



Accelerating the creation and deployment of e-Government services by ensuring Citizen's Privacy, Security, Convenience and Trust

Frédéric Trojani, Chairman Secure Identity Alliance

SDW 2013, 23rd May



# 1

## The economic value of digital identity



# Today's world is connected

- **6.8 Billion Mobile Subscribers**
- **2 Billion Internet Users (Most Are Mobile)**
- **50 Billion Connected Devices**

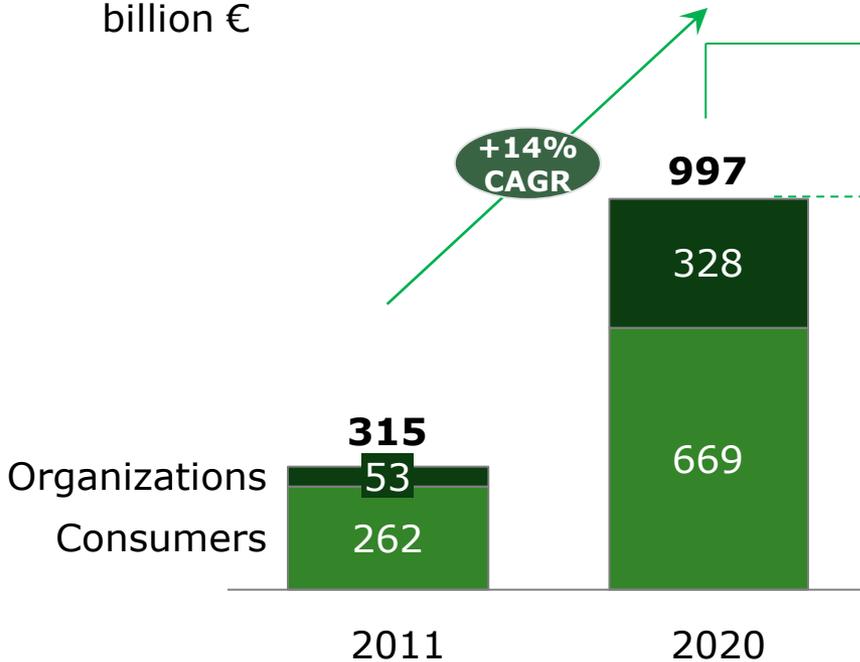




# Digital Identity can be a key growth driver in an overall stagnant European economy

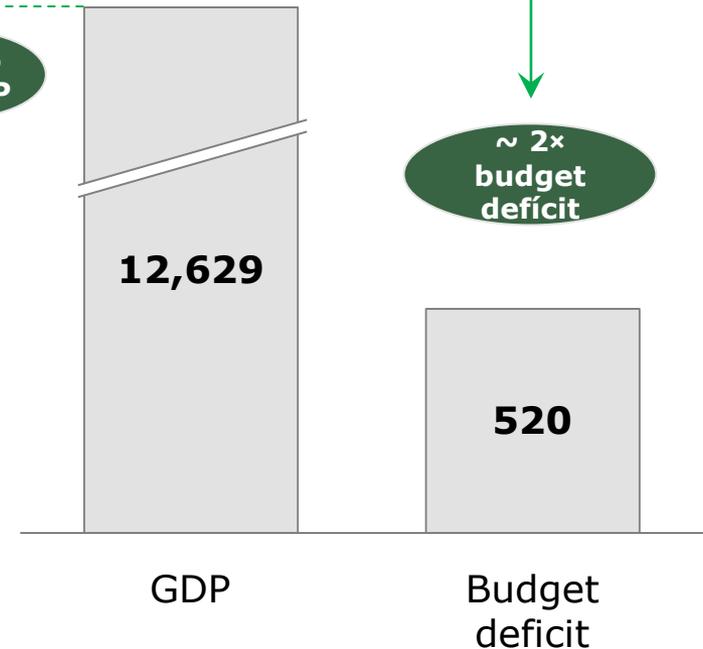
## Digital Identity value

EU-27 in 2011 and 2020, billion €



## European economy

EU-27 in 2011, billion €



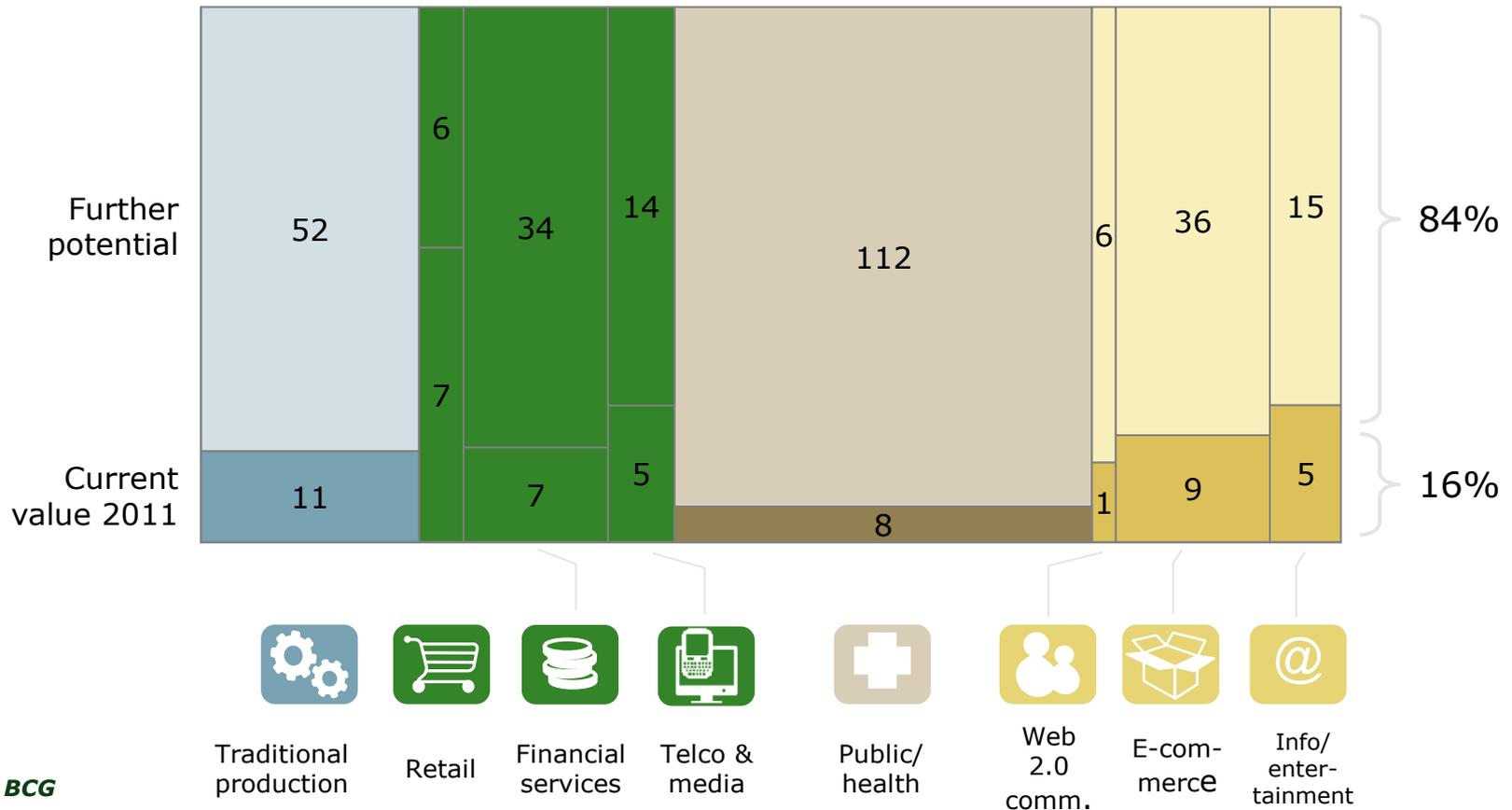
Source: OECD, BCG

SDW2013, 23rd May



# Public sector and healthcare stand to profit the most from personal data applications

## ➤ PRIVATE- AND PUBLIC-SECTOR VALUE OF DIGITAL ECONOMY 2020, BILLION €



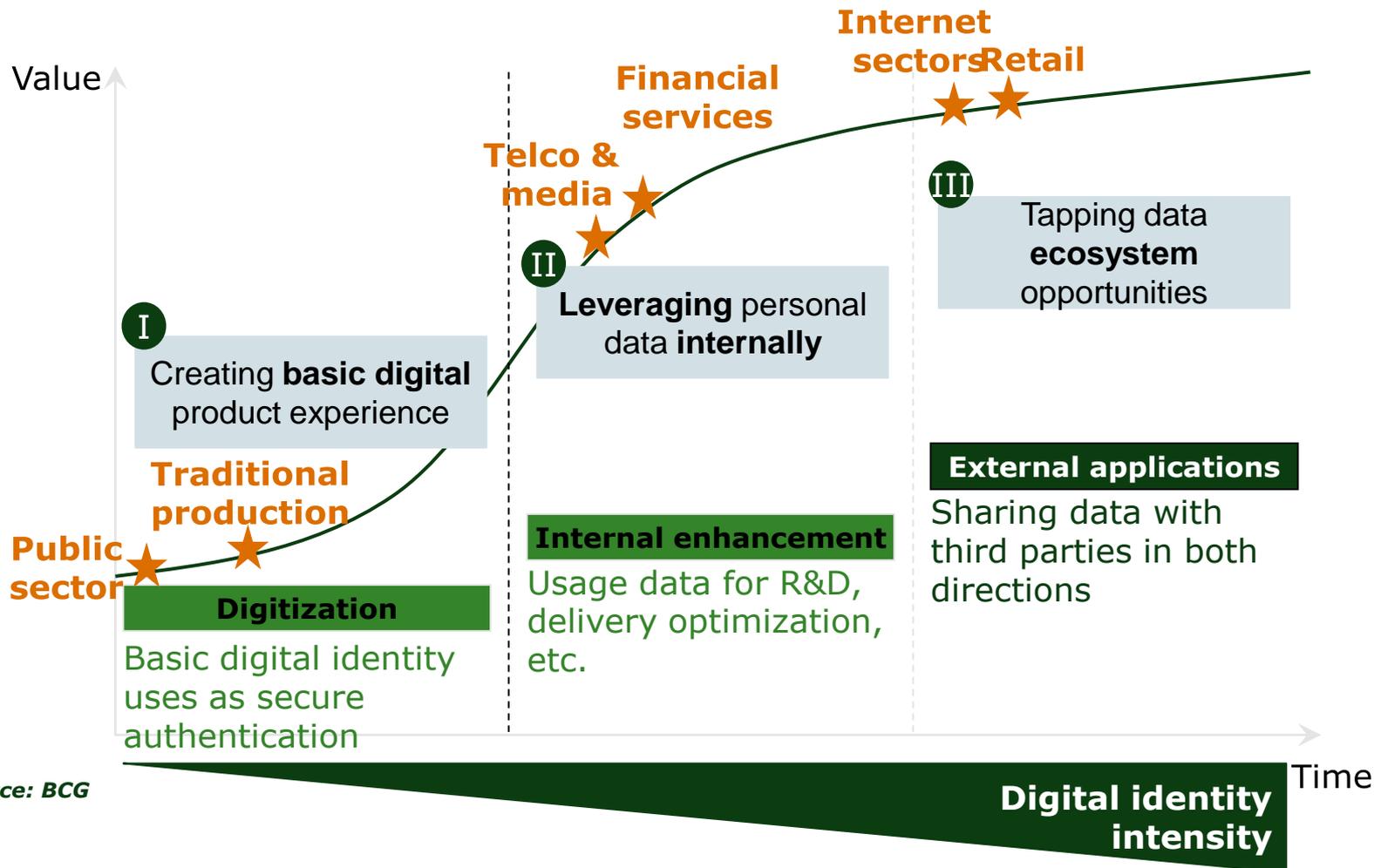
