Ecosystem of digital identities

Introductory presentation

July 2021

Introduction of digital identity

Overall context: Project Ecosystem of Digital Identities

European dimension

Identity has many facets – and is significantly more than the information on the identity card

I studied medicine

I'm married

I have an income of ...

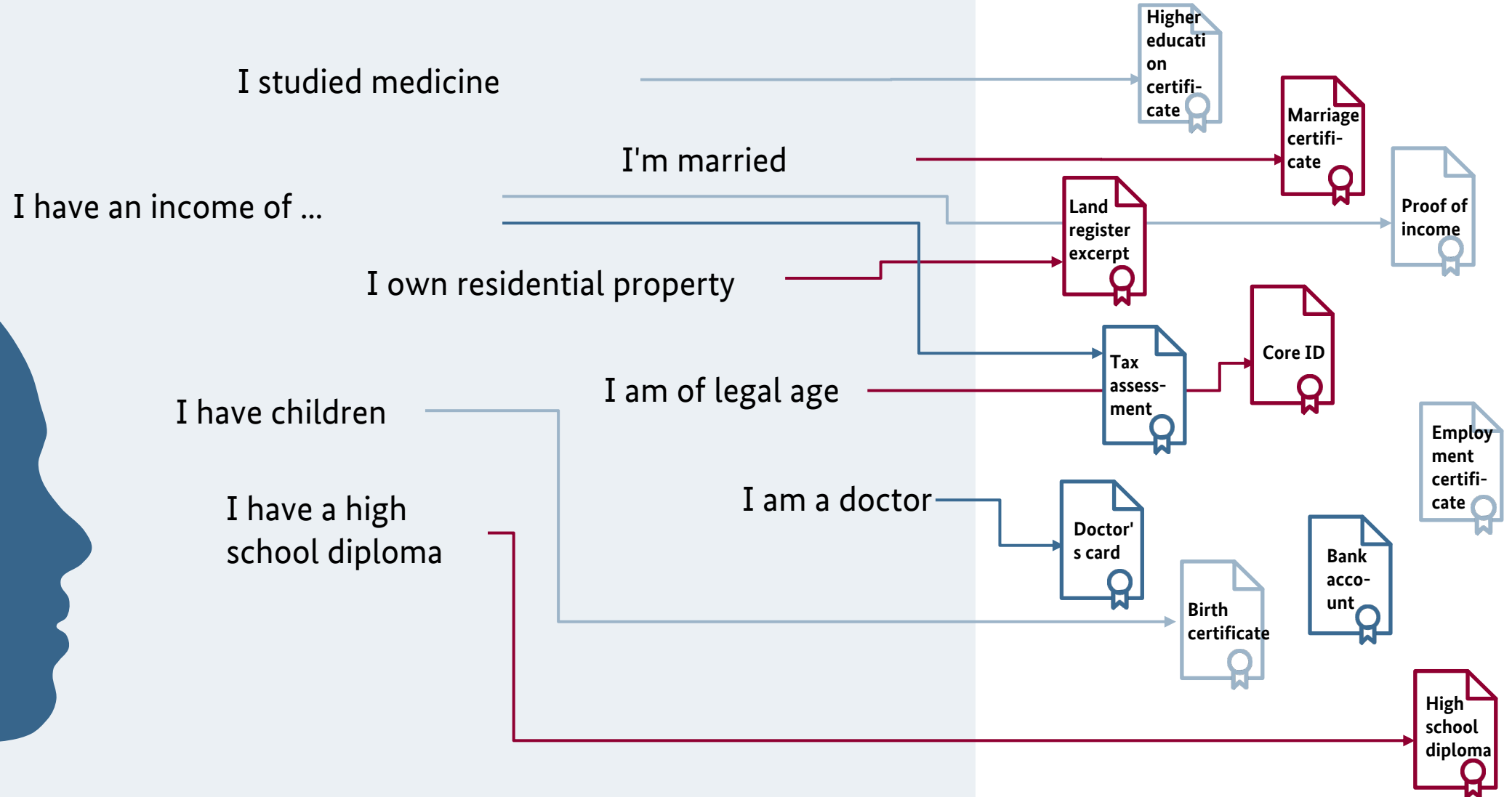I own residential property

I have children
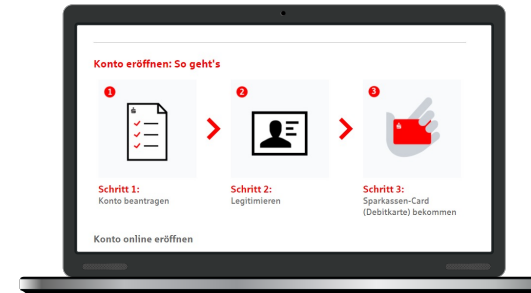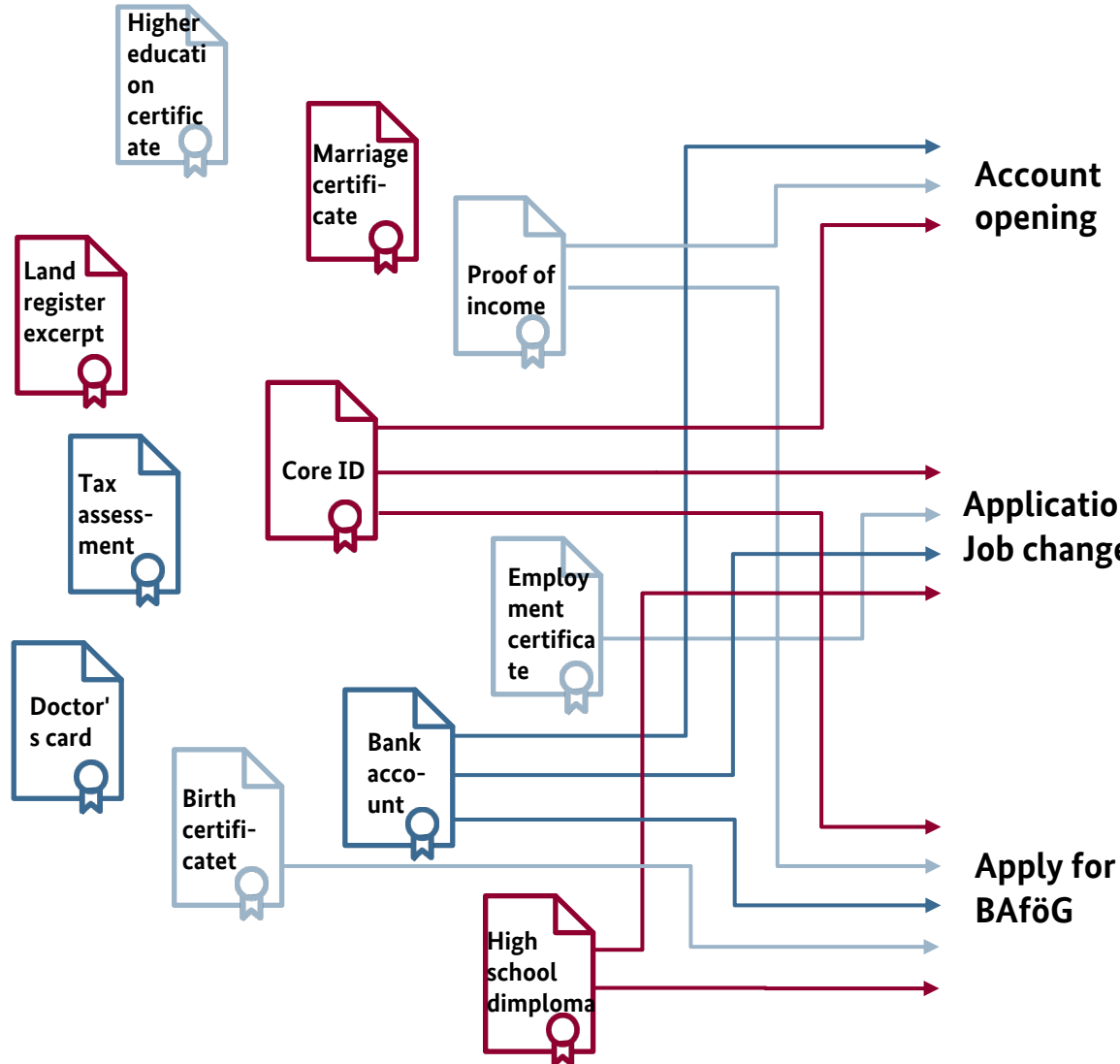
I am of legal age

I have a high school diploma

I am a doctor

„Identity is the totality of the peculiarities that [...] characterize an object and distinguish it as an individual from others."

