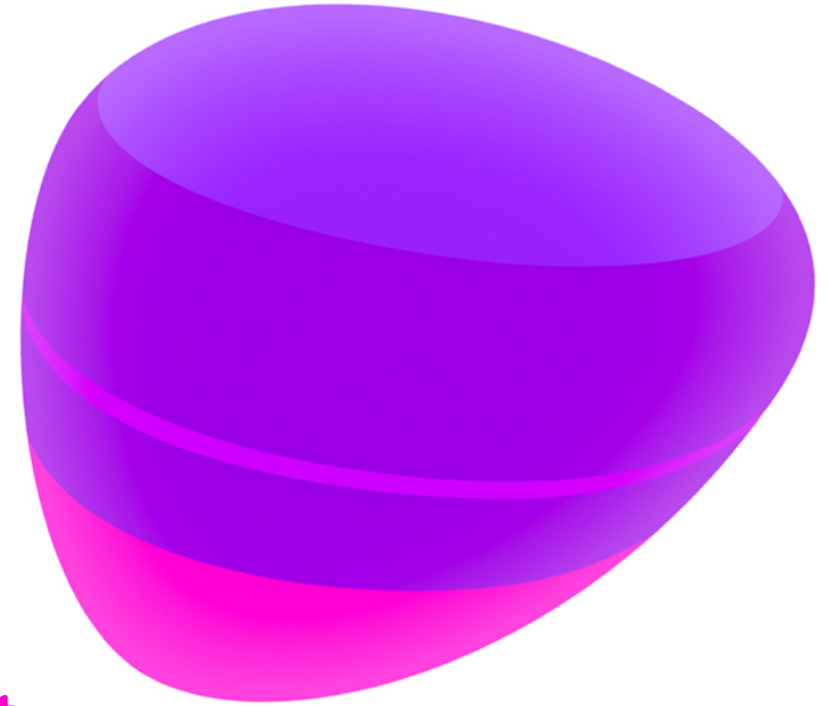


Overview of e-Identity in the Baltic and Nordic Markets

Lauri Immonen

Head of Security & Identity

Global Services & Operations Product Management



WHAT is e-Identity?

Noun [\[edit \]](#)

identity (plural **identities**)

1. **Sameness**, identicalness; the quality or fact of (several specified things) being the same. [\[quotations ▼\]](#)
2. The **difference** or **character** that marks off an **individual** from the **rest** of the same kind, **selfhood**. [\[quotations ▼\]](#)
3. A **name** or **persona**—the mask or appearance one presents to the world—by which one is known.

*This criminal has taken on several **identities**.*

4. Sense of who one is.

*I've been through so many changes, I have no sense of **identity**.*

*This nation has a strong **identity**.*

5. (*algebra*, *computing*) Any **function** which **maps** all elements of its **domain** to themselves.
6. (*algebra*) An element of an algebraic structure which, when applied to another element under an operation in that structure, yields this second element.
7. (*Australia*, *NZ*) A **well-known** or **famous** person. [\[quotations ▼\]](#)



DIGITAL IDENTITY

A digital/electronic identity is information on an entity used by computer systems to represent an external agent. That agent may be a person, organisation, application, or device.

Technical Aspects

- Trust, authentication and authorization
- Digital Identifiers
- Digital Object Architecture
- Handle System
- Extensible Resource Identifiers
- Policy aspects of digital identity
- Taxonomies of identity
- Networked Identity



DIGITAL TRANSFORMATION

Digital transformation is finding out what data can do for you business

“Digital transformation is not just about technology and its implementation, it’s about looking at the business strategy through the lens of technical capabilities and how that changes how you are operating and generating revenues.”

<http://www.forbes.com/sites/gilpress/2015/03/09/5-things-to-do-when-you-lead-a-digital-transformation/#7ba40f21624d>



Global addressable market for authentication,
authorisation and attribute services will be **\$27.3 bn**
in 2020

An indirect value of **\$58.7 bn** will be harnessed in
increased VAS usage, mobile data and customer service
efficiency and reduced churn



Levels of identity

Description

1

Anonymous identity

- Alias to log in into websites
- Not verifiable, self asserted information

2

Soft identity

- Declared user ID to log in into websites
- Not verifiable, self asserted information

3

Strong identity

- Declared user ID to log in into websites
- Not verifiable, self asserted information

4

Hard identity



- Certified digital user ID
- Verifiable, self asserted information

5

Legal identity



- Certified digital user ID
- Verifiable and legal bonding

WHY IS e-IDENTITY important?

