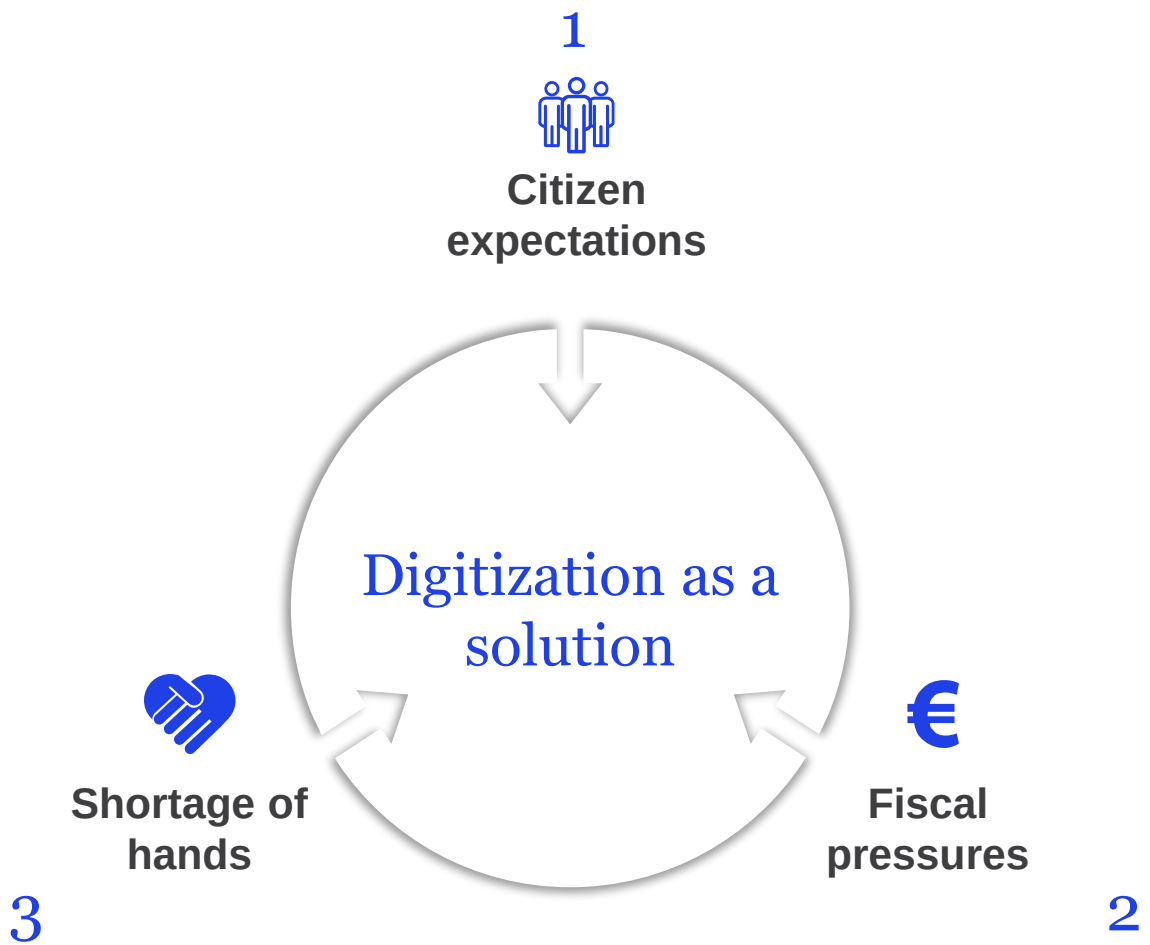
Digital/McKinsey

Role of Business in Creating and Supporting Digital Citizens

Talinn e-Governance Conference 2018

Presentation | 05-30-2018

Governments around the world are increasingly looking to digitization to solve a number of pressing issues



SOURCE: McKinsey research

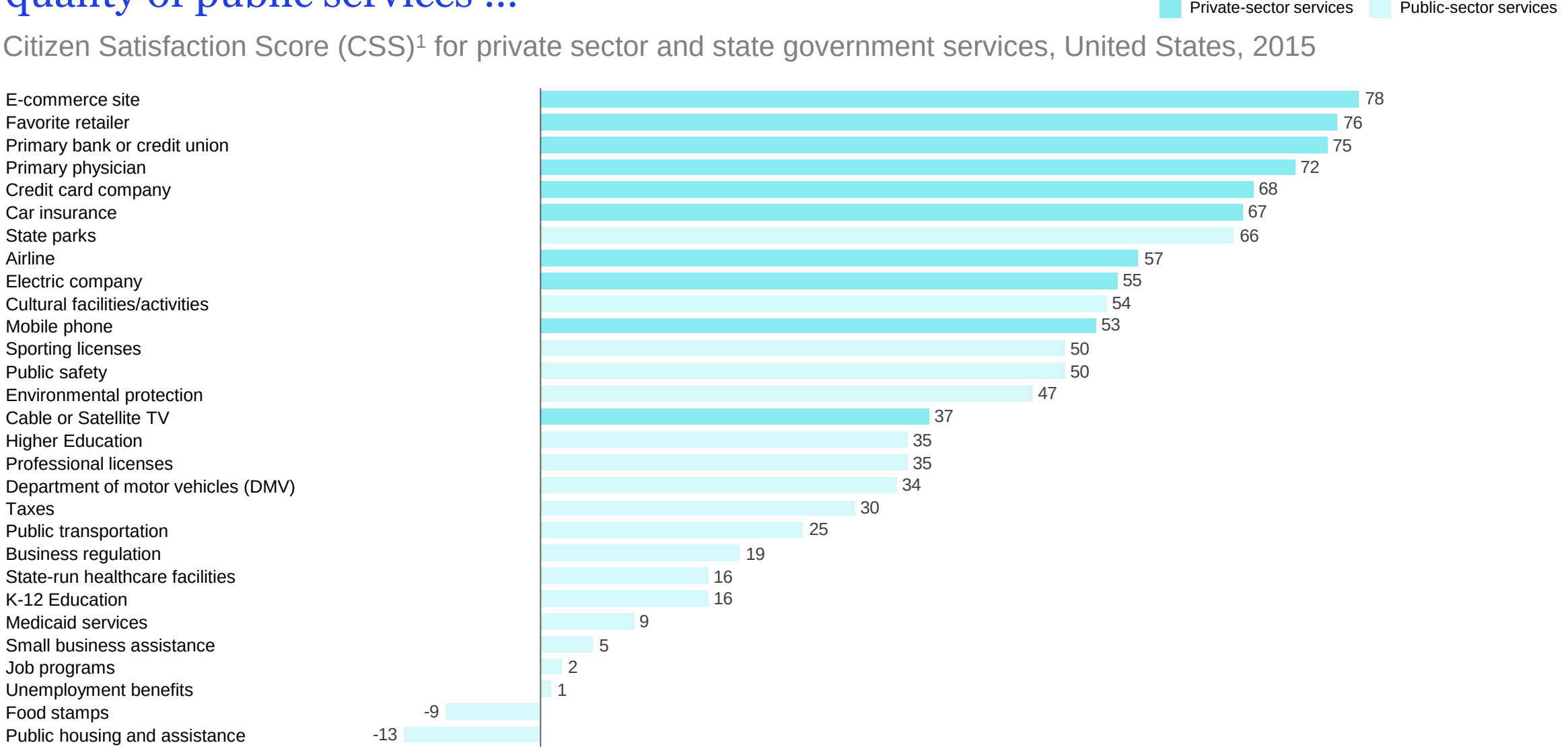
1 The public sector must keep up with the increasing technological demands and savviness of citizens

Citizens are going digital in the private sphere ...