Certain claims must be regularly proven in everyday life by credentials

I studied medicine

I'm married

I have an income of …

I own residential property

I am of legal age

I have children

I am a doctor

I have a high school diploma

Higher education certificate

Marriage certificate

Proof of income

Land register excerpt

Core ID

Tax assessment

Employment certificate

Doctor's card

Bank account

Birth certificate

High school diploma

Verifiable digital credentials are a central prerequisite for many digital services

Higher education certificate

Marriage certificate

Land register excerpt

Proof of income

Tax assessment

Core ID

Doctor's card

Employment certificate

Birth certificatet

Bank account

High school dimploma

Account opening

Application & Job change

Apply for BAföG

Lack of digital credentials is one of the biggest obstacles to digitalization of our time

According to a study, digital identities can enable economic benefits equivalent to 3-4% of GDP in 2030

3 - 4%

The economic benefits equivalent to GDP in 2030 that digital identities in mature economies could release per country[1]
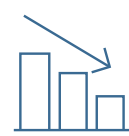
🇺🇸	🇬🇧
995	**97**

Billion USD

Examples of how digital identities can create value[1]

|	🇺🇸	🇬🇧	
Savings in retail through optimization of supply chains & operation	**6**	**5**	Billion USD
Savings through seamless and secure exchange of medical information	**5,3**	**3,3**	% value creation in the healthcare sector[3]
Time savings for citizens when using eGovernment services	**4400**	**500**	Millions of hours
Cost savings through reduction of wage fraud[2]	**2**	**1**	% of total wages

1. Estimates include the full benefits of digital identity use cases, provided that a high level of acceptance is achieved by 2030, the required digital infrastructure and ecosystem has been built, and complementary investments have been made
2. Removal of unauthorized or partly no longer existing employees ("ghost employees") from the payrolls of the administration and the private sector
3. Forecast for 2030 based on combination of data from MGI study with size of the health sector (= value added in the health sector) of GDP in 2030 by IHS Markit

Source: MGI study "Digital identification – A key to inclusive growth"; IHS Markit