Source: BCG

SDW 2013 – 23<sup>rd</sup> May



# However Public Sector and Healthcare are lagging behind

## Evolutionary path of digital economy value creation



Source: BCG



# Millions of bytes of data is being collected

Tax status  
Social security  
Birthday  
Birthplace  
Gender  
Nationality



Cell phone N°  
Address  
Interests  
Purchase history

Credit rating  
Income  
Address  
Travel habits  
Work details

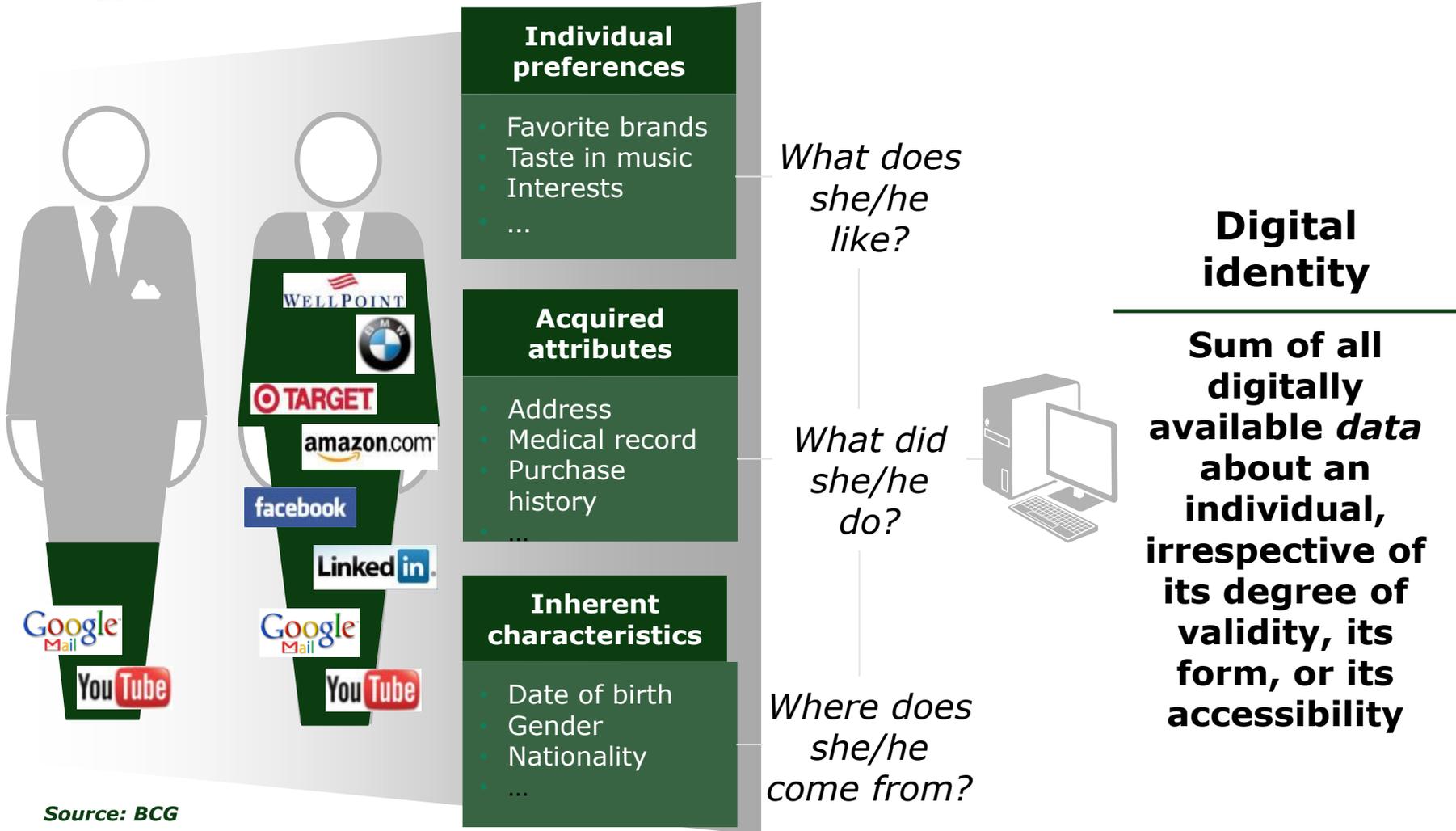


Health Status  
Blood group  
Insurance  
Address





# Digital identity is the sum of all digitally available data about an individual

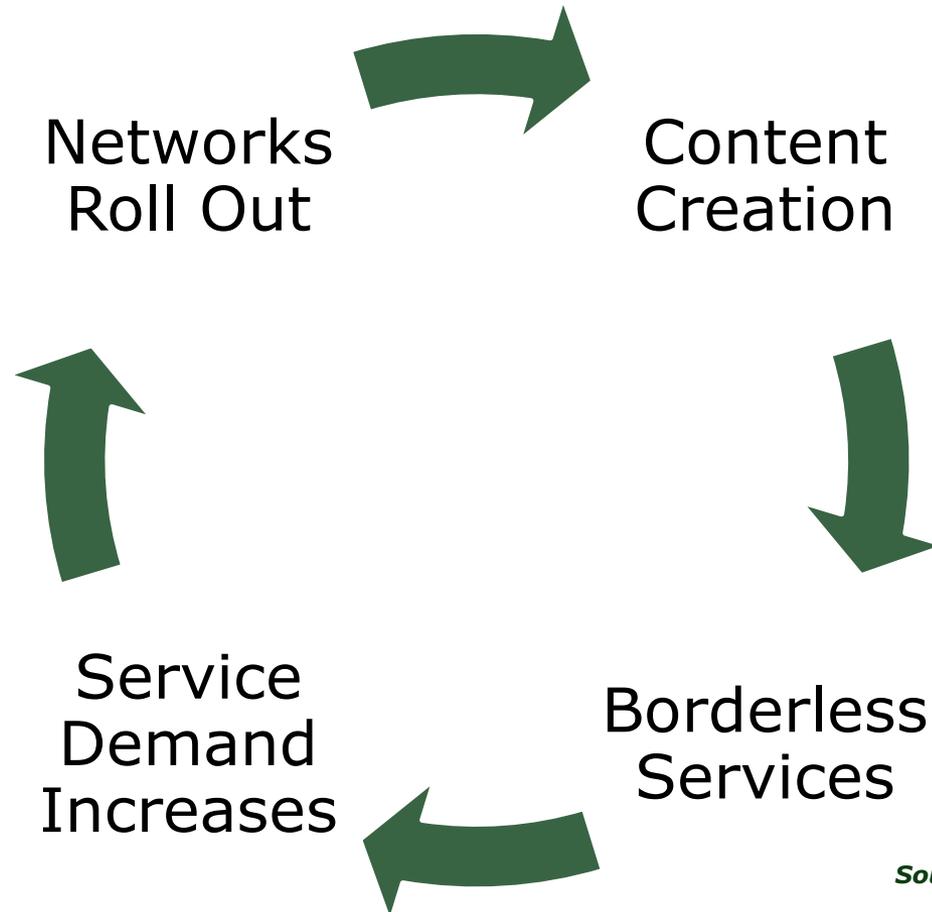


Source: BCG



# Digital identity creates wealth

➤ **DIGITAL IDENTITY VALUE: EUR 330 BILLION BY 2020 (SOURCE: BCG)**



*Source: EU COM (2010)245*



# 2

## The central principle of trust



# Massive hack attacks show major flaws in today's internet security

major 2011/12 data breaches