... and expect the same from the public sector

2 Governments face pressure with citizens being relatively dissatisfied with the quality of public services …

Citizen Satisfaction Score (CSS)[1] for private sector and state government services, United States, 2015

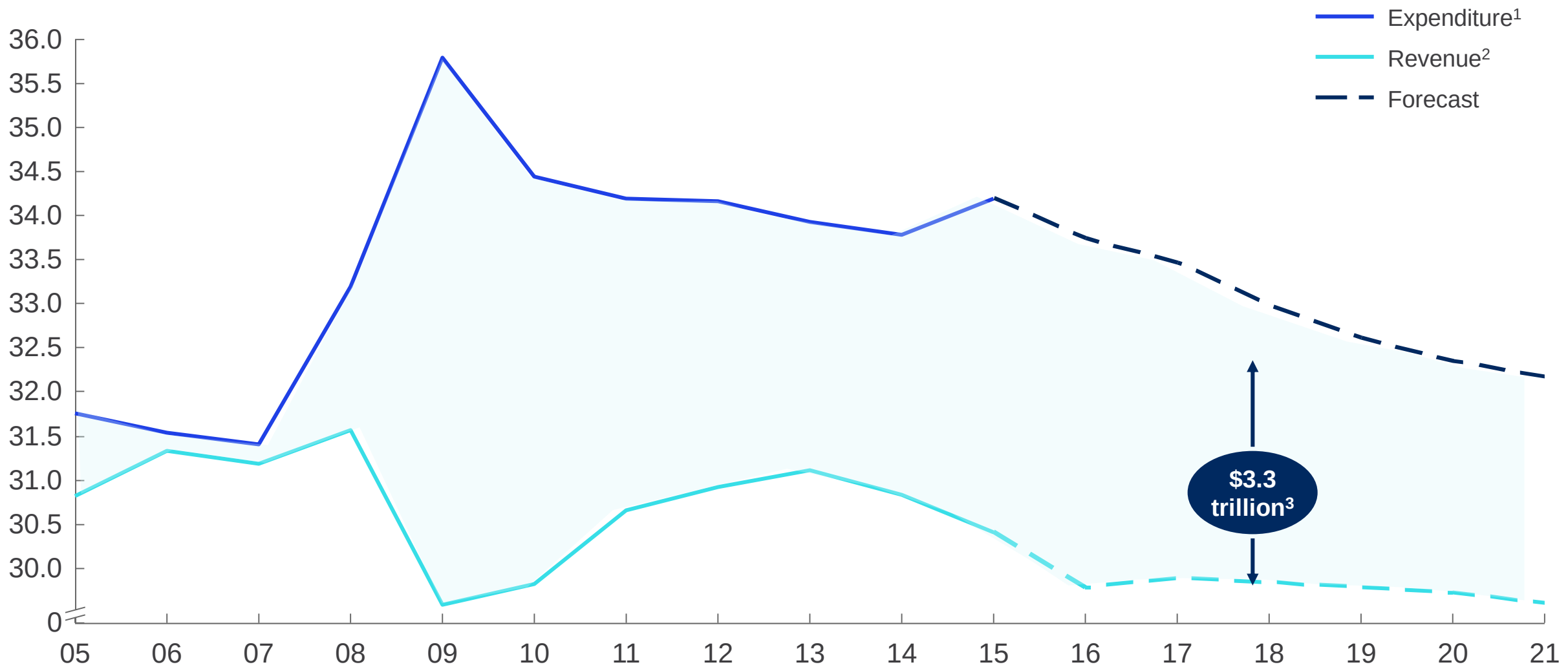


1 Share of citizens who are highly satisfied minus share of dissatisfied citizens

SOURCE: Putting citizens first, McKinsey Center for Government

2 … while a global budget deficit now and in the future also needs to be addressed