FROM A USER PERSPECTIVE

EXAMPLE



SIMPLICITY

Use one account to securely access thousands of sites and apps with one-click and with a personalized experience.



PRIVACY

We actively protect your data by letting you control who can see what. Your data is never sent to third-party without your given consent.

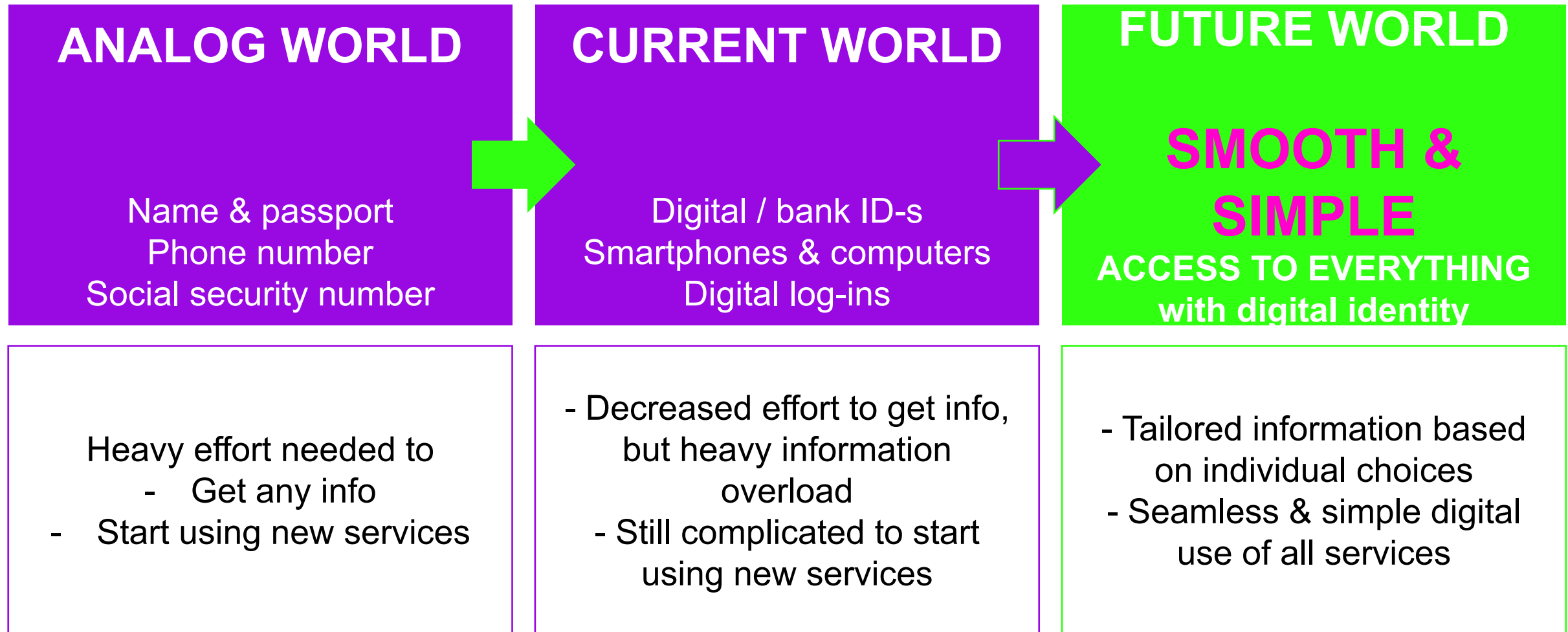


CONTROL

One place to access and control everything that is connected and related to you, be it sites, devices or data.



PERSONAL IDENTITY IS THE CORE OF HUMANS INTERACTING WITH WORLD





User identity is the red thread enabling to achieve max simplicity and seamlessness on user's terms





eIDAS: HOW IT WILL BENEFIT YOUR BUSINESS ?



