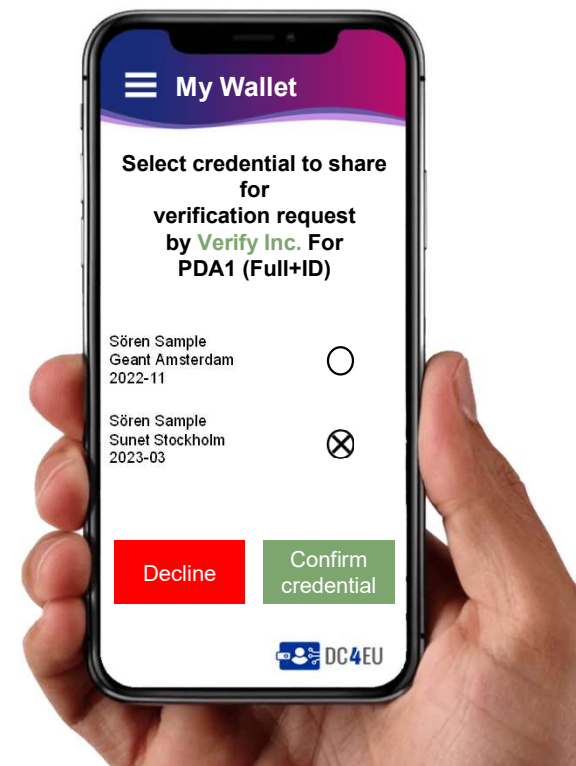




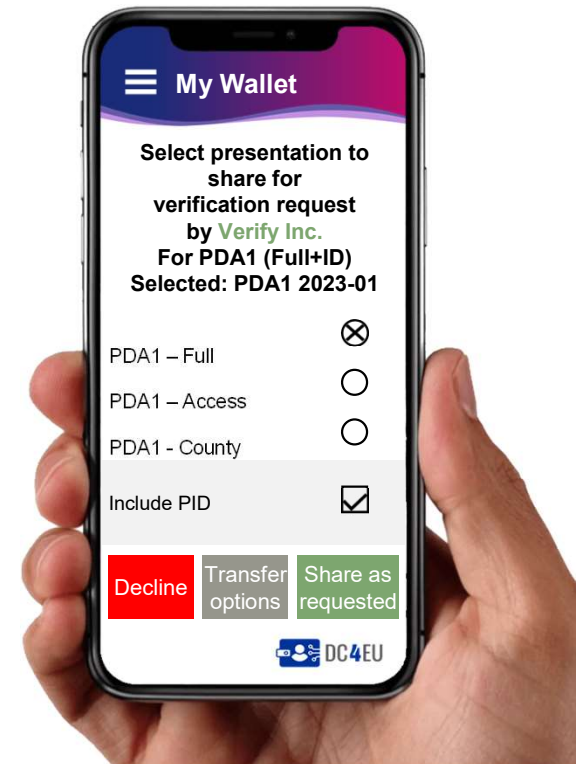
3. Request information and verifier verification status are shown on holder wallet



3. Holder selects the applicable credential



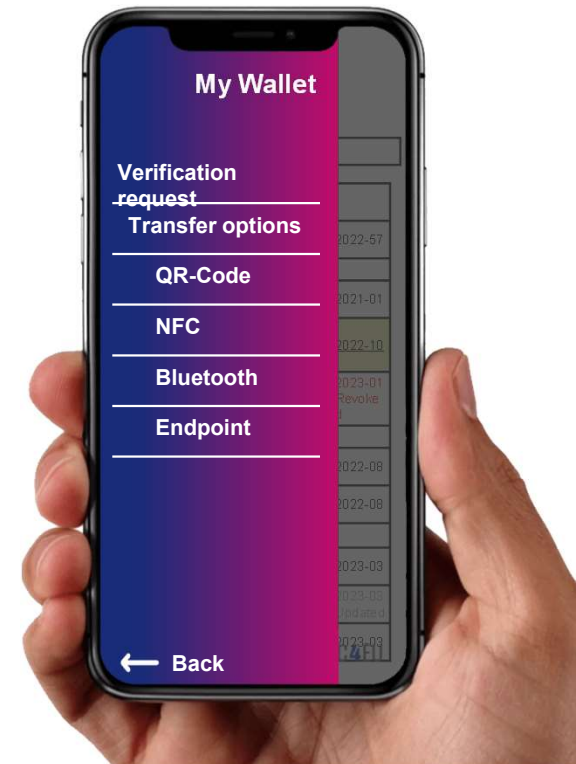
4. Holder selects the presentation type and decides on whether the PID should be included



4a. Citizen confirms selection. Share as requested initiates presentation method as done in verifier request.  
E.g. QR-Code including the selected VP is being created



4b. Citizen may prefer other sharing option. „Transfer options“ lists all available methods. Selection initiates the process accordingly.



5. Created QR-Code is being scanned by verifier or information is received via NFC



6. Information get validated and status shown as traffic lights

- a. **Green**     **Attestations and Identity Section are OK**
- b. **Yellow**     Attestation OK, Identity MANUAL CHECK
- c. **Red**     Attestation FAILED



6. Information get validated and status shown as traffic lights

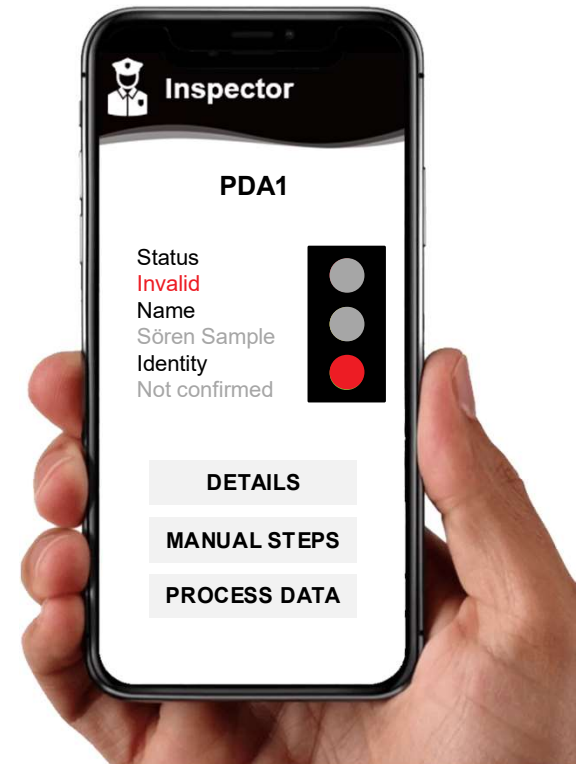
- a. **Green**      Attestations and Identity Section are OK
- b. **Yellow**    **Attestation OK, Identity MANUAL CHECK**
- c. **Red**        Attestation FAILED





6. Information get validated and status shown as traffic lights

- a. **Green**      Attestations and Identity Section are OK
- b. **Yellow**     Attestation OK, Identity MANUAL CHECK
- c. **Red**         **Attestation FAILED**



# Ausblick

# 4

**Wie geht das weiter ?  
Wohin führt das ?**

# Zeitleiste



## → 2023

- Vorbereitung

## → 2024

- Piloten DC4EU
- Piloten Vector

## → 2025

- Abschluss

## → 2026

- Deutsche Wallet ?

**Vielen Dank für Ihre/Eure  
Aufmerksamkeit und  
Unterstützung!**