Total government expenditure compared to revenue 2005-2021, % of GDP

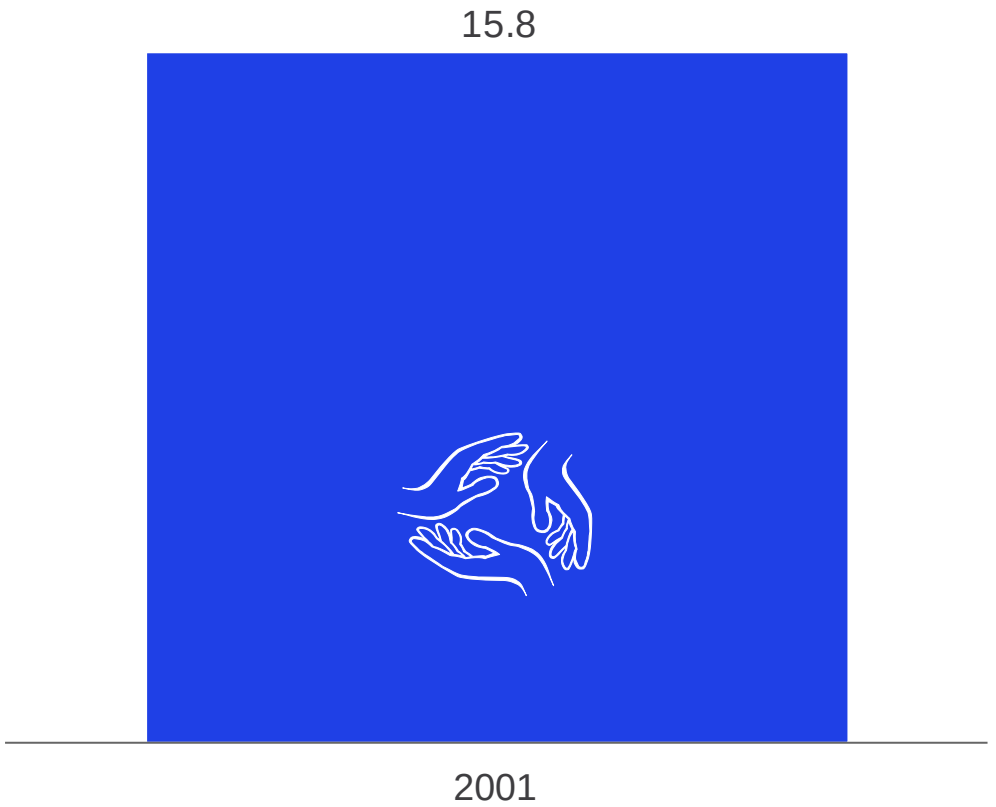


1 Government expenditure; data from 182 countries 2 Government revenue; data from 182 countries

SOURCE: IMF; OECD; McKinsey Center for Government analysis

3 Demographic developments are putting pressure on the workforce to sustain the non-working population

Share of the population +65 years, 2001 and 2017, percentage points



SOURCE: Eurostat

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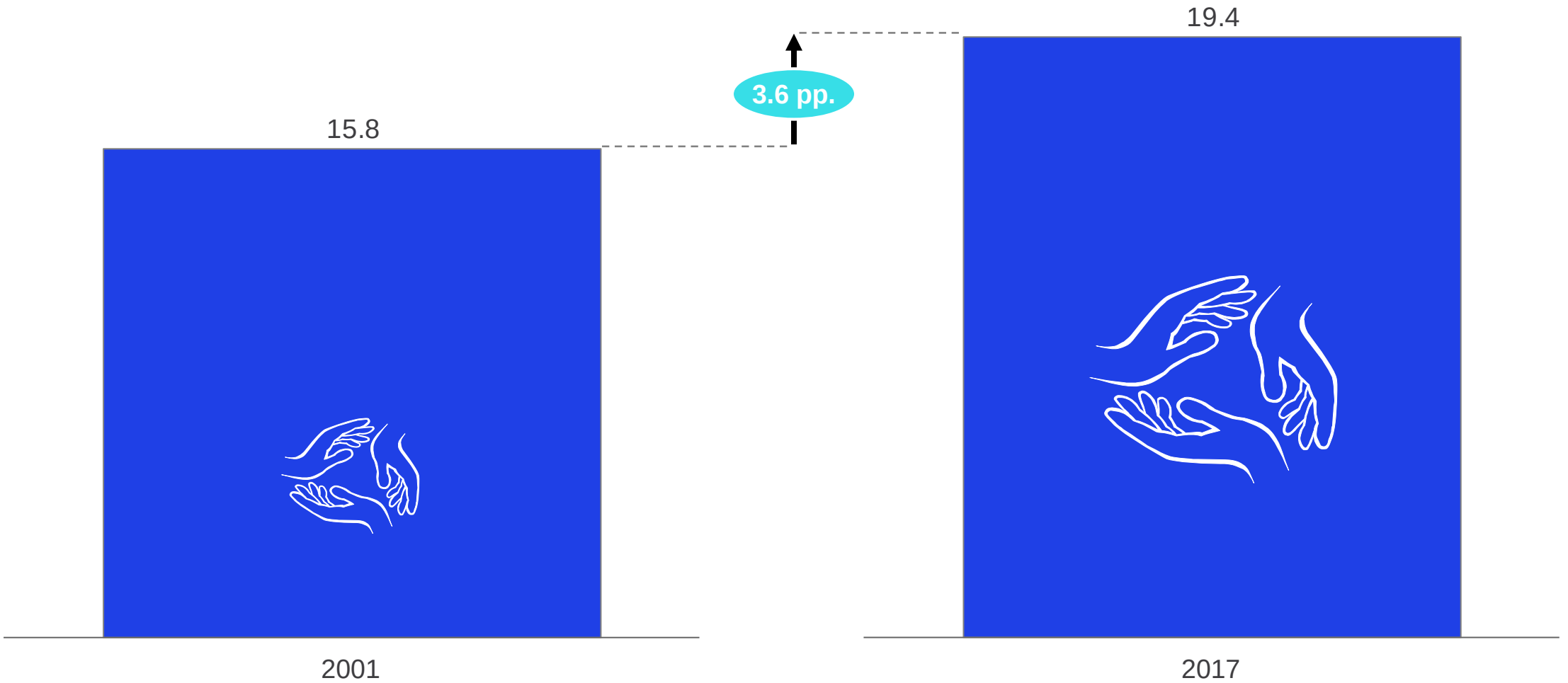


SOURCE: Eurostat

To resolve these issues, several governments around the world are developing national digitization strategies – but are they doing so optimally?

Countries are now developing digital strategies …

Digital Canada 150

A holistic strategy spanning from digital infrastructure to cybersecurity over market-related regulatory measures

Digital Roadmap Austria

An attempt of providing a coordinated approach to digitization including visions, but also specific measures

An overarching goal of providing a foundation on which all further activities can be built

Digital Strategy – Sweden

Policy-focused and aiming for sustainable digital transformation

This entails a particular focus on digital skills (reskilling, Future of Work) and digital security

2020 Go Digital Vision – Indonesia

The Indonesian Government has set targets for agriculture, SMEs, connectivity and tech startups as part of its digital economy plan

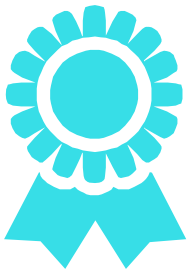
Especially focused on SMEs with a goal of eight million SMEs using digital technologies by 2020

… and two questions are key to answer in this regard

What does good look like?

How do governments leverage the private sector in bringing about a digital society?

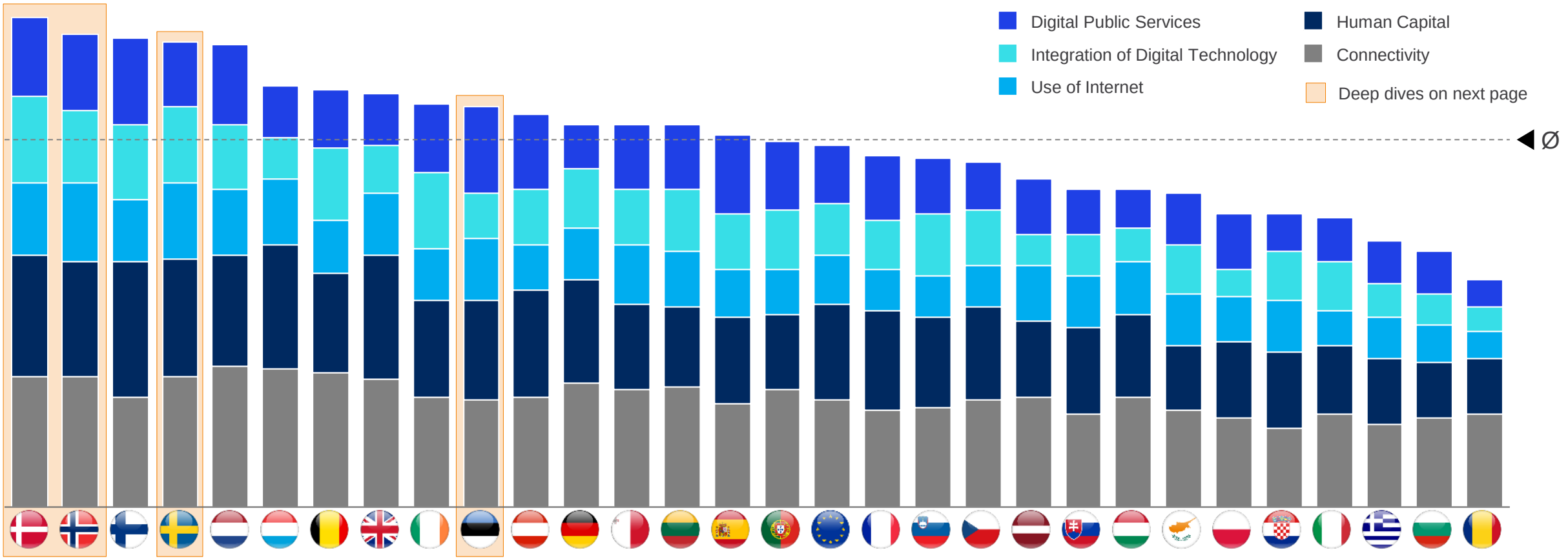
SOURCE: Agency and government websites



What does good look like?