PAYING TAX



SIGNING CONTRACTS



TENDERS



INVOICING



A SWEDISH COMPANY WANTS TO PARTICIPATE IN
A PUBLIC CALL FOR TENDER IN CROATIA

BEFORE

Danger of **UNCERTIFIED WEBSITE**



WEBSITE
AUTHENTICATION

The Swedish SME **IS NOT
AUTHENTICATED** might be fake



E-ID
AUTHENTICATION

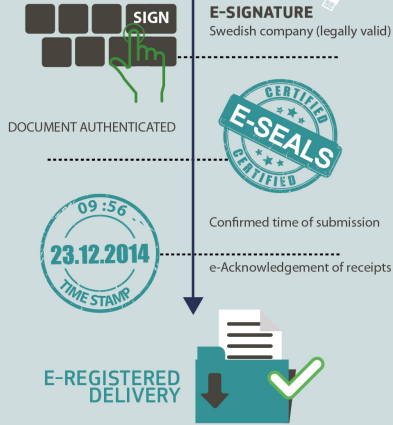
EXCHANGE OF PHYSICAL DOCUMENTS...



NOW



CREATION OF THE E-DOCUMENT



LESS DOCUMENT STORAGE



LESS TIME

1 - 2 WEEKS



HOURS - FEW DAYS

LOWER COST

€ 50 - 100



€ 10 - 20

Source: European Commission



ec.europa.eu/digital-agenda/en/trust-services-and-eid



The First eIDAS Qualified Electronic Signature Ever



1 july 2016



Digitally signed by Michał Tabor
Date: 2016.07.01 00:00:01 CEST
Reason: I signed this document



Existing International models to digital identity



Model 1: Self asserted open digital identity frameworks

Model 2: Hybrid models based on multi-identity federated frameworks across identity providers

