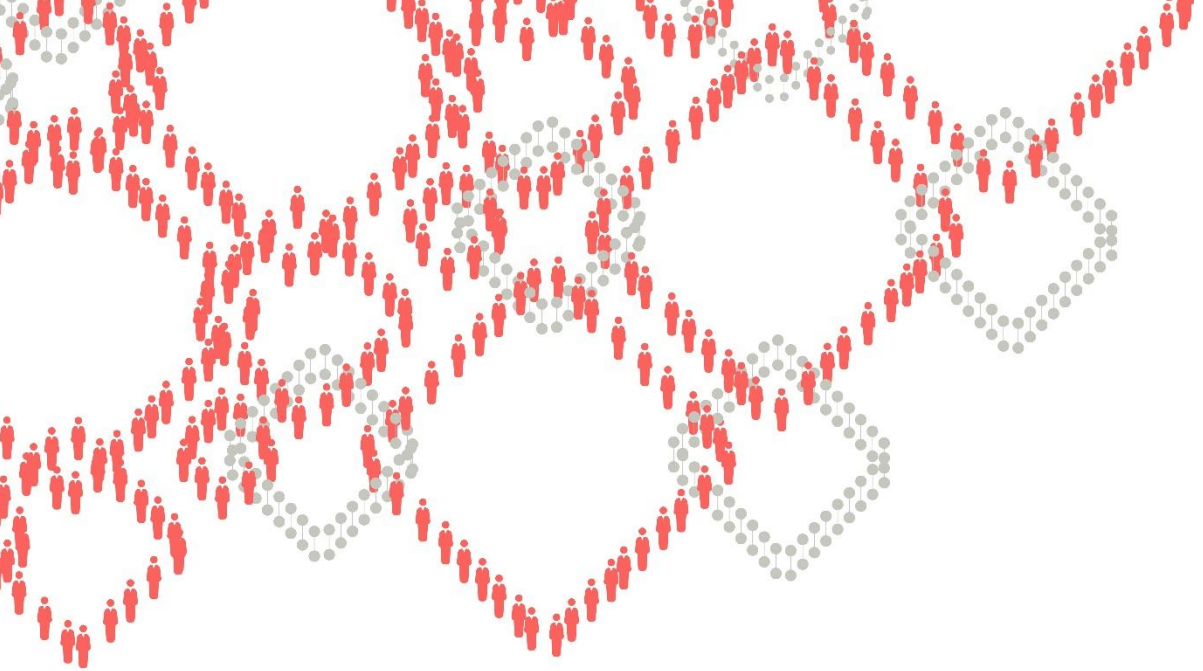


# e-Government as a Service

Was die Schweiz vom digitalen Estland für die Zukunft lernen könnte

Microsoft Praxistag für die öffentliche Hand  
Bern 25. Januar 2017



# The Issue with Identity

A Global Challenge

# Six Reasons for Identity

- A Fundamental Human Right
- Necessary To Access Basic Services
- Critical for Accountability and Governance
- A Gateway to Economic Opportunity
- Important for Gender Equality
- A Key Enabler of Global Development



Copyright: [www.jeffreyholmes.com](http://www.jeffreyholmes.com)

# UN Sustainability

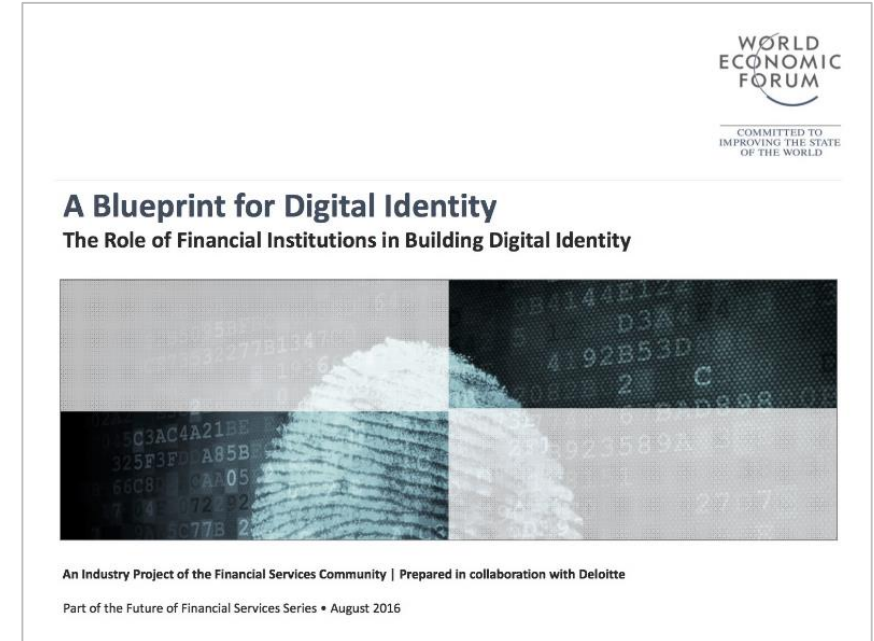
«By 2030, provide legal identity for all, including birth registration»