Good practice within digitization is especially found in Scandinavia which outperforms the rest of Europe on nearly all parameters, and Estonia

Digital Economy and Society Index (DESI) ranking1, 2017



The Scandinavian countries **Denmark, Norway and Sweden** are **digital society frontrunners**

Estonia has the most digitally evolved public sector

1 Based on 5 factors: Connectivity, Human Capital, Use of Internet, Integration of Digital Technology, and Digital Public Services

SOURCE: European Commission

The digital frontrunners have successfully digitized across four key digitization factors

Deep dives on next pages

Key digitization factor				
Digital ID	**95%** *share of adults using e-ID* **~13** *transactions per identity per month*	**~85%** *share of adults using BankID (most used service)*	**~80%** *share of adults using BankID (most used service)*	**98%** *share of population with e-ID*
Digital mail	**91%** *share of population receiving Digital Mail from the public sector* **100%** *share of companies using Digital Mailbox*	**38%** *share of population with a digital mailbox*	**28%** *share of population with a digital mailbox*	*N/A*
Digitization of public services	**>2000** *# of government self-services centralized in one web-page*	**>1100** *# of government self-services centralized in one web-page*	**73%** *share of population using web for interacting with public authorities*	**99%** *share of all state services that are online*
Digital payments	**<5%** *cash share of value of payments*	**<5%** *cash share of value of payments*	**2%** *cash share of value of payments*	**99%** *share of bank transfers made electronically*

SOURCE: Danish Agency for Digitisation; The e-Governance Academy; company websites; Riksbanken; Norges Bank; European Commission; ID-porten.no

Deep-dive: Digital Post

- Mandatory to be able to receive Digital Post from the authorities
- Has same legal implications as physically sent documents
- Not only used by public authorities – a wide range of entities send mails to citizens via the system

Government

Public sector (healthcare, etc.)