Model 3: Multi channel/infrastructure digital identity based on national eID schemes

Model 4: Other Hybrid models / e.g. based on verified attribute exchange

Mobile Connect is capable of fulfilling every existing model, but mainly focuses on models 2, 3 and 4



HOW does the Nordic + Baltic market look like?



Swedish E-ID history and status



- The Swedish EID market is unregulated with three major actors:
 - Telia E-legitimation by Telia
 - BankID by Finansiell ID-teknik, owned by a consortium of major Swedish banks
 - Nordea, have since a couple of years discontinued their service
-
- Two major events have affected the Swedish market the past years:
 - Introduction of Mobile BankID
 - The introduction of a regulated Swedish Digital identity – Svensk E-legitimation



Swedish E-ID history and status



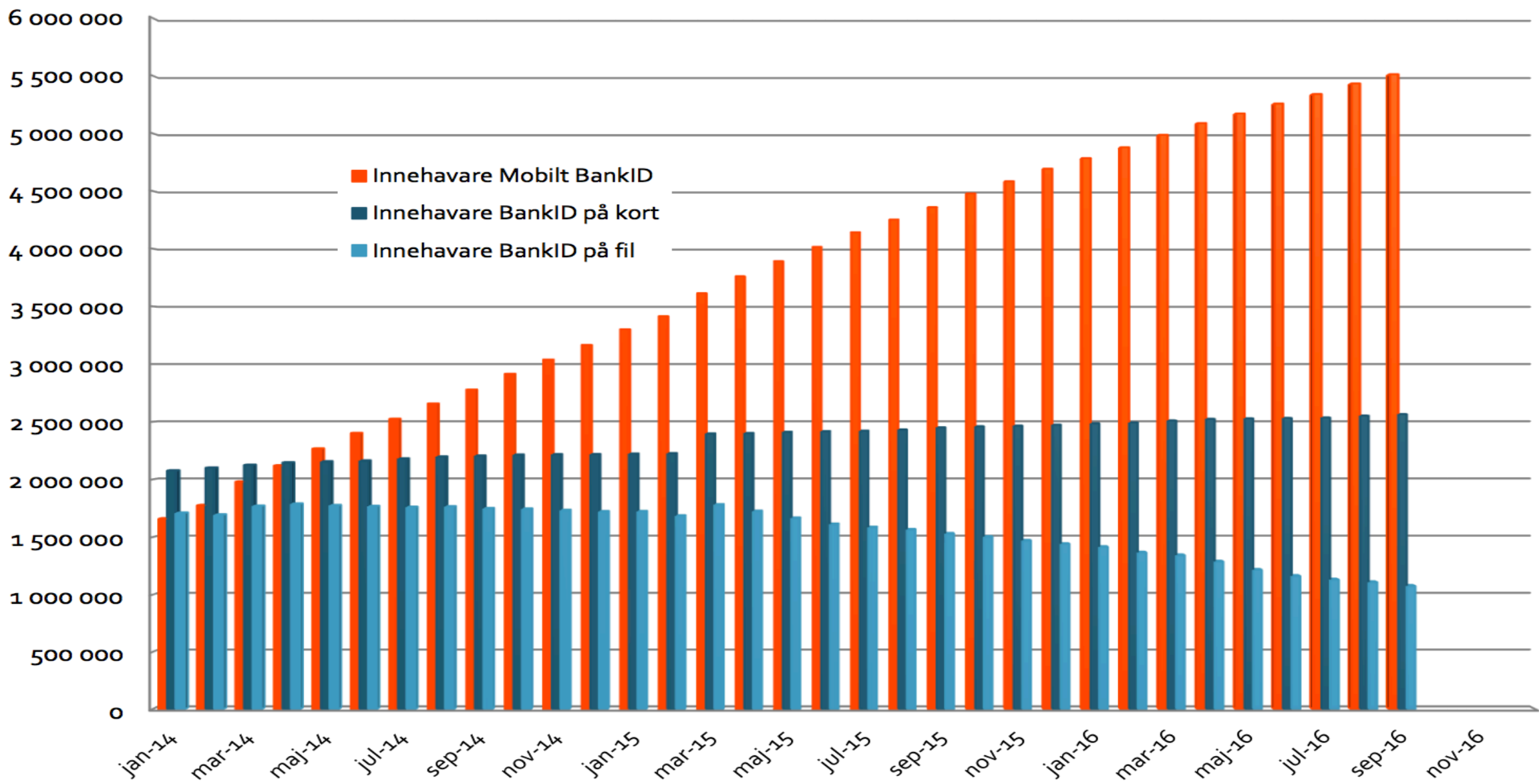
Swedish E-ID has been used primarily for authentication and digital signatures towards authorities and financial service providers.