UN Sustainable Development  
Goal No. 16



# A Blueprint for Digital Identity

- Increasing Transaction Volumes
- Increasing Transaction Complexity
- Rising Customer Expectations
- More Stringent Regulatory Requirements
- Increasing Speed of Financial and Reputational Damage

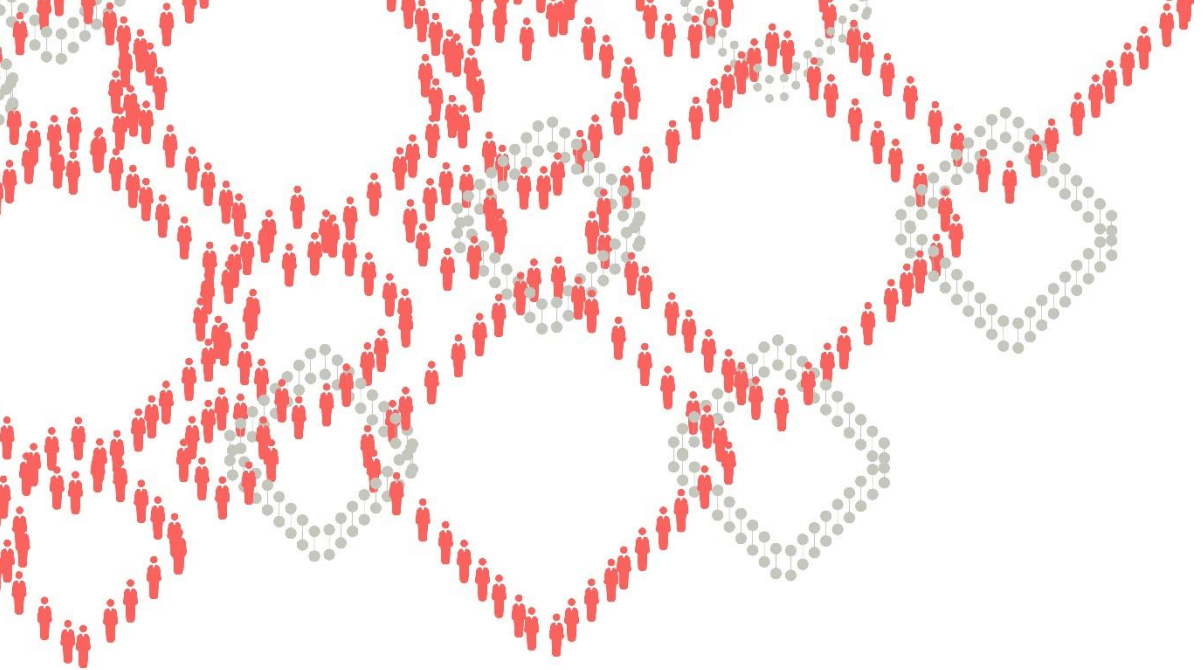


Copyright: World Economic Forum

# Identity Challenges

- Increasing Number of Online Accounts
- Outdated Digital Identities
- Concentration of (US) Data Collection
- Siloed eGovernment Solutions
- Internet of Things+20 bio Connected Devices by 2020