Utilities

Insurance

Pension

Housing

Banks

Other

91%
of population receives digital mail from authorities

126m
sent letters from public authorities in 2017

2.3m
documents signed via digital mailbox

100%
of private companies receive digital post

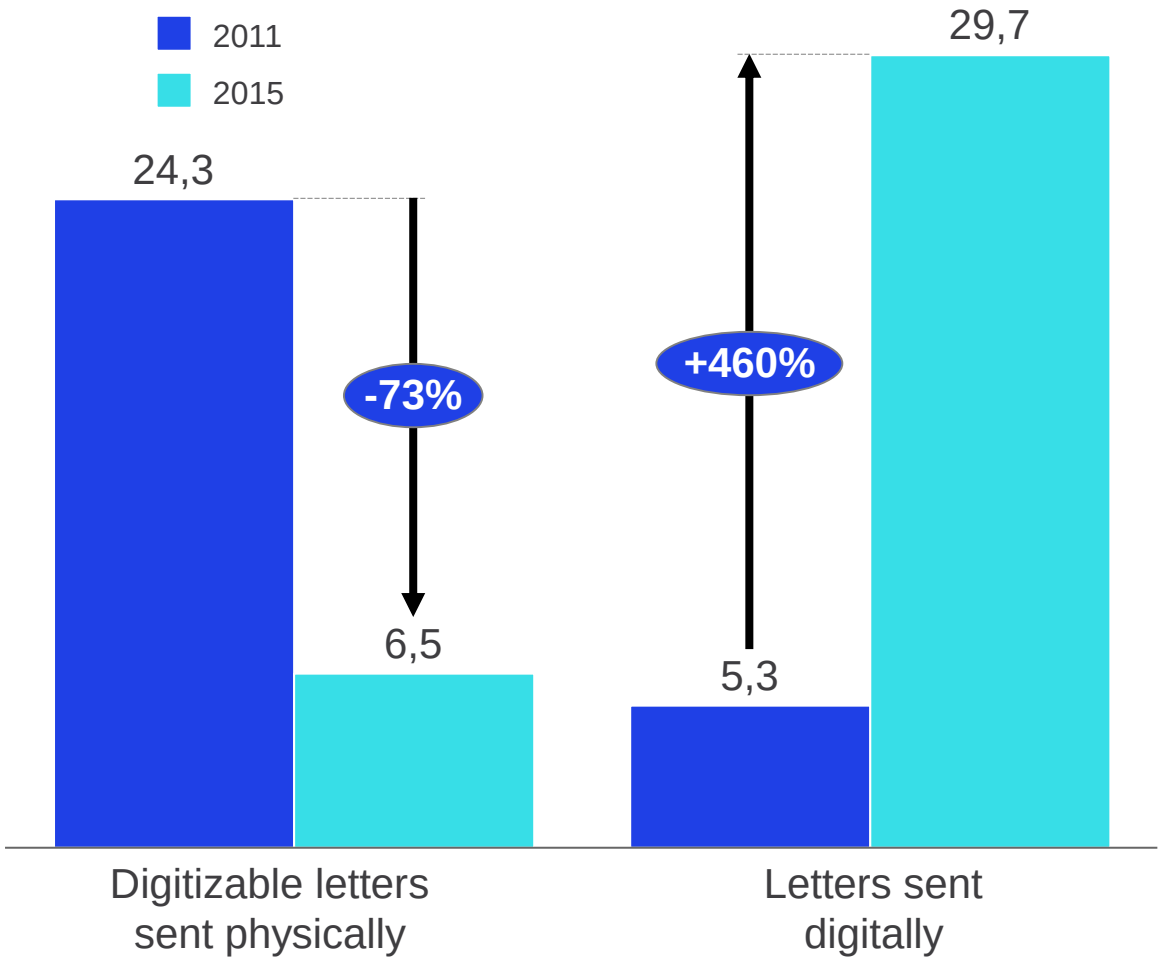
82%
satisfaction rate

SOURCE: Company webpage; Danish Agency for Digitisation

Deep-dive: Digital Post

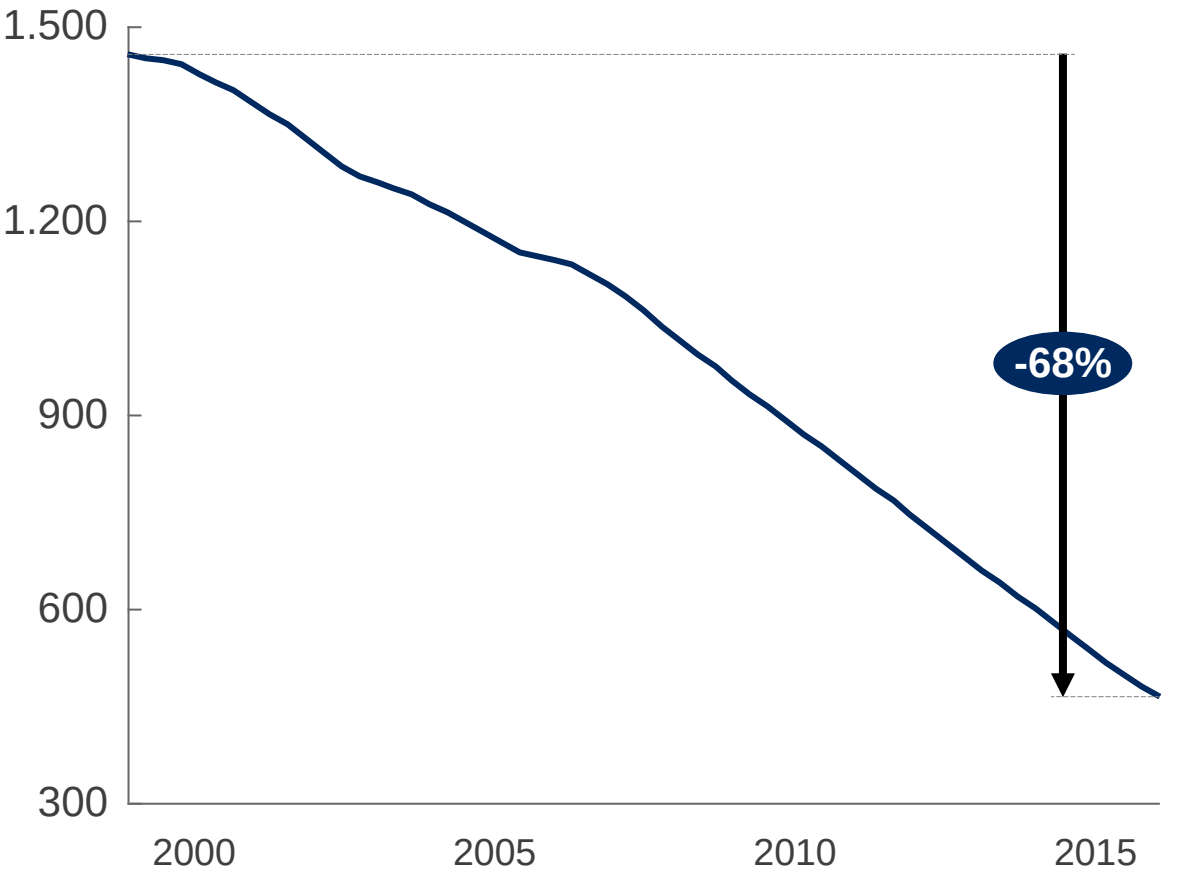
The digitization initiative has not only had effect within the public sector …

Number of letters sent from the state, million



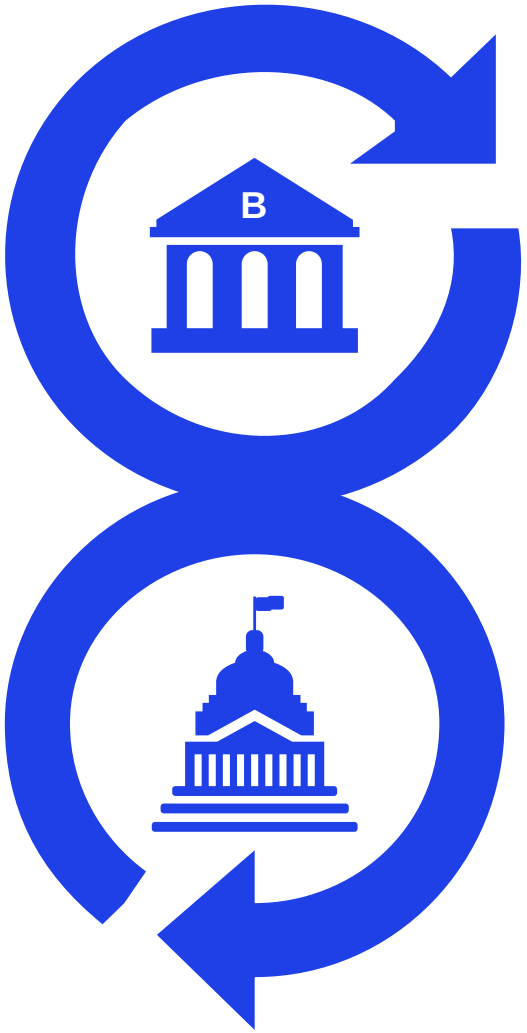
… but is also reflected in the general digitization of society where most letters are sent digitally

Total amount of letters delivered by Postal Service, million



SOURCE: PostNord; Danish Agency for Digitisation

Deep-dive: Digital ID in Norway



80%
of population uses BankID

84%
satisfaction rate

70%
considers BankID as a general sign-on for many things

100%
of Norwegian banks accept BankID

97%
considers BankID as simple and user-friendly

SOURCE: Company webpage

How do governments leverage the private sector in bringing about a digital society?

Often digitization strategies have a high level of public sector involvement in execution

Private sector Public sector

	Description	Involvement Typical setup
Initiate	Who initiates the digitization?	
Scope	Who is in the scope of the digitization?	
Finance	How is the digitization financed?	
Develop	Who is responsible for development?	
Operate	Who operates?	
Control	Who sets the regulatory framework?	

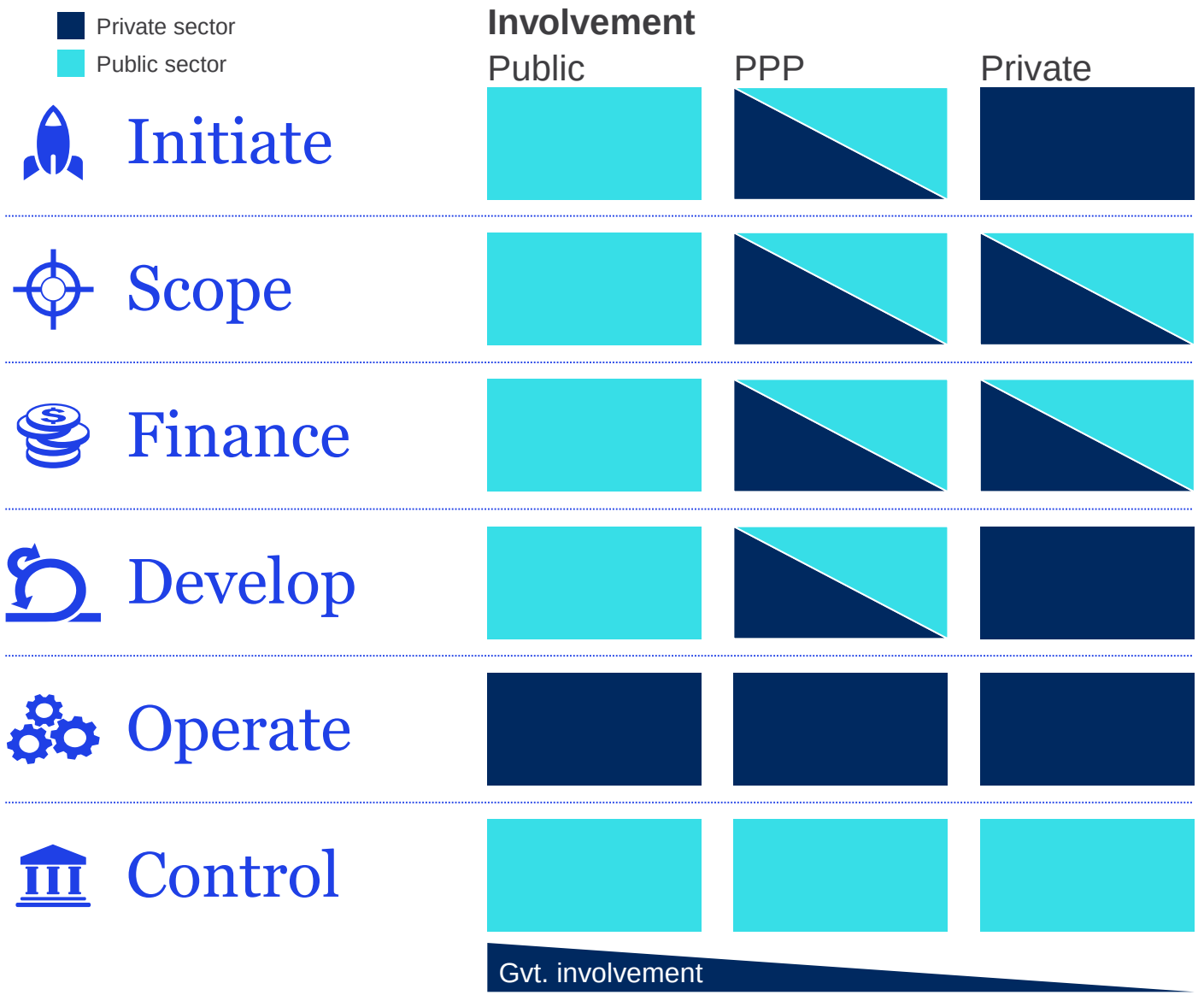
This approach puts governments in control and in a role to enforce enrolment and use, but it can be costly, slow and rigid