40 million employee records stolen



E-mail addresses and names of millions of third party customers exposed



77 million e-mail addresses and credit card data stolen



UK database hacked, clients' e-mail addresses and names exposed



Exposure of names, passwords and other personal information of 35 million Koreans



Medical and financial information of 5.1 million individuals stolen



Breach enabled monitoring of boardroom-level communications of more than 10,000 executives



Customers' phone numbers were logged and exposed to website publishers



Files containing 6.4 million LinkedIn members passwords were found on hacker websites



More than 200,000 e-mail addresses, along with other customer information exposed

Source: BCG

**For Sony's PlayStation Network incident alone total costs of up to \$4.6 billion estimated**





## Today's online issues

### ➤ **USERNAMES AND PASSWORDS ARE BROKEN**

- **Most people have >25 different passwords, or use the same one over and over**
- **Even strong passwords are vulnerable...criminals have many paths to easily capture "keys to the kingdom"**
- **Rising costs of identity theft**
  - 11.6M U.S. victims (+13% YoY) in 2011 at a cost of \$37 billion
  - 67% increase in # of Americans impacted by data breaches in 2011 (Source: Javelin Strategy & Research)



*Source: NSTIC*





## Today's online issues

### ➤ **PASSWORD CHANGE AND NEW ACCOUNT SETUP ALIENATE CUSTOMERS**

- **38% of adults sometimes think it would be easier to solve world peace than attempt to remember all their passwords**
- **38% would rather undertake household chores, like cleaning the toilet or doing the dishes, than have to create another username and password**
- **84% of people dislike being asked to register on a website**
- **Shopping cart abandonment: 38% online users do not buy online because they have to register before purchasing. (source: Forrester)**