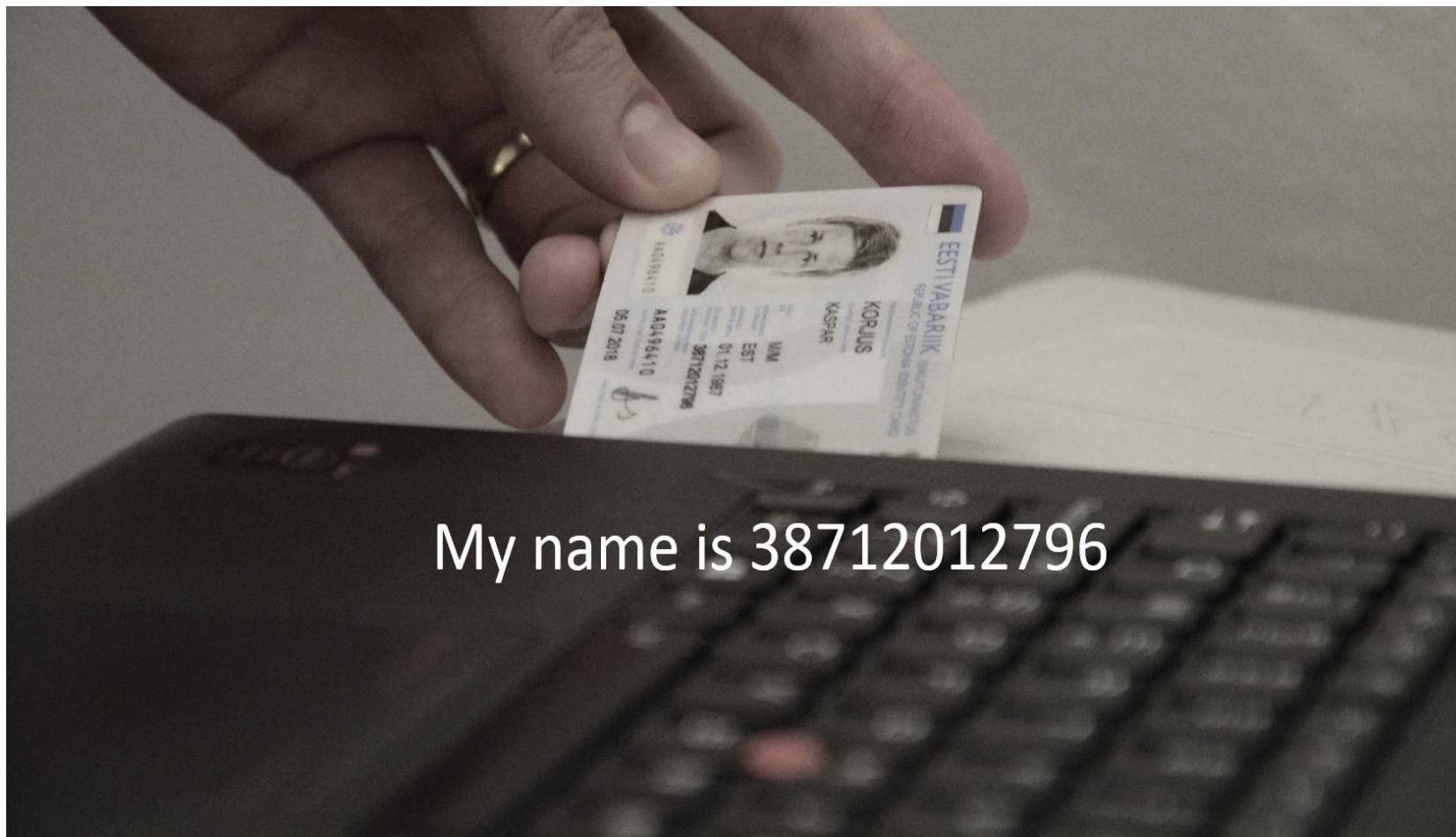


# e-Estonia

The Most Digital Society in the World



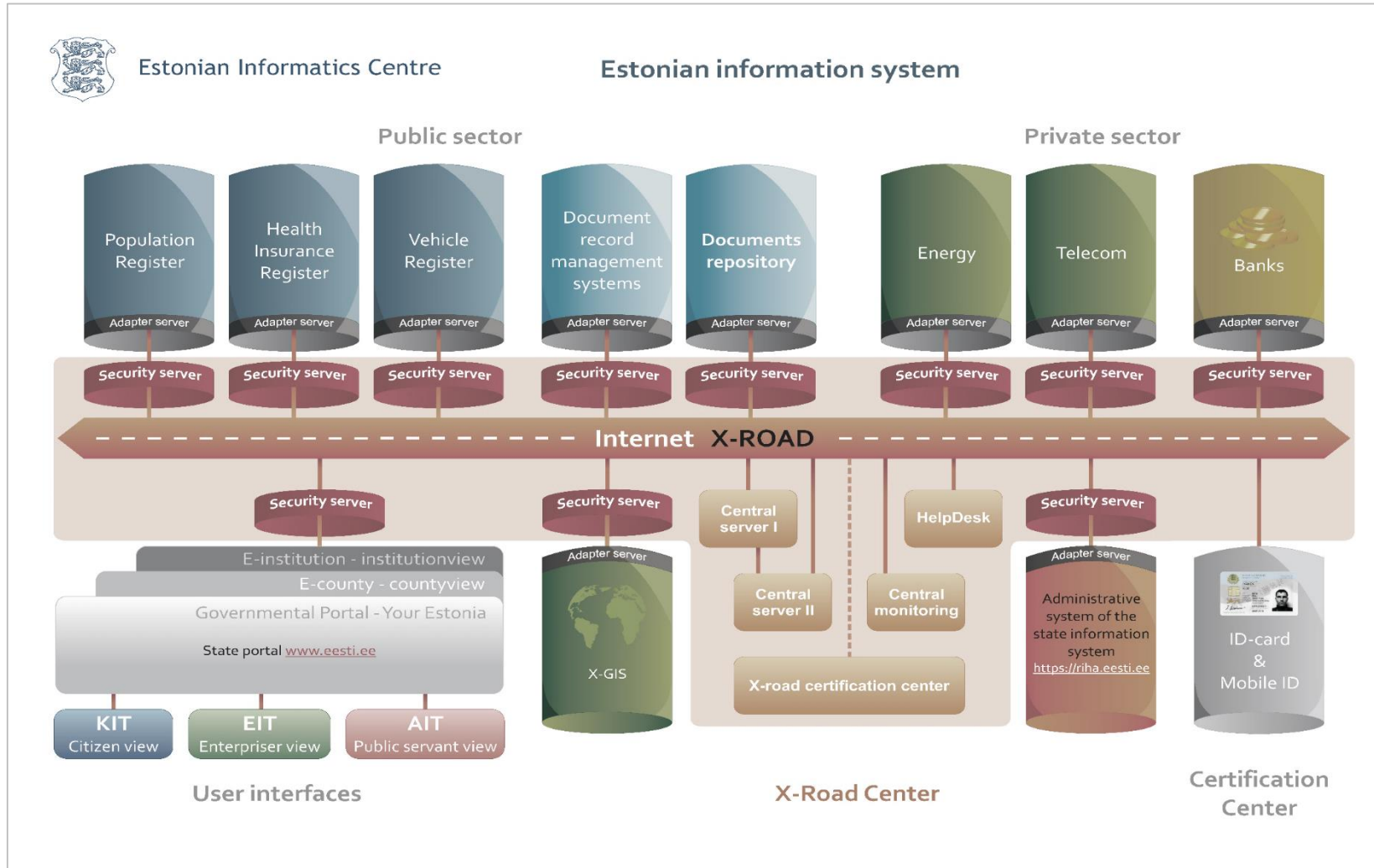
# Digital Identity in Estonia



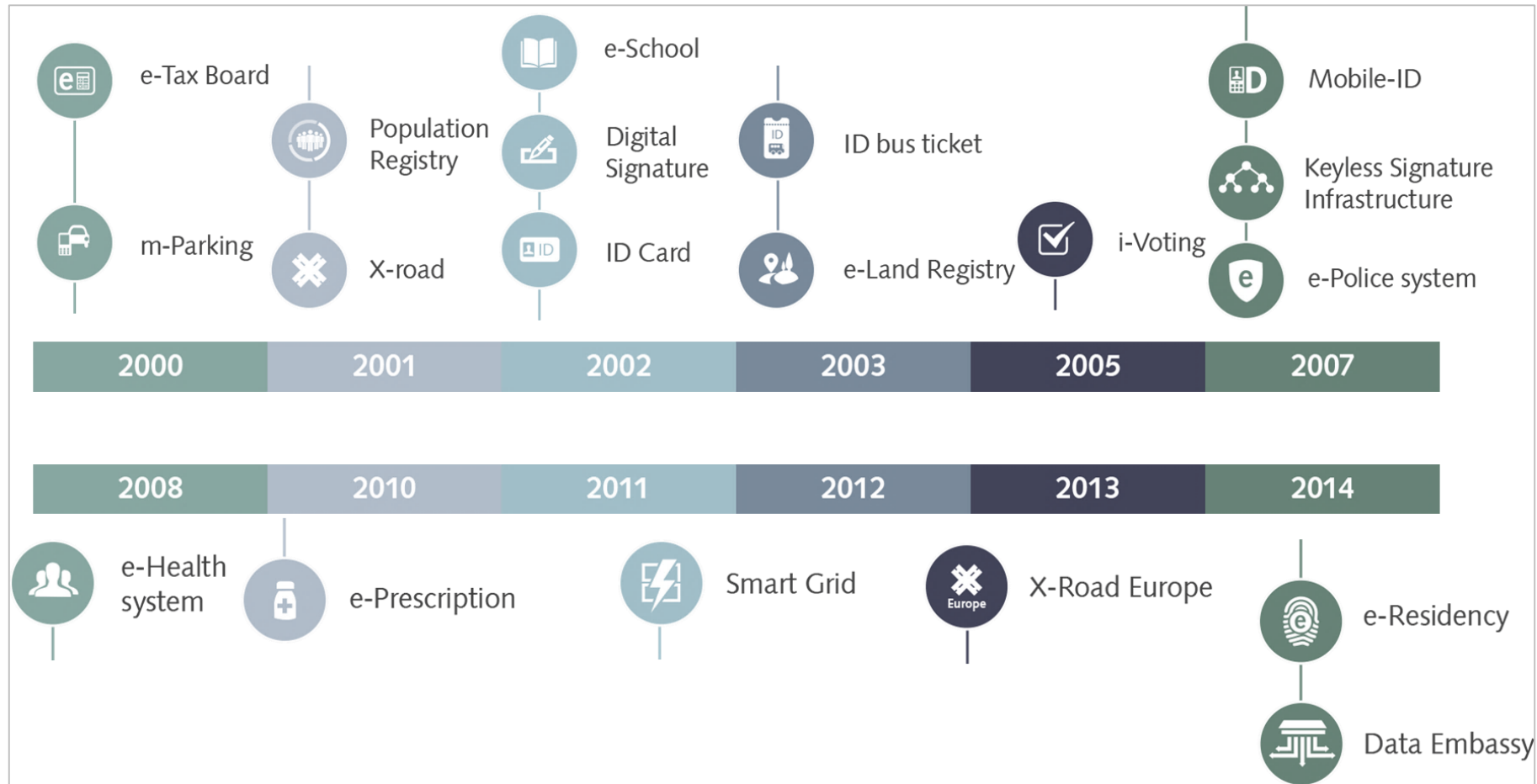
My name is 38712012796



# Dezentralized Infrastructure

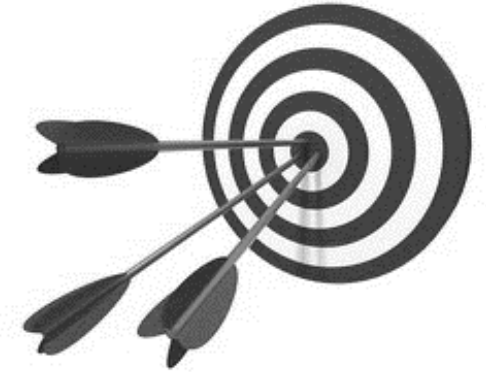


# A Roadmap to Success

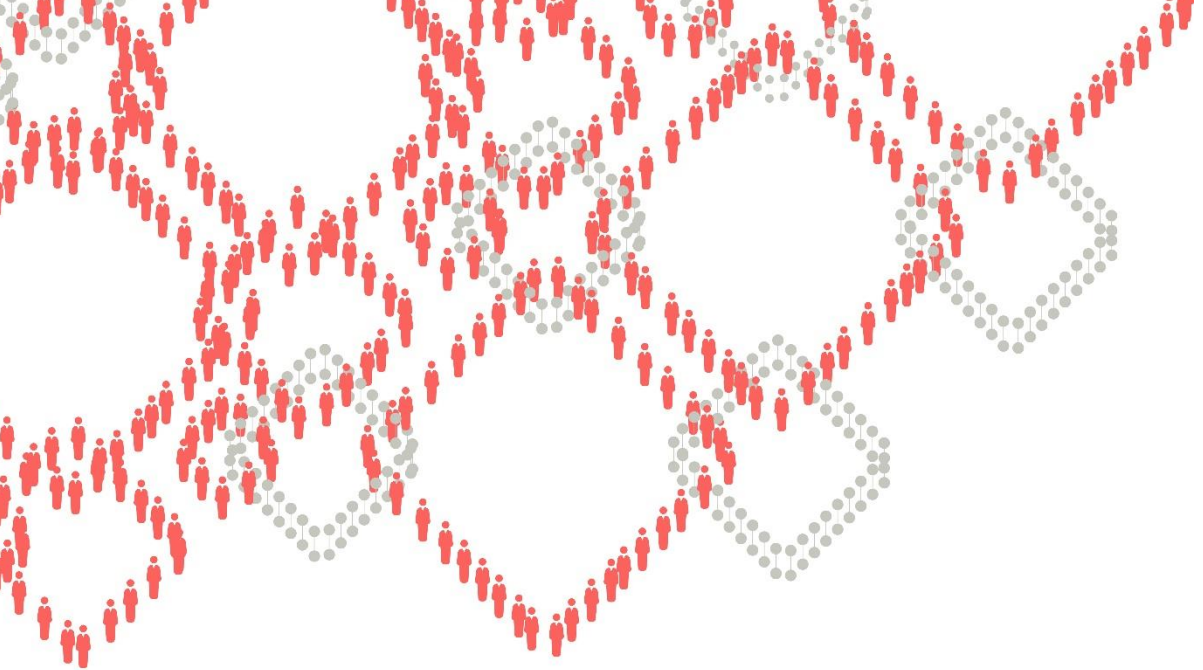


# Success Factors

- Clear strategy & timeline to introduce eID for every citizen
- Fostering of public-private partnerships