Private sector
Public sector

Involvement
Typical setup

- Government is in full control and can oversee and manage entire process
- Government is able to ensure that services are actually provided
- Possible to enforce enrolment into and use of e.g. digital ID
- Government bears full cost and risk
- Development is slow and rigid
- Approach is legalistic
- Customer is rarely at focus

Governments can pursue a more integrated and collaborative approach to leverage the private sector, including market dynamics



Deep dives on next pages

Public private partnership

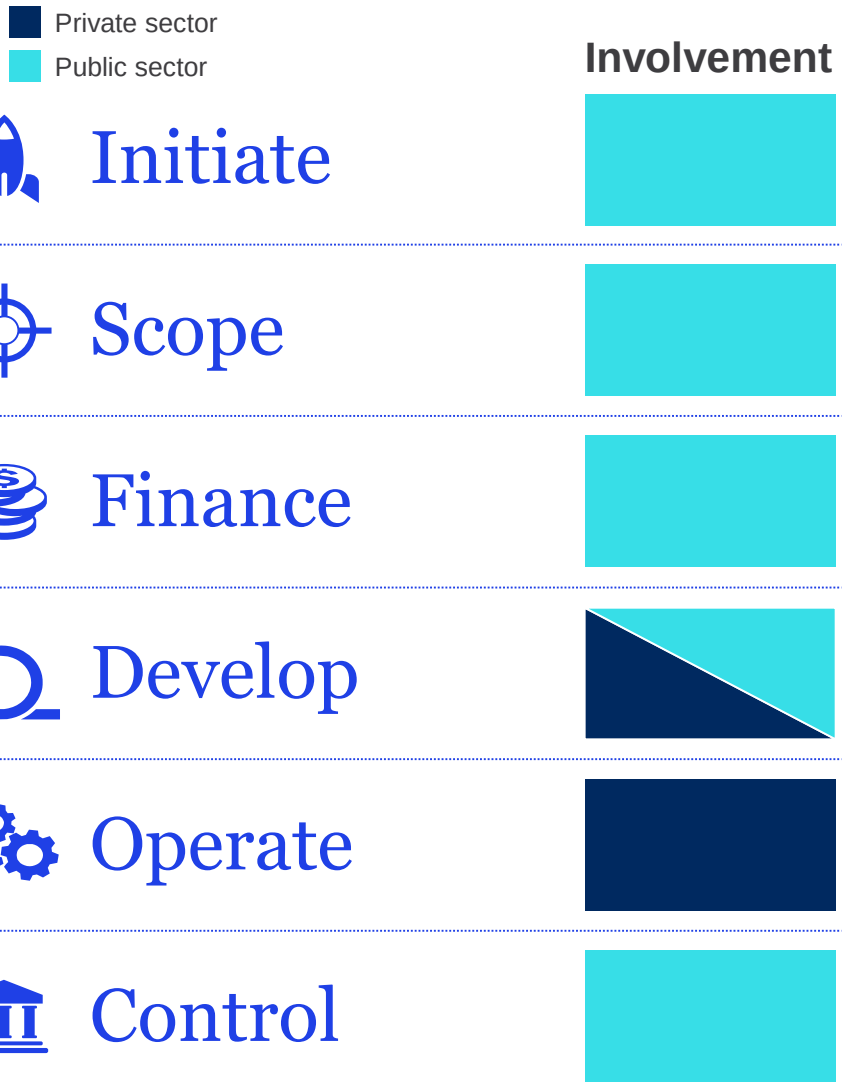
- Establish partnerships to share risk and cost
- Allow vendors to make a profit to leverage market dynamics
- Leverage synergies from shared digital solutions
- **Example**: NemID in Denmark

Fully private sector driven approach

- Let the market provide the full solution
- Provide a clear and flexible regulatory framework
- Buy from existing vendor
- **Example**: BankID in Norway

The first attempts of implementing a digital ID in Denmark failed due to too little market involvement

NEM ID



The initial solutions lacked uptake

- The first public digital ID solution in Denmark was initiated by the public sector, but **developed by TDC**, the biggest local telecommunications company
- The project focused unsuccessfully on **solving some of the key barriers**, including:
  - increasing standardization and interoperability (one signature across platforms)
  - increasing incentive to uptake