*Source: NSTIC*



*"On the Internet, nobody knows you're a dog."*



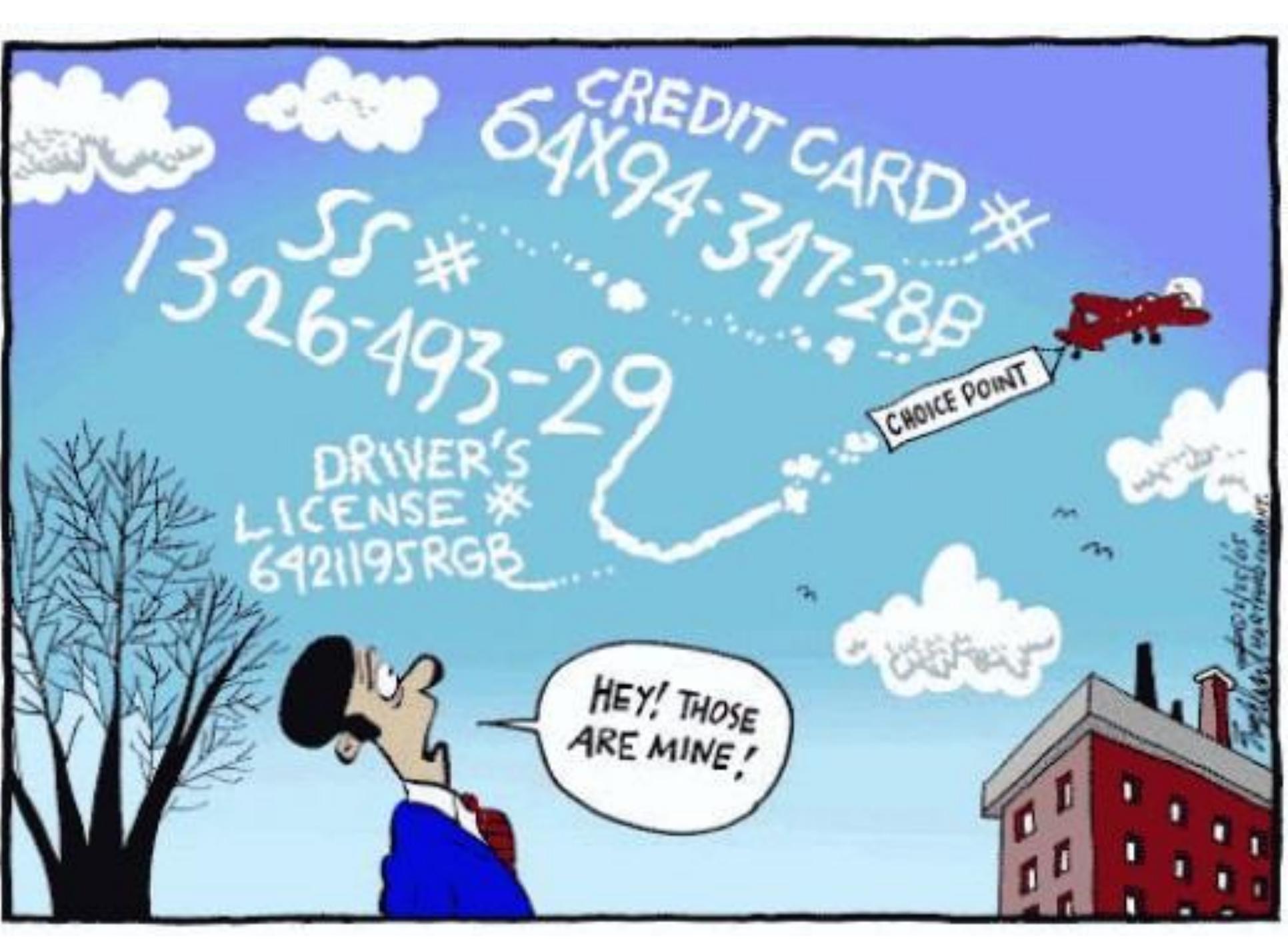
## Today's online issues

### › IDENTITIES ARE DIFFICULT TO VERIFY OVER THE INTERNET

- Numerous government services must still be conducted in person or by mail, leading to continual rising costs
- Electronic health records could save billions, but can't move forward without solving authentication challenge for providers and individuals
- Many transactions, such as signing an auto loan or a mortgage, are still considered too risky to be conducted online due to liability risks



Source: NSTIC



CREDIT CARD #  
64X94-347-28B

1326-493-29

DRIVER'S  
LICENSE \*  
6421195RGB

CHOICE POINT

HEY! THOSE  
ARE MINE!

© 1995 by Choice Point, Inc.



# Today's online issues

## ➤ PRIVACY REMAINS A CHALLENGE

- Individuals often must provide more Personally Identifiable Information (PII) than necessary for a particular transaction
- This data is often stored, creating "honey pots" of information for cybercriminals to pursue
- Individuals have few practical means to control use of their information
- Almost two-thirds of adults (62%) hesitant to enter personal information line without knowing how the site or brand was planning to use the info