- E-legitimation in Sweden is offered on file, on smart card and in mobile device apps. But not on SIM-cards.
- Telia EID supports E-ID on file, smart card and mobile device, but only smart card is available to the market currently.

With the introduction of Mobile BankID the usage and use cases have boomed. Swish, a consumer peer to peer payment solution has been a huge success.



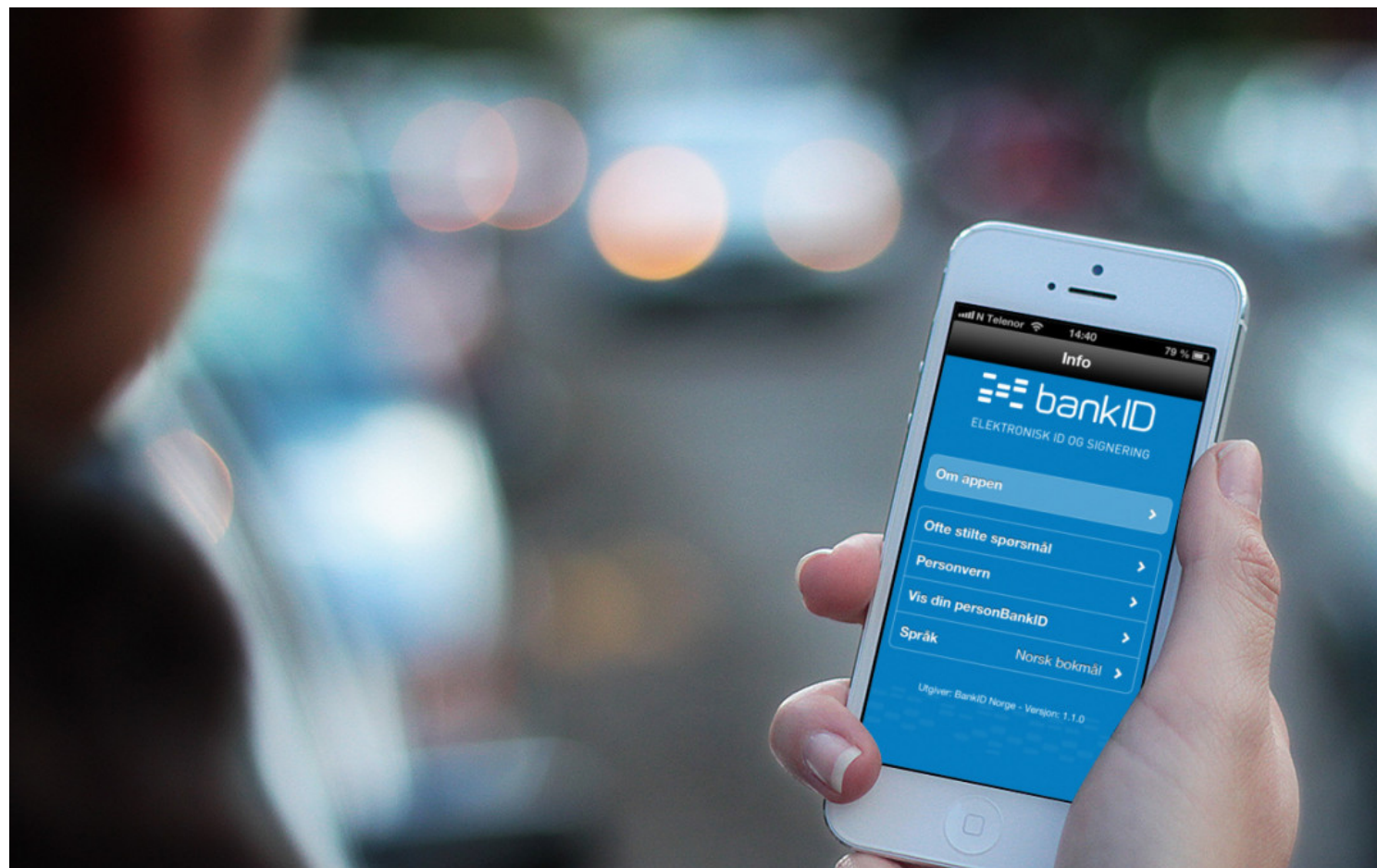
EID History and Status





bankID

PÅ MOBIL



Major players and market shares – Part 1

There are 4 major ID players available today and one national ID solution for all Norwegian citizens planned for release in mid-2018 offered by the government.

- BankID(with BankID on mobile), Buypass, Commfides and MinID. Only the first 3 are LOA 4.
- **BankID** has broad adoption in Norway and is considered the standard for assured authentication. It also supports document signing. Mobile BankID has also gained broad adoption and usage because of its ease of use
 - BankID is now used by 80 percent of all adults in Norway (3.5M) to prove their identity to various organisations across Norway, including all government departments, and all of the country's banks and mobile operators. For example, 100 percent of Norwegian banks accept BankID, more than 50 percent of people now use BankID to access and file their taxes, and 85 percent of students in Trondheim sign their tenancy agreement not with a pen but with BankID.
 - The average customer uses Mobile BankID 3.5 times per week (12 times a month), compared to the use of BankID at 2 times per week. Mobile BankID has 970K users.
 - 337 service providers use BankID
- **Buypass**
 - <https://www.buypass.no/>
- **Comfides**
 - <https://www.commfides.com/>
- **MinID** is used by over 2.6 million Norwegians. MinID makes use of the ID-Gateway, the common platform for eID in the Norwegian public sector.