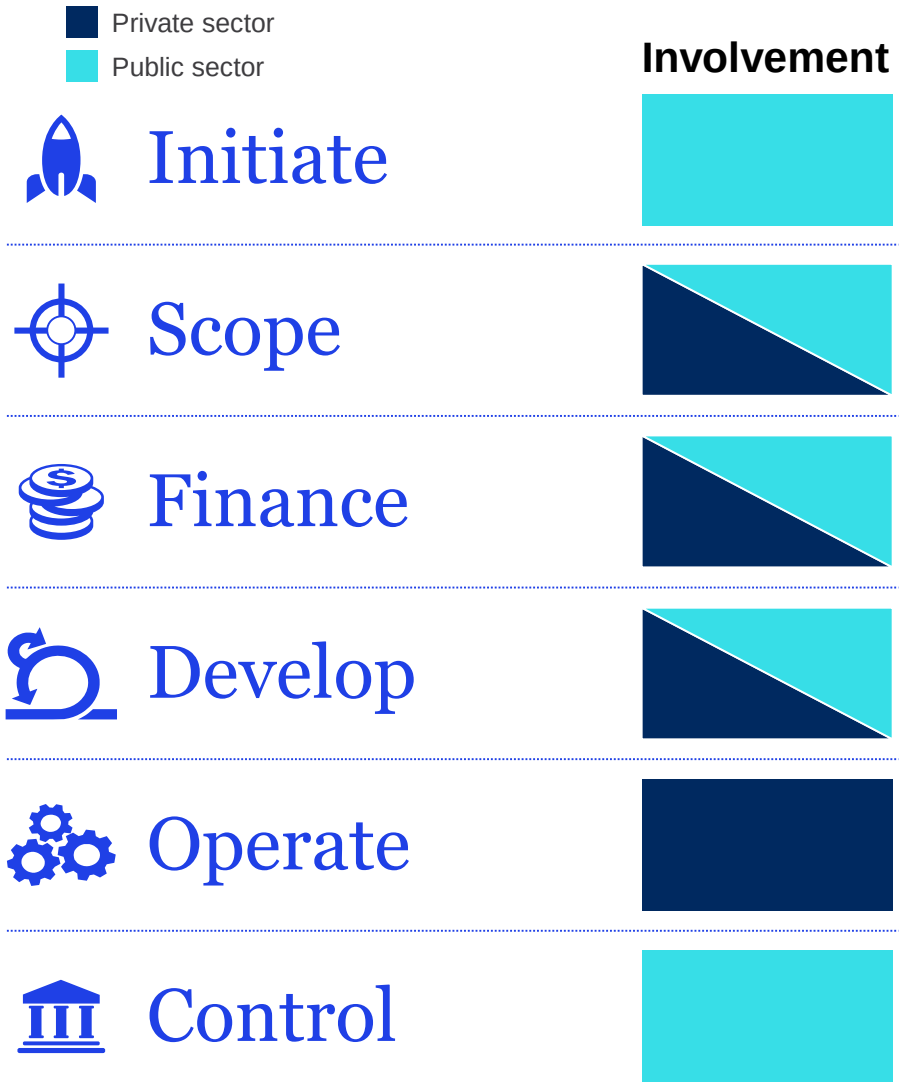
Main barriers

- Low degree of user friendliness - had to be installed on user harddisk
- Limited uptake due to small breadth of use cases
- Lack of interoperability

SOURCE: Danish Agency for Digitisation

This led the Danish government to pursue a public-private partnership approach by teaming up with the banking sector

NEM ID



Cooperation with banking sector

- Introduced in cooperation with the Danish banks
- Used for secure login within online banking, applying for benefits, receiving mail from authorities, engaging with businesses
- Consists of a user ID, a password and a code card/mobile app providing one-time passcodes – i.e. a two-factor authentication

Several advantages

- Co-financing – both initial cost and development
- Lent credibility
- High usage
- Focus on user friendliness

High uptake and use

95%
of adults use NemID

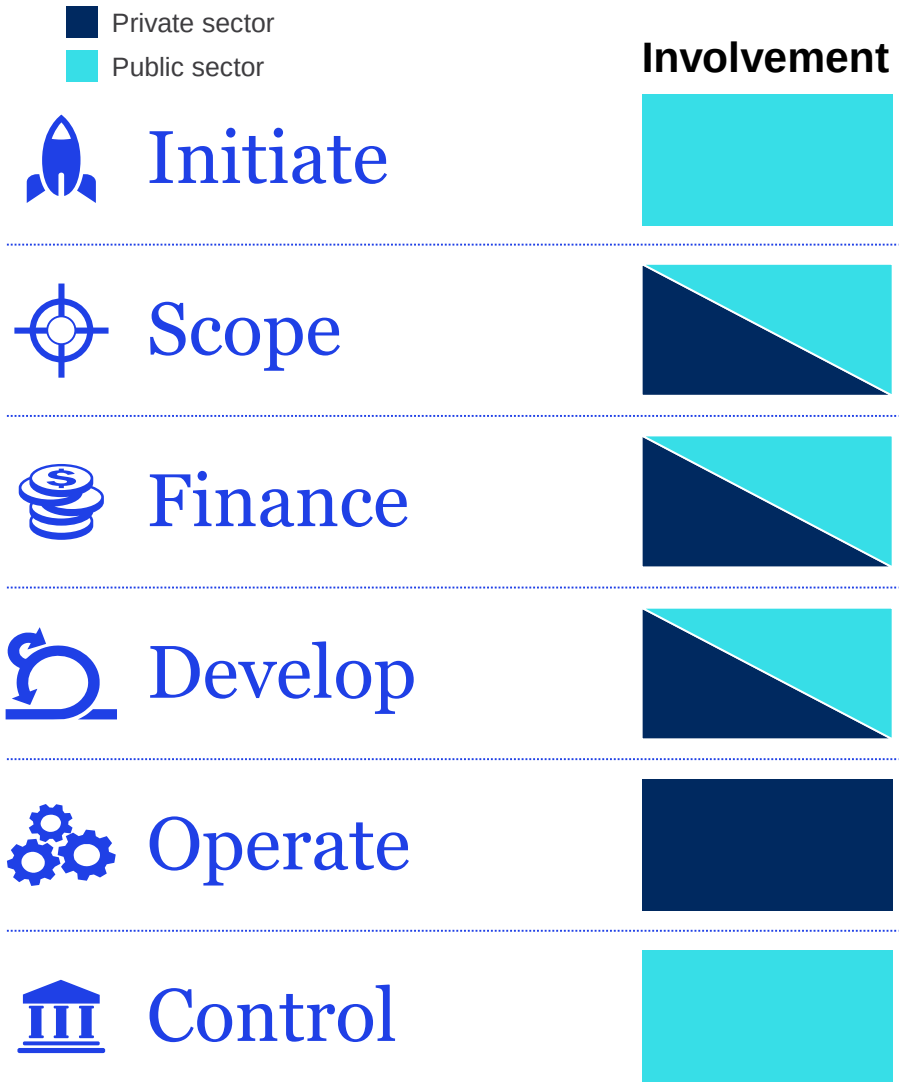
~13
transactions per identity per month

>500
service providers (public and private)

SOURCE: Danish Agency for Digitisation

The next steps involve expansion of the competitive features of the setup, but also an attempt to resolve certain issues

NEM ID



Next steps

- Today fully blown partnership running a tender – but now focusing on the back end introducing competition at the front end