All relevant verifiable and personalized proofs should be available to the user digitally, e.g. in a wallet
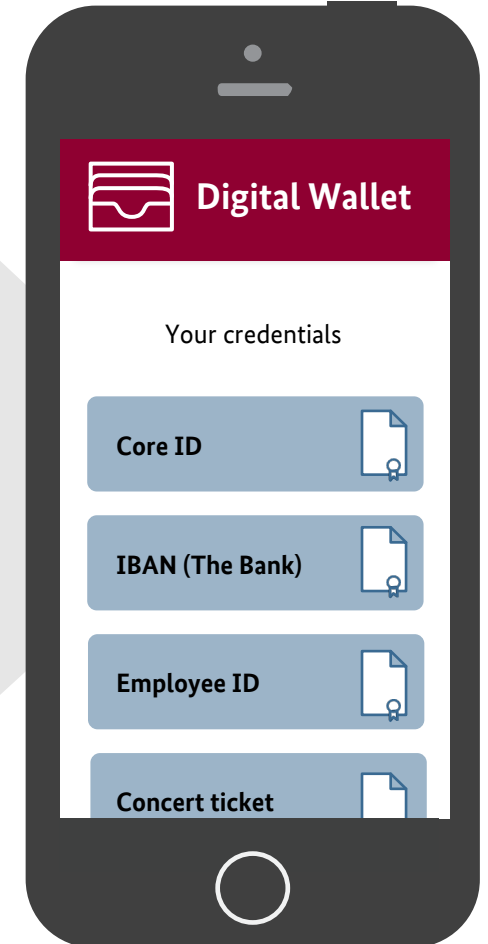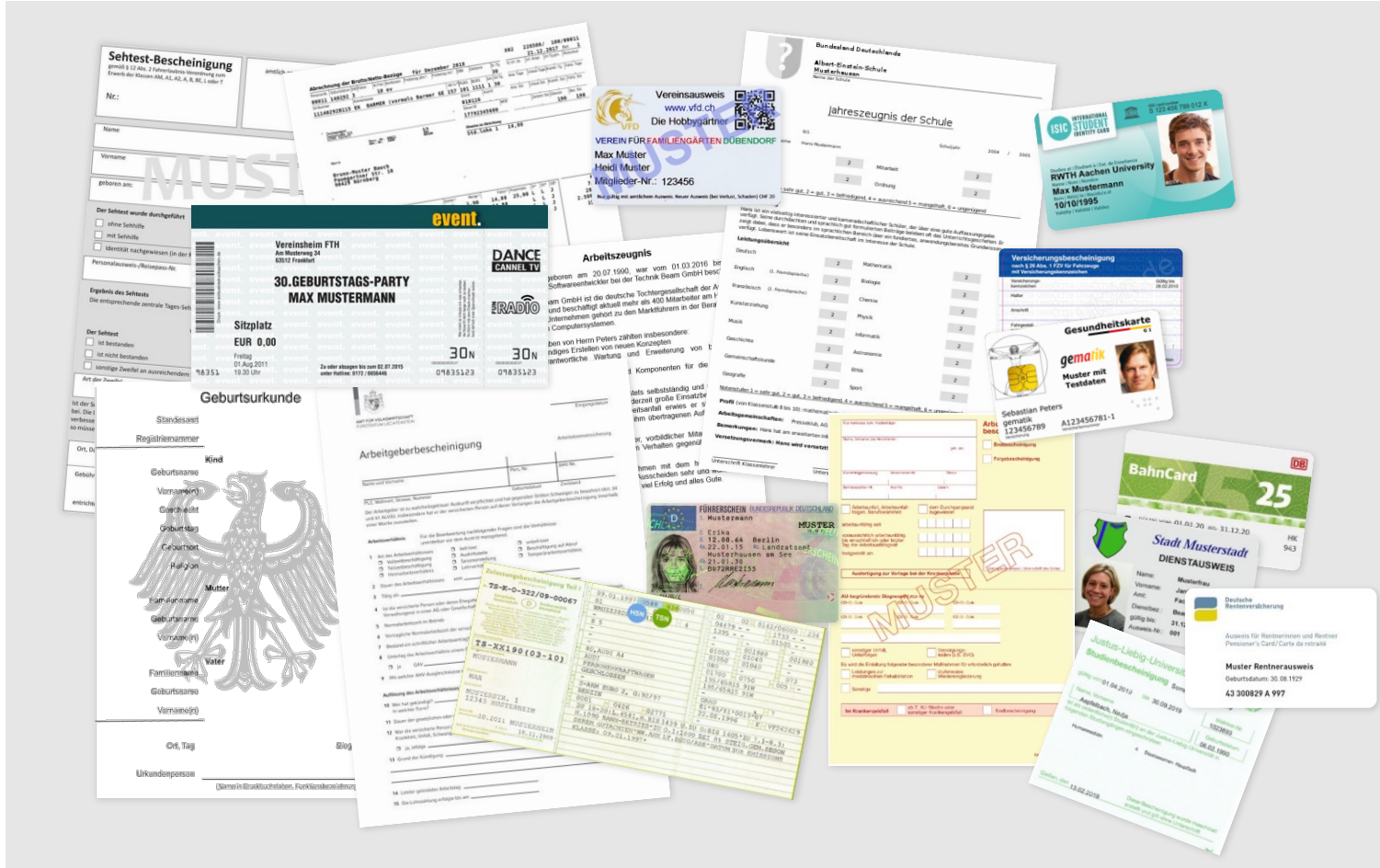
Die Bundesregierung

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Our vision is a European ecosystem of digital identities

Example of ecosystem use case

Would you like to apply for the apartment?

[EU flag] [share]

Digital Wallet

- ✓ **Core ID**
- ✓ **Confirmation of freedom from rent debt**
- ✓ **SCHUFA information**
- ✓ **Proof of income**

[EU flag] [share]