Major players and market shares – part 2

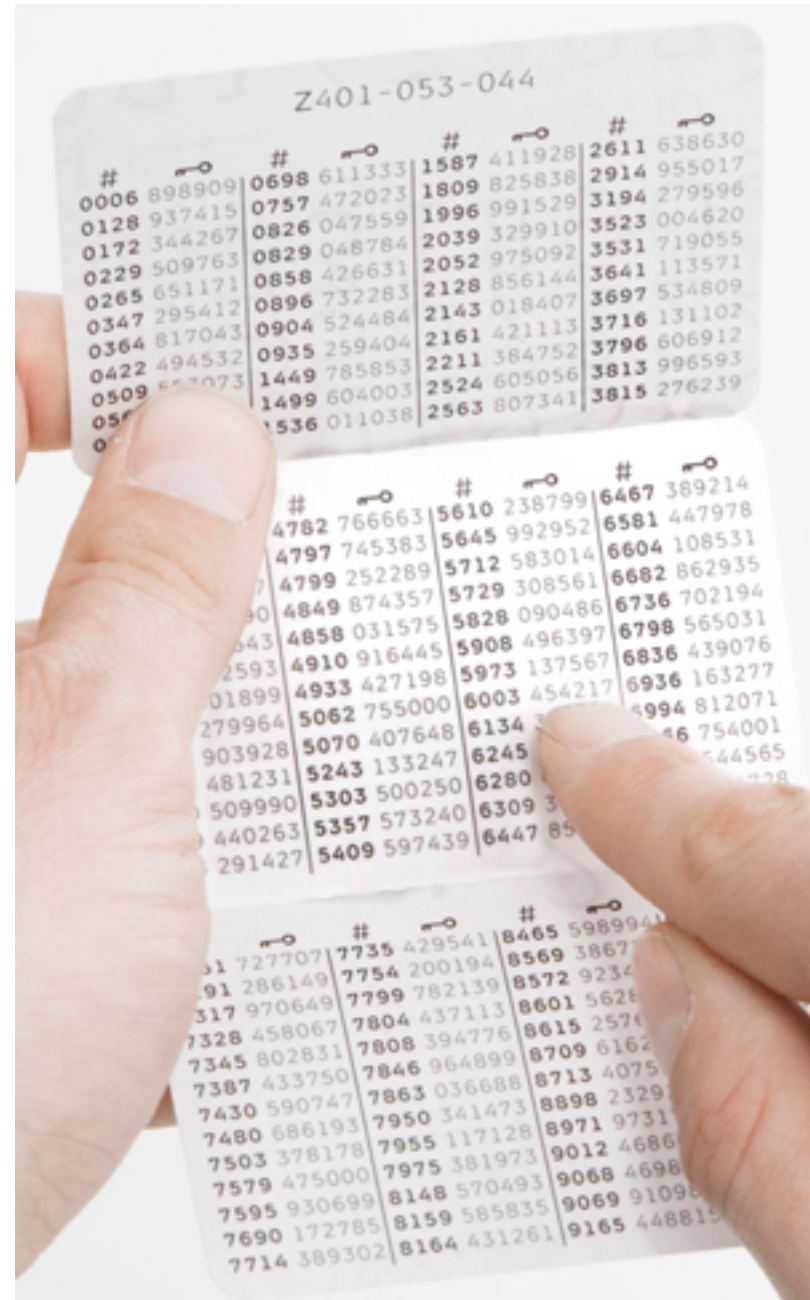
- In addition there are other ID players, Schibsted (SPiD), A-media (aID) alongside with other major media companies are joining forces to compete against international ID players such as Facebook & Google on the most visited sites and services in Norway
- Schibsted ID (SPiD)
 - Over 3M verified accounts (loa2)
 - Uses BankID for verification of user profiles (>600M verified accounts and growing through Schibsted's markedplaces)
- A-Media (AiD)
 - https://www.aid.no/aid/hva_er_aid
 - <https://www.aid.no/aid/nettsteder>





Danish E-ID history and status

- NETS is the only player on the market covering:
- All public services (tax, health, etc etc) login
- Digital signing
- Bank login
- Business login





Major players and market shares

- There is no bank based coalition in Finland as country wide Bank ID, but each bank have their own solution that are mostly compatible with each other
- Currently banks hold about 90% of the market (most of their own consumption). Operators 9% and Government ID card with chip about 1%
- Finnish MNO's have joined forced with Circle Of Trust model where any SP can make an interface service contract with any of the Finnish operators which reroutes these requests to right home mno, then MNO that made interface service contract pays termination fee to others for their transactions
- MNO's are currently gaining market share very rapidly





Major players and market shares

- There is no bank based coalition in Lithuania (yet) as country wide Bank ID, but each bank have their own solution that are mostly compatible with each other
- Currently banks hold the biggest part of identity provider market (not only of their own use).
- There is a Mobile signature service (MobileID / wPKI) provided by all MNOs, which are identical.
- National ID card also provides digital identity infrastructure, which is rapidly growing (according to trust service providers that are working as a integrators between service providers / CAs and MNOs)





Major players and market shares

- ID card and Mobile-ID are government endorsed electronic ID-s, that are accepted by all mayor e-service providers. Additionally every bank has also their own proprietary solutions
- Infrastructure for running the ID card and Mobile-ID is provided by SK and has 100% market share for ID card and Mobile-ID transactions.
- Mobile-ID is provided by all Mobile Operators and is identical in usage
- Biggest e-service providers are banks and e-health
- Signature and authentication transactions are split 40% / 60%



Closer to what matters...