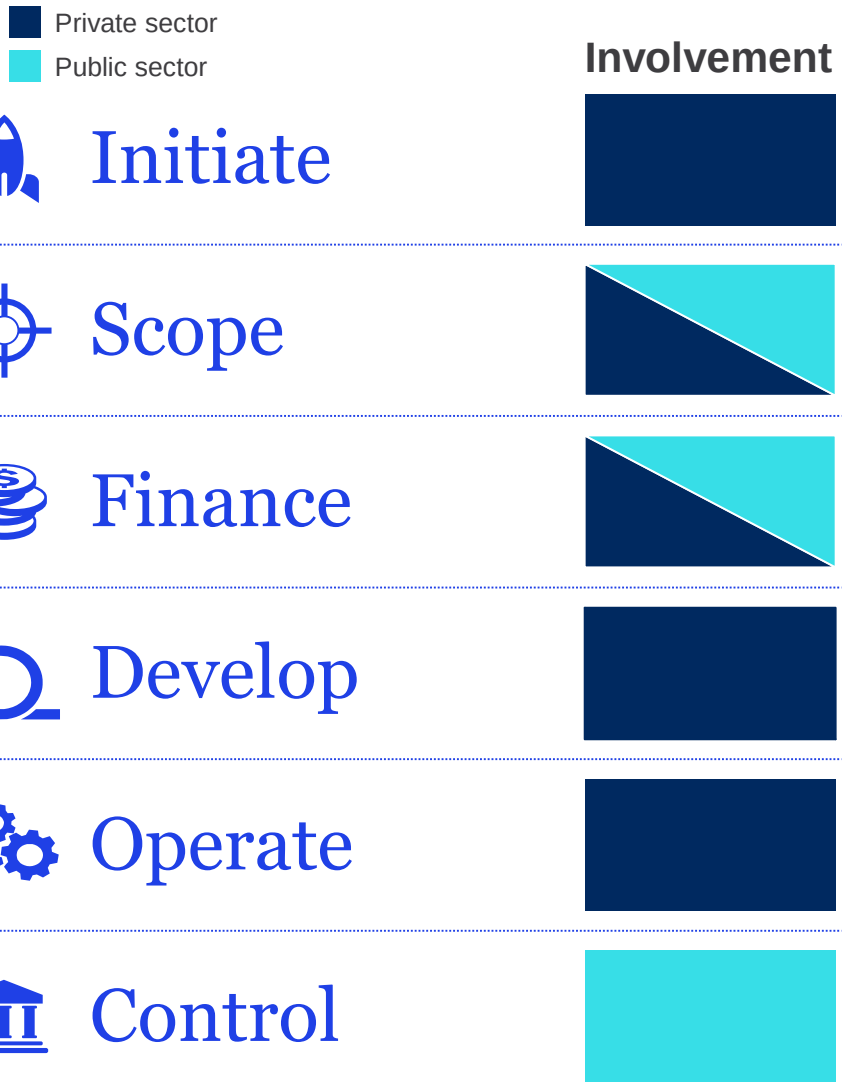
Issues to watch

- Governance can be slow and cumbersome – too many players that need to agree takes time

- De facto monopoly makes it a challenge to strike the right balance between regulation and competition

SOURCE: Danish Agency for Digitisation

In Norway, the eID solution was fully market driven and then used by public sector for digitizing public services



Fully market driven solution

- The Norwegian eID market has several players
- Of these, the largest is **BankID** – a cooperation between Norwegian banks starting in 2003
- In 2014, the eID was established under a P/L entity called BankID Norway AS responsible for operation, development, communications and sales to user sites

Accepted by Norwegian government

- The Norwegian state:
  - defines requirements for a digital ID
  - accepts several ID of which BankID is just 1 (also has own default ID)
  - has been quick to allow mobile and app based solutions
  - pays for the usage but has no responsibility for financing or developing the solution

Market dynamics are intense

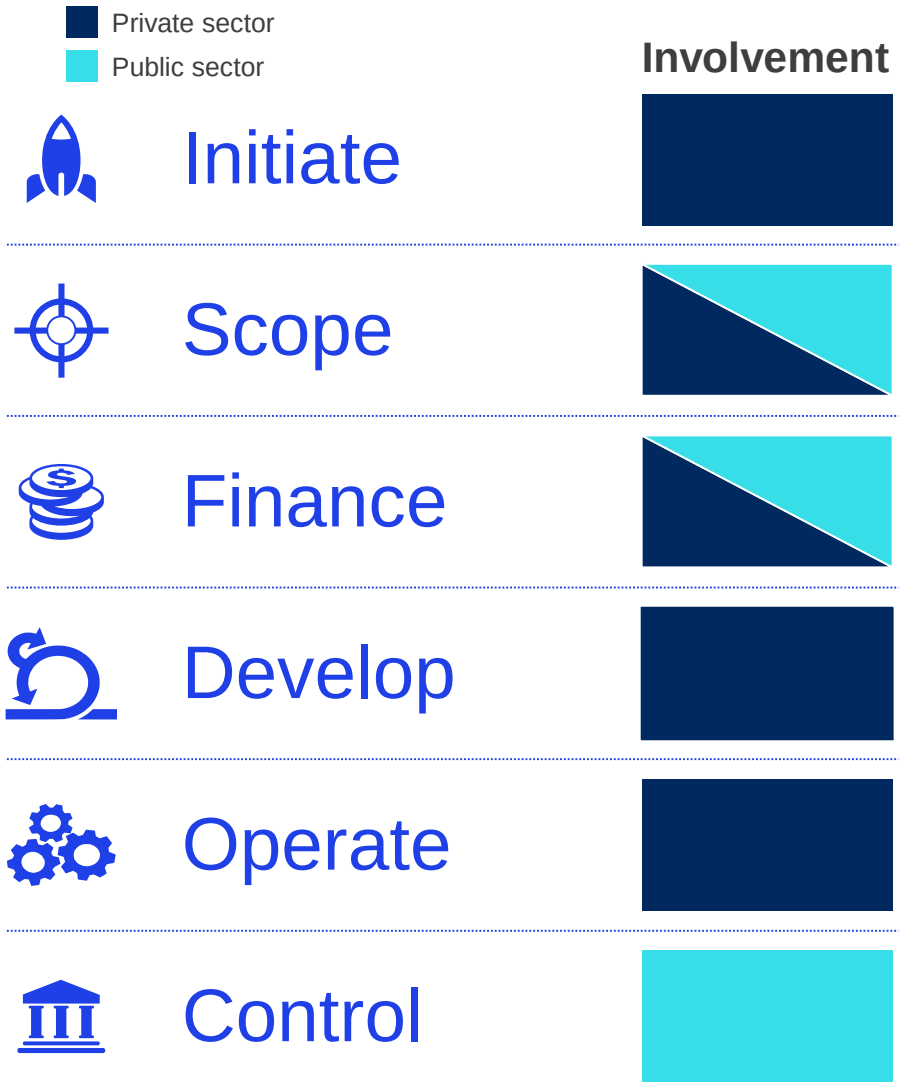
16
resellers of the BankID solution

>1m
users of mobile solution

SOURCE: BankID website

Example: Competition on ID-porten, common log-on solution for public services in Norway

By doing so, market dynamics and incentives were leveraged, enabling innovation



Market dynamics ensure innovation

- **Mobile solution:** Electronic identification and signature solution where security elements are saved on the SIM-card of the mobile phone or using an app – removing the need for a traditional code calculator
- **xID – easy log-on:** System enabling authentication on certain websites (corporations implementing xID) that require their identity to proceed. Built on unit recognition with an extra security system

Issues to watch

- Network effects are very strong – watch out for private de facto monopolies
- More messy picture for citizens with several different IDs
- Risk of commercial decisions closing or radically changing critical ID solution

SOURCE: BankID website

Summing up – what can government do in digitizing the society?

1 Establish public-private partnerships

- Invite private sector players into the process at an early stage
- Allow vendors to make a profit in order to create strong incentives for development
- Be ready to pay for the services – government has a strong interest in furthering strong and widespread digital IDs, secure mail boxes etc.

2 Enable the market

- Allow existing digital IDs for low security transactions
- Provide clarity about requirements for high level of assurance
- Have clear and quick procedure for accrediting new suppliers
- Have clear and quick procedures for accepting new technologies

BACKUP

Deep-dive: Norway BankID, fully private

bankID

bankID på mobil

xID av BankID

Mobile solution

- Electronic identification and signature solution where security elements are saved on the SIM-card of the mobile phone
- Removes the need for a traditional code calculator

Easy log-on (1 or 0 clicks)

- Enables lower security log-on without username and password
- Uses entity recognition

By leveraging market dynamics, BankID has been able to be the technological frontrunner in the European eID sphere, continously innovating and expanding its portfolio of products