- Effective incentives to use e-gov services
- Efficient, user centric e-gov services
- Full political support for enabling technologies



**High User  
Adoption**



pro-civis  
e-government as a service

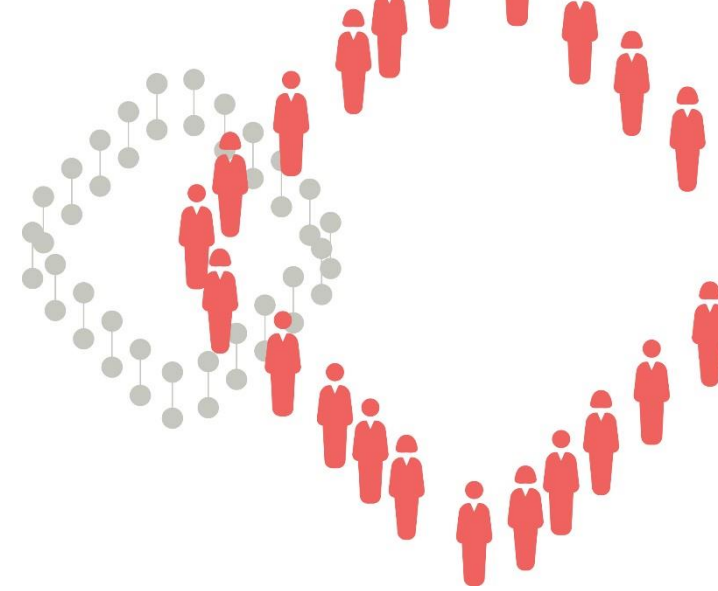
«The electric light  
did not come from  
the continuous  
improvement of  
candles»

Oren Harari

# Our Vision

«We empower citizens by providing eGovernment applications built around self-sovereign digital identities and personal data security»

pro civis: latin 'for the citizen'





# 4 Tech Building Blocks

## AUTHENTICATION

### Strong Two-factor authentication



2<sup>nd</sup> generation biometrics



PIN code

Trusted Execution Environment (TEE)

## TAMPERPROOF DIGITAL IDENTITY

### Cryptography

Information is encrypted and saved on device



Public key



Private key

Tamperproof crypto engine

Personal Data

Encrypted data container

### Blockchain

Data is timestamped, hashed, digitally signed and added to the blockchain



Valid transaction are encoded,...



...and data is preserved on P2P network

## USER CENTRIC INTERFACE

### Government App store



e-signature



e-ID card



e-voting



e-cabinet



e-services



e-law



e-police



e-welfare

## SELF-SOVEREIGN IDENTITY MANAGEMENT

### Privacy Engine

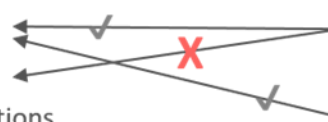
End user agrees which identity attributes are shared with third parties



Name

Age

Certifications



Third party 1



Third party 2