- Bringing people **closer** to what is important in their world
- **Trusted** to deal with the things that matter the most



BRAND PROMISE

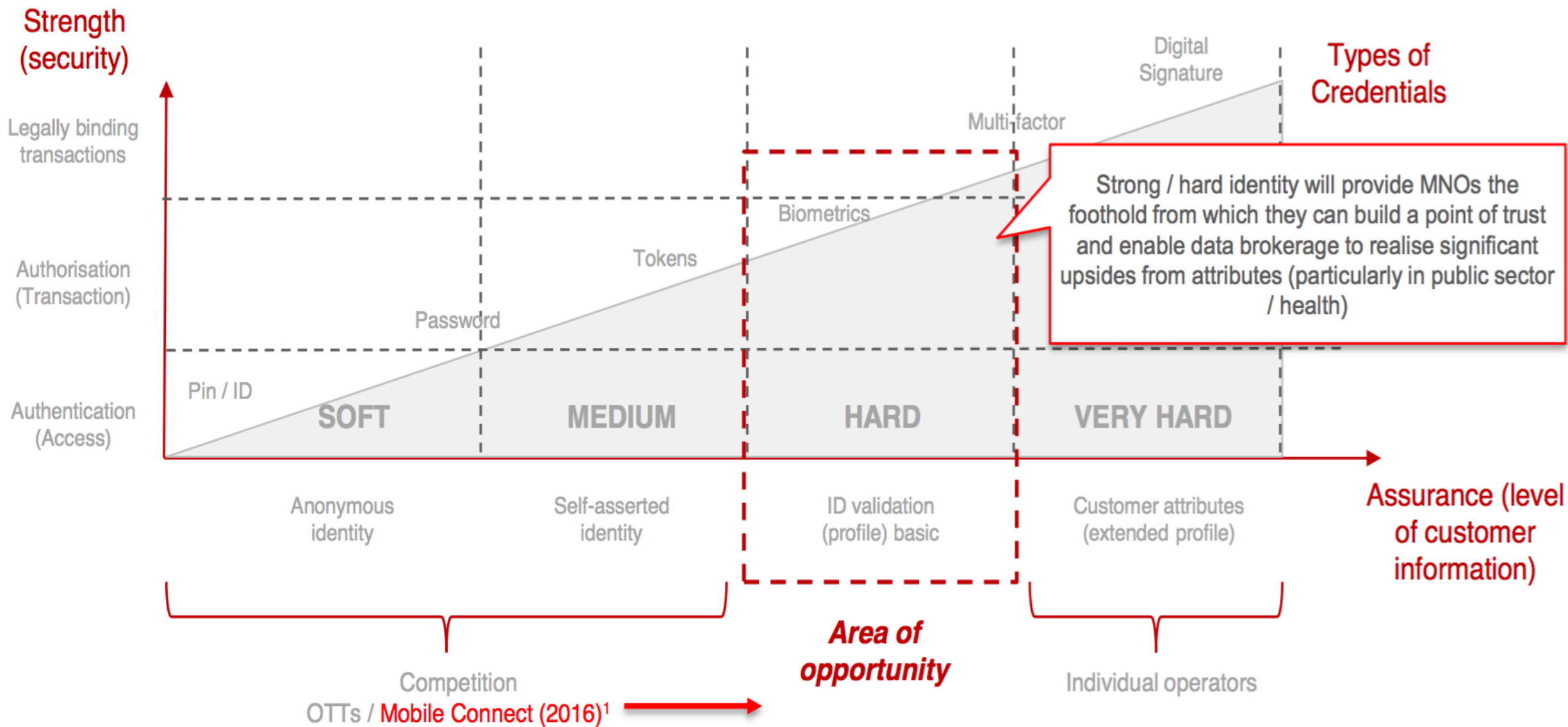
Closer to what matters,
unconditionally



...unconditionally

- **Pushing boundaries**, so customers feel **free** and unrestrained
- Devotion to make it **on the customer's terms**

Thanks!



GSMA: 'owning the customer relationship' is the key dimension in determining the future of mobile operators; whether they become 'the life platform' or 'fragmented commodities'



TECH

Microsoft to Acquire LinkedIn for \$26.2 Billion

Deal is for \$196 per LinkedIn share, a 50% premium to Friday's close





Facebook \$22 Billion WhatsApp Deal Buys \$10 Million in Sales