Die Bundesregierung

Vision

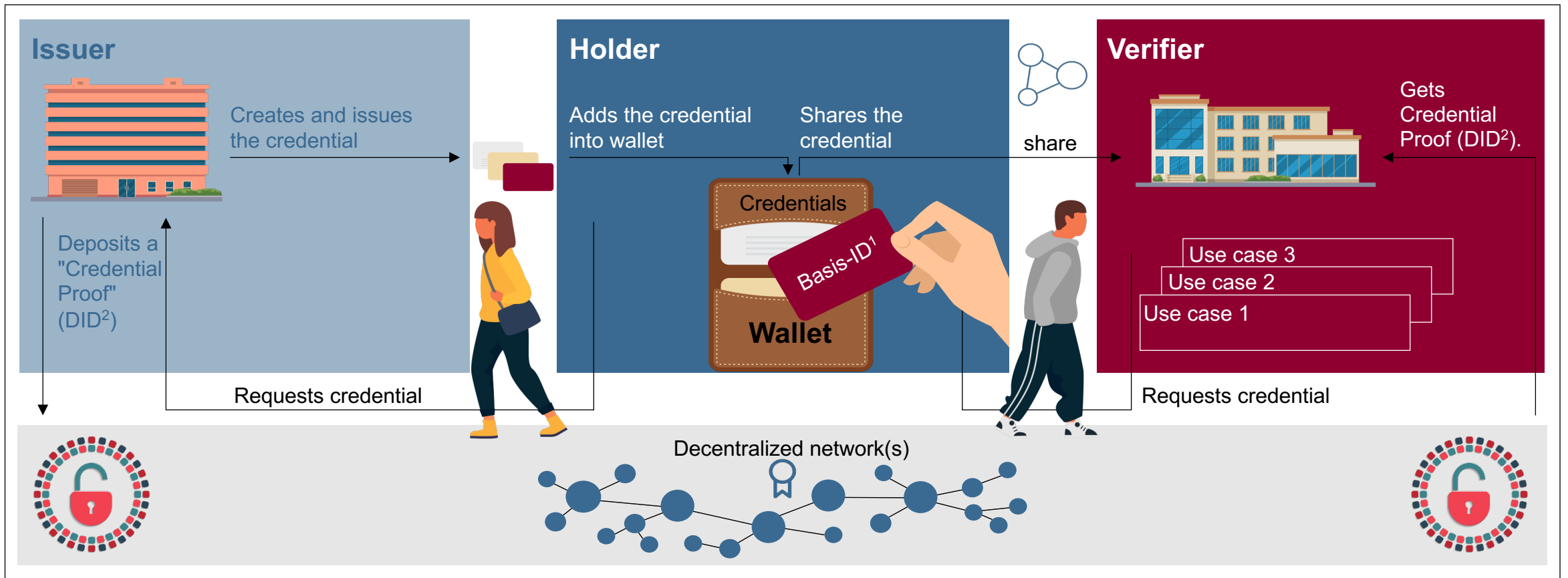A European ecosystem for the seamless, secure and verifiable exchange of credentials

The use of the ecosystem is linked to transparent organizational, legal and technical standards

It is an open, non-discriminatory ecosystem – anyone can participate as long as they are in compliance with standards