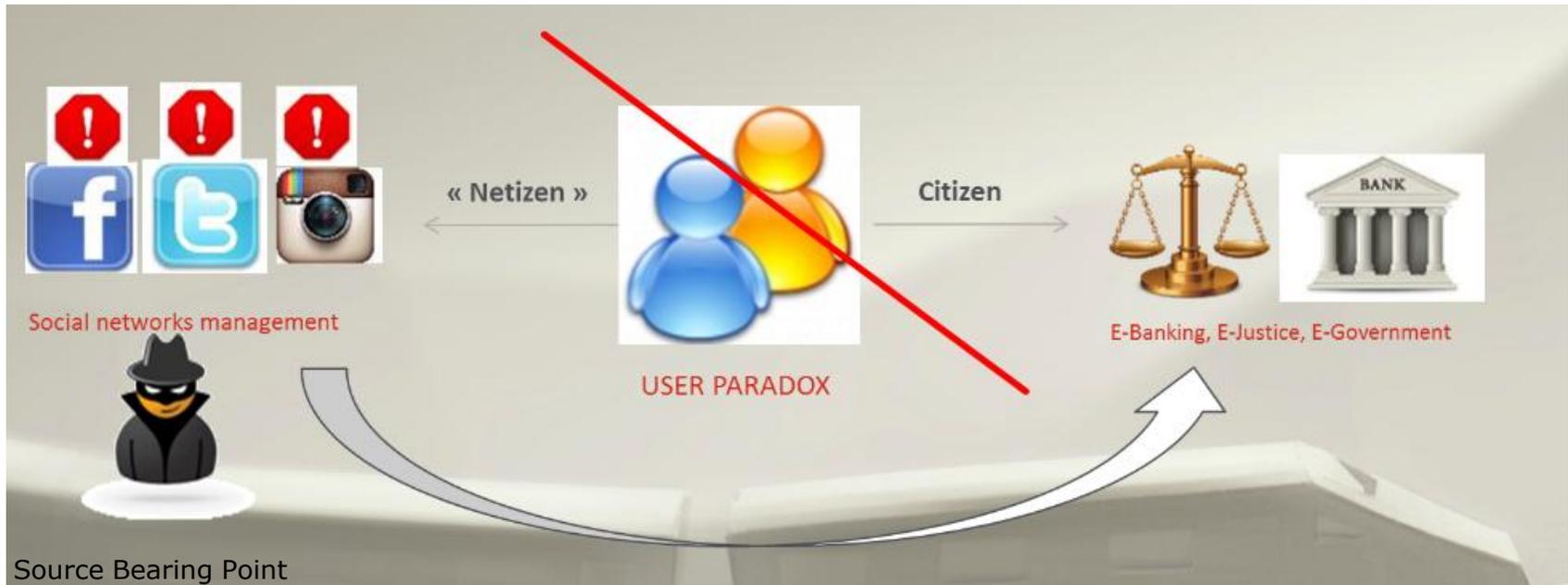


Source: NSTIC



# Today's online issues

## Users behavior can taint the whole trust chain

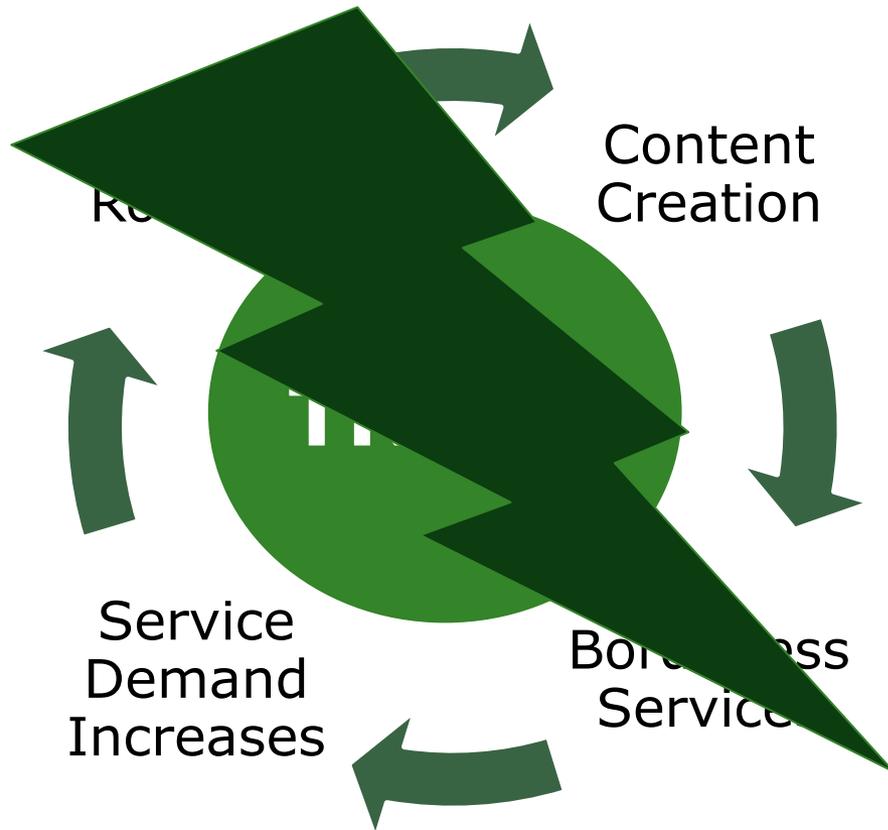


**Thanks to information available online, one can ask a birth certificate leading to a passport or an ID card**



# Today's online issues

**TRUST : IF TRUST IS BROKEN SO IS THE SYSTEM**



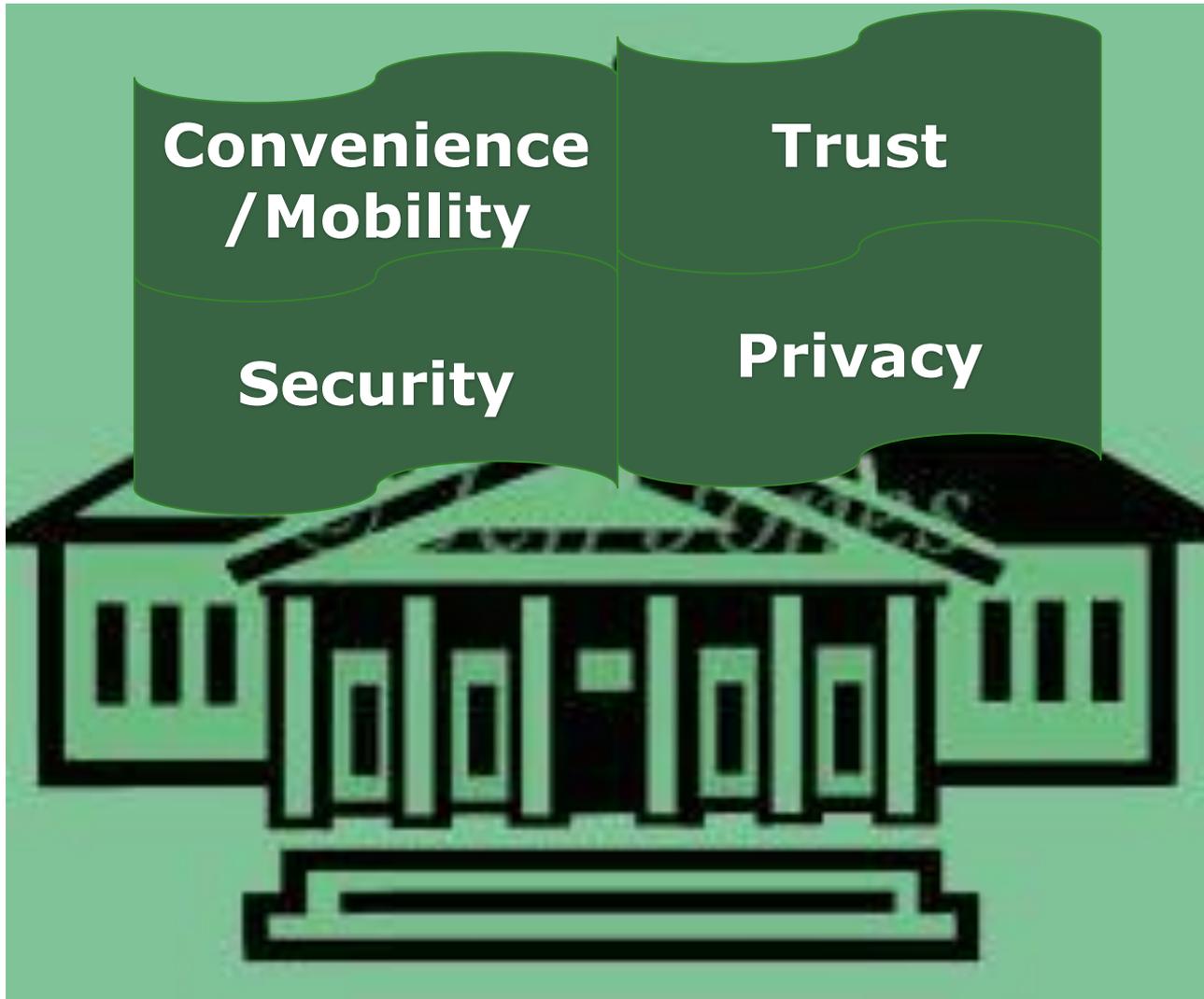


# 3

## The 'logical' role of government



In creating an environment where citizens are empowered via



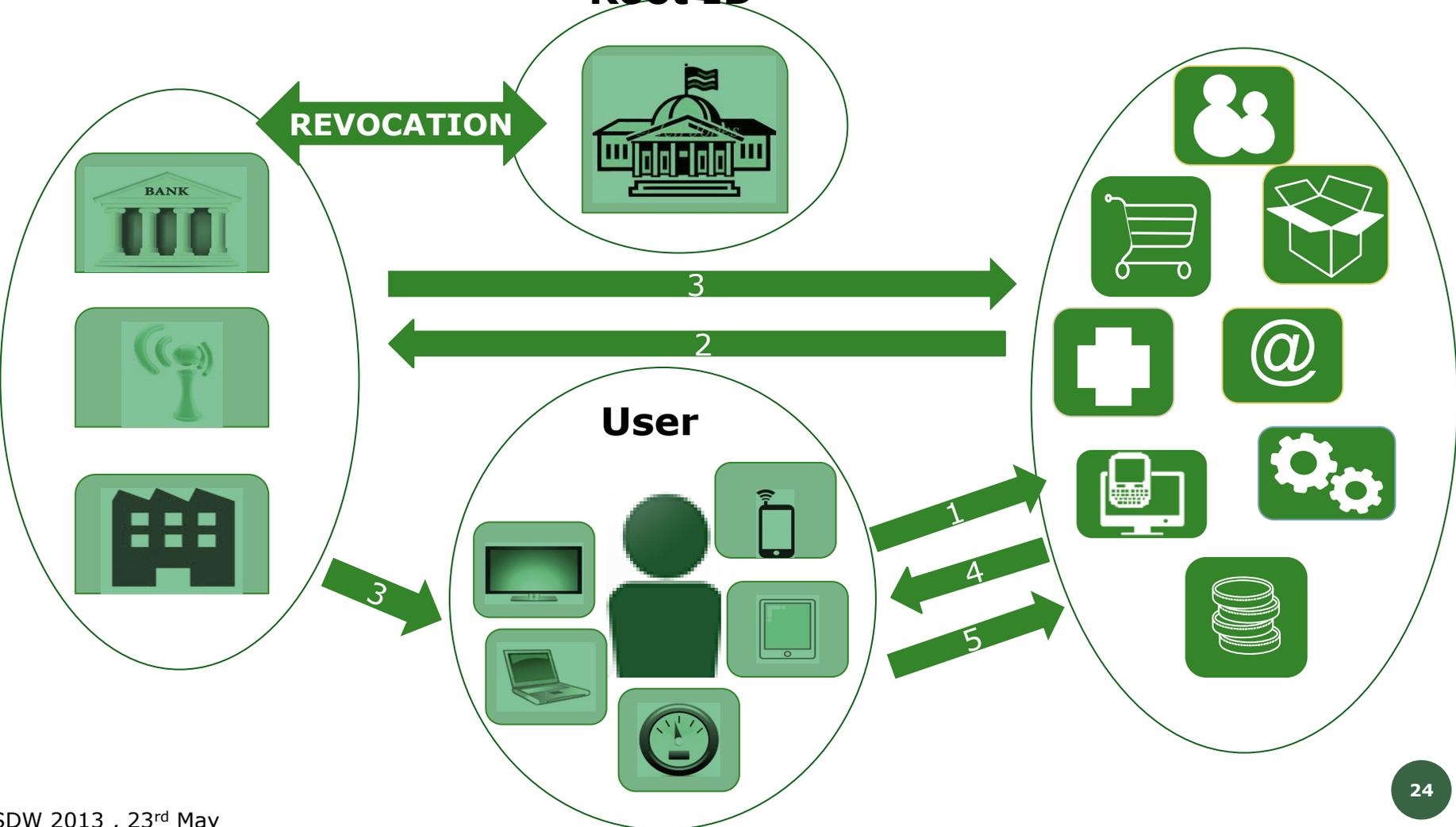


# Where governments play the root identity

**ID Service Provider**

**Government/  
Root ID**

**Service Providers**



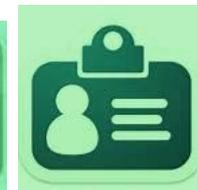


# And where Digital Identity is stored in a Secure Element

- **500 million ePassport in use (Source Icao 2012)**
- **1350 million national eID cards in use (Source ABI 2012)**
- **450 million eHealth cards in use (Source ABI 2012)**
- **250 million eDriving License cards (Source ABI 2012)**
- **25 billion SIM cards shipped since inception**
- **EMV Payment Cards have hit the 1 billion mark in 2011 (annual shipments)**

## › WHAT IS UNIQUE ABOUT THE SECURE ELEMENT?

- **Private: Personal data stored in Secure Element (health records, biometrics , others)**
- **Portability : different access devices can be used**
- **Citizen control: data transmission initiated by owner**
- **Highly customizable: Multi-services platform**
- **Highly Secured: Certified at every stage of lifecycle**
- **Connected: Remotely manageable**
- **Multi-party: Secured domains managed independently by each entity**
- **Standardized**
- **Interoperable: devices/ physical support & services**
- **Proven and mature technology – no relevant fraud since inception**





# A Logical role however complex

➤ **"AN ONLINE ENVIRONMENT WHERE INDIVIDUALS AND ORGANIZATIONS WILL BE ABLE TO TRUST EACH OTHER BECAUSE THEY FOLLOW AGREED UPON STANDARDS TO OBTAIN AND AUTHENTICATE THEIR DIGITAL IDENTITIES."** NSTIC

## ➤ REGULATIONS

- **NSTIC in the US (National Program Office of the National Strategy for Trusted Identities in Cyberspace)**
- **e-IDAS in Europe (regulation on eIdentification, eAuthentication and eSignatures and Trusted Services)**
- **National specific initiatives: Sweden, Estonia, etc.**

## ➤ STANDARDS: CEN, ETSI, ICAO, ISO AND OTHERS

## ➤ INITIATIVES : GSMA MOBILE ID





# To ensure the success of eGovernment Services

**Only 15 % of eGovernment Services are considered as success**

- Citizens benefited, no adverse results



**Belgium**



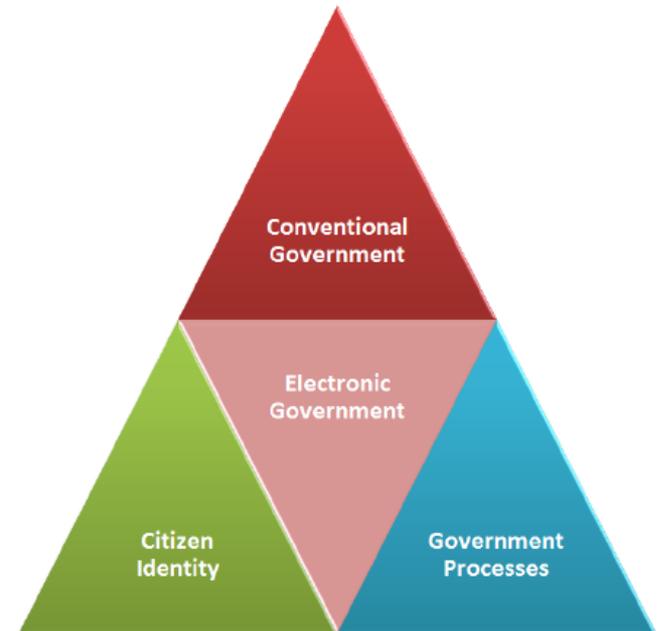
**Estonia**

DIGITAL  AUSTRIA

**50 % of Partial success**

- Main goals not achieved
- Initial success but problems after one year
- success for one group but failure for others

**35 % are not implemented or abandoned**





# 4

## Establishing secure partnership



## A Short Introduction

- **The Secure Identity Alliance is committed to helping public bodies across the world deliver e-government services to citizens through the widespread adoption of secure e-document technologies.**
- **Founded in March 2013 by leading eDocument and eService Companies**
  - **Board Members:**





## Objective

- **Accelerate the transition to smart eDocuments to support an open, interoperable and efficient roll-out of eGovernment online services by:**
  - **Describe and promote use cases of convenient value-added eGovernment services**
  - **Share experiences and best practices between industry and governments modernizing their services, in particular towards ensuring the privacy of end-users' personal information**
  - **Promote standardization of relevant and appropriate industry specifications**
  - **Make recommendations on the most up-to-date means to properly address the governments identity and privacy challenges**
    - eDocument hardware, software and secure printing technologies, materials and physical security expertise
    - Deliver the level of confidence and assurance needed for the rapid adoption of eServices that can be trusted by citizens
  - **Provide consistent reference information on security, identity and privacy challenges in a transparent manner**

**In short, the Secure Identity Alliance offers a trusted partner for governments when defining their eDocument strategies and implementing associated eGovernment services.**



Invitation

First Secure Identity Alliance Members  
Information (Recruitment) Meeting

**TODAY**

at 12:40

**In this Conference Room.**

[www.secureidentityalliance.org](http://www.secureidentityalliance.org)