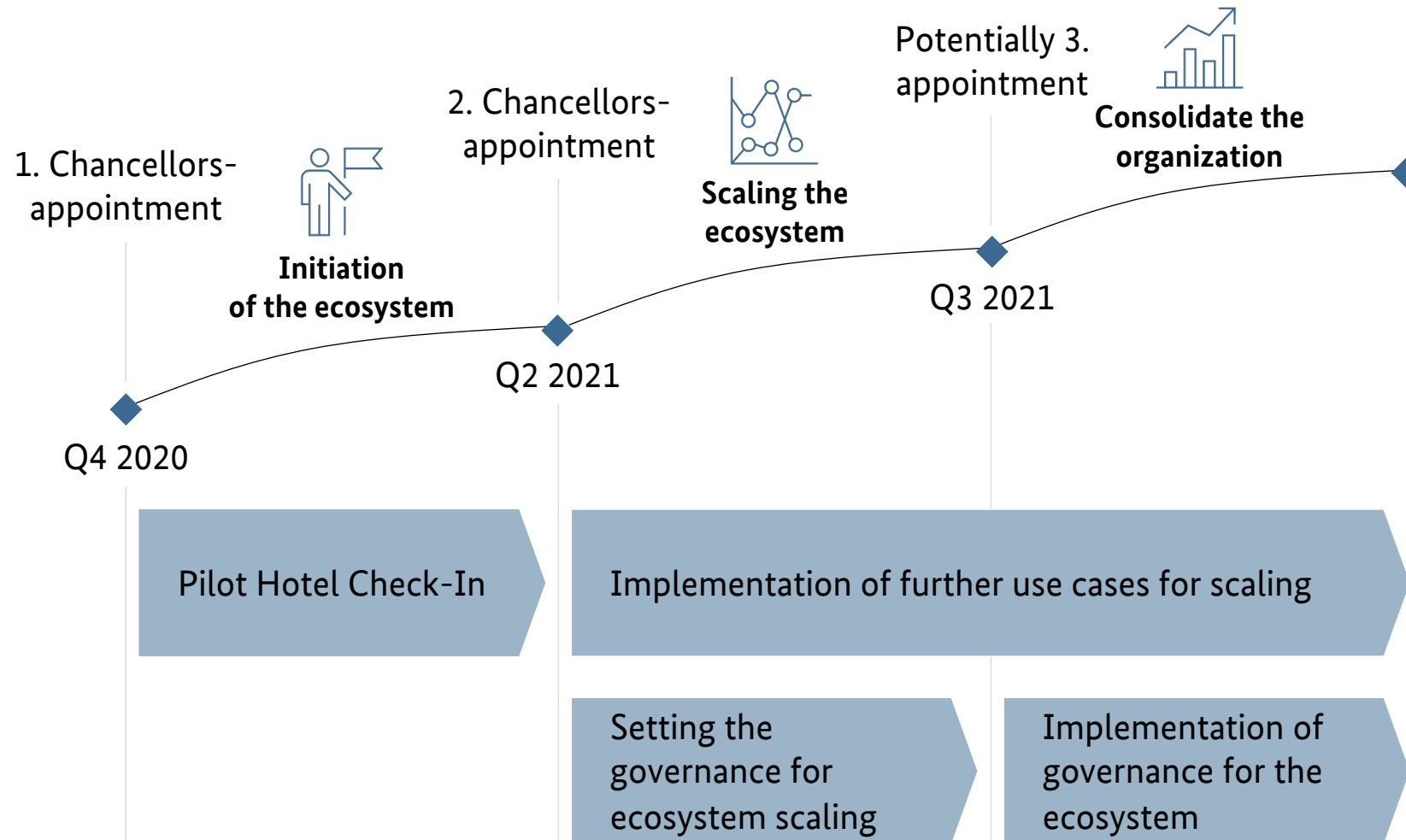Connectivity to the ecosystem is easy to implement, and easy to use for citizens and institutions

The basis for the ecosystem is the SSI approach – citizens in the center with full sovereignty over their own data

Die Bundesregierung

Issuer

Creates and issues the credential

Deposits a "Credential Proof" (DID[2])

Requests credential

Holder

Adds the credential into wallet

Shares the credential

share

Credentials

Basis-ID[1]

Wallet

Verifier

Gets Credential Proof (DID[2]).

Use case 3
Use case 2
Use case 1

Requests credential

Decentralized network(s)

In concrete terms, this means for the use cases that are selected within the framework of the project:

– Credentials are issued according to SSI standards

– Verification of the credentials should be carried out for the duration of the project via the SSI-based network provided by the project

– By using an SSI-based wallet, the holder/user is the only entity with full control over their own data

1. Derived from official German ID ("Personalausweis") or Unionsbürgerkarte, or electronic residence permit
2. Decentralized Identifier

After the implementation of the hotel check-in, further use cases are already being implemented

Potentially 3. appointment

Consolidate the organization

2. Chancellors-appointment

Scaling the ecosystem

1. Chancellors-appointment

Initiation of the ecosystem

Q4 2020

Q2 2021

Q3 2021

Pilot Hotel Check-In

Implementation of further use cases for scaling

Setting the governance for ecosystem scaling

Implementation of governance for the ecosystem

The **pilot for hotel check-in creates a first use case** in close cooperation between the Federal Government and the private sector

To **further scale the ecosystem, use cases from the** following areas are currently being implemented:

- Operational access management for internal/external employees
- Driver's license verification for fleet management
- Registration for prepaid contracts
- Customer account registration / recurring log-in for e-commerce
- Online account / securities account opening at banks

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EU-wide momentum for digital identity – fast cross-border implementation in preparation

Press release | 3 June 2021 | Brussels

Commission proposes a trusted and secure Digital Identity for all Europeans

The European Digital Identity framework

"Under the new Regulation, Member States will offer citizens and businesses **digital wallets** that will be able to link their national digital identities with proof of other personal attributes (e.g. driving license, diplomas, bank account). These wallets may be provided by public authorities or by private entities, provided they are recognized by a Member State."

EU commission publicly requested EU member states to establish a common **toolbox** by September 2022 **including:**

Technical architecture

Standards

Best practice guidelines