

Austrian mobile ID

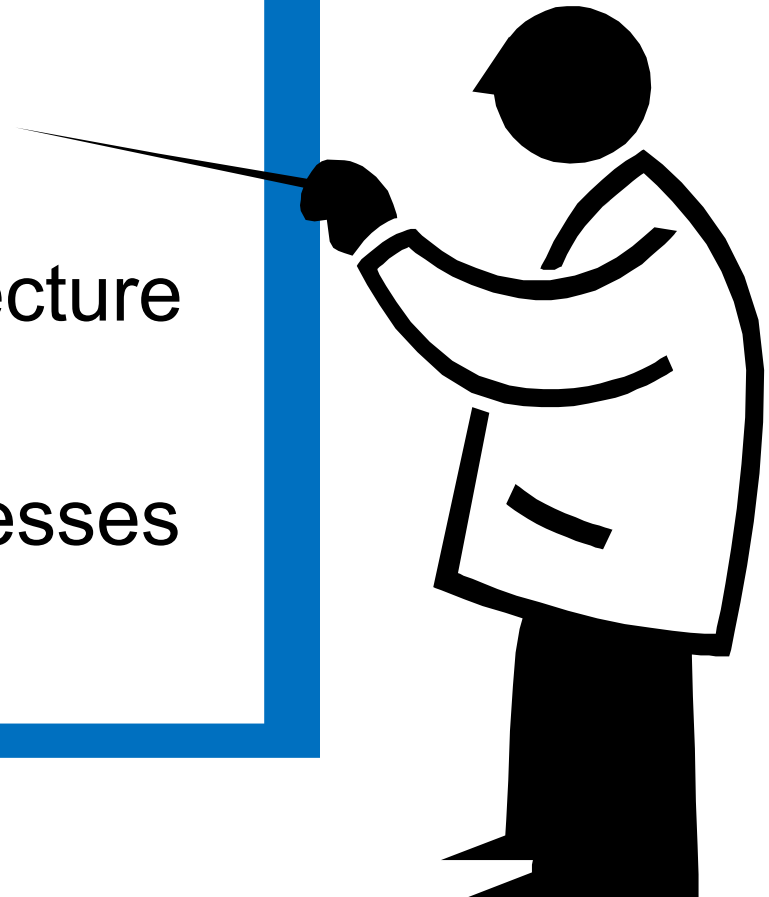
Herbert Leitold

ITU Expert Group Meeting on mID
18-19 October 2016, Warsaw



Contents

1. Introduction
2. Business Model
3. IT & Technical Architecture
4. Security an Privacy
5. Use Cases and Processes
6. Awareness Raising



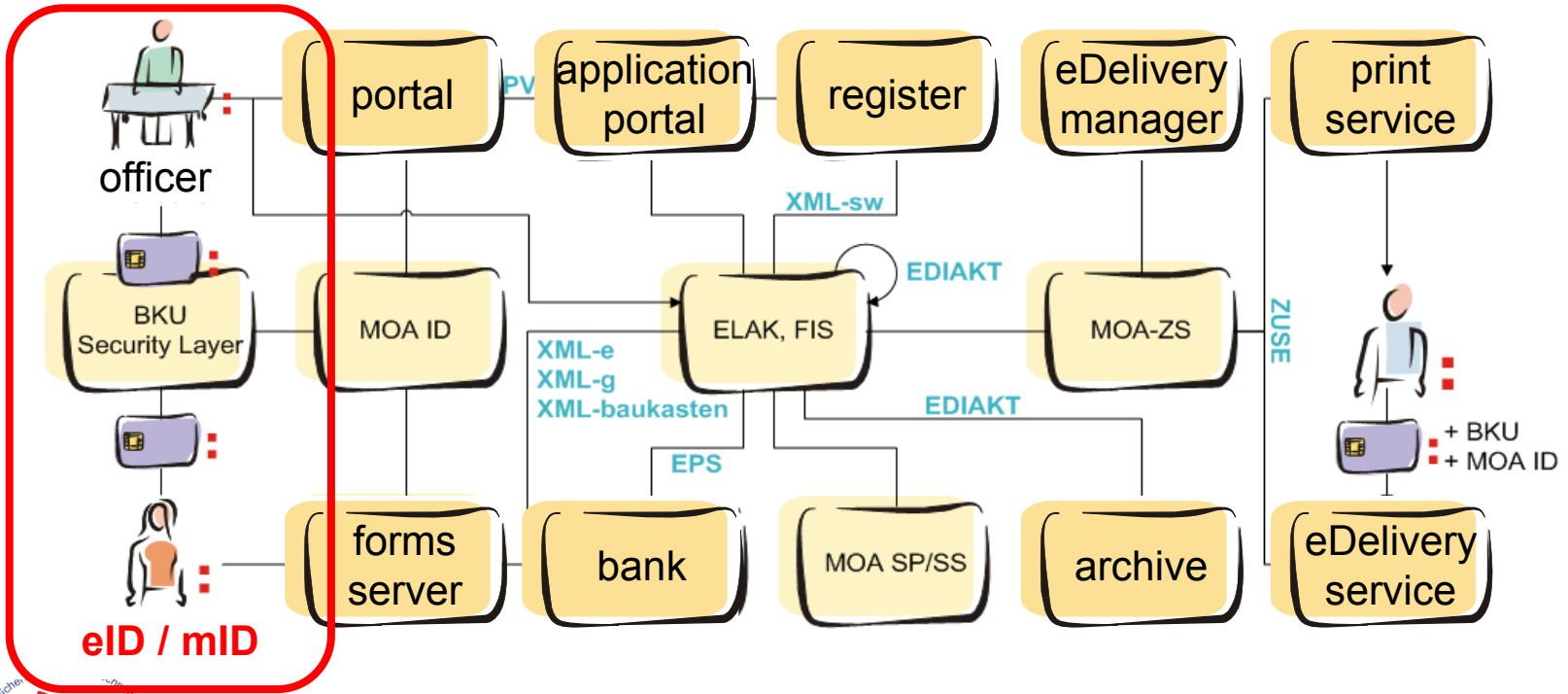
eGovernment Portals

- General federal portals
 - help.gv – citizen information
 - Business Service Portal
- Sectorial portals
 - FinanzOnline – tax portal
 - Social Security Portal
 - Health Portal
- Regional and local portals



Portal Big Picture – Building Blocks

- Common architecture supported through Open Source Building Blocks



eID Timeline

- November 2000: Austrian Cabinet Council decision
 - ... to employ chip-card technology to improve citizen's access to public services; to supplement the planned health insurance card with electronic signatures
- February 2003: 1st Citizen Card
 - Austrian Computer Society membership card
- March 2004: E-Government Act
 - Legal basis of the Identity Management System
- 2005 - now
 - Several private-sector and public-sector borne Citizen Card initiatives
 - **2005 both card ID and mobile ID started**

Legal Framework Overview

- E-Government Act and bylaws
(issued 2004, major amendments 2008, 2010, 2016)
 - Electronic Identity
 - Public Sector use and Private Sector Use
 - Base Registers
 - Official Signatures
 - All official notifications electronically signed (even if delivered on paper)
 - Electronic Delivery (*in Delivery Act*)

Austrian eID technologies & history

Smartcard



Bank cards
from 2005; ceased



1 signature
*service provided by a MNO
from 2005; ceased in 2008
limited success*



Health insurance card
since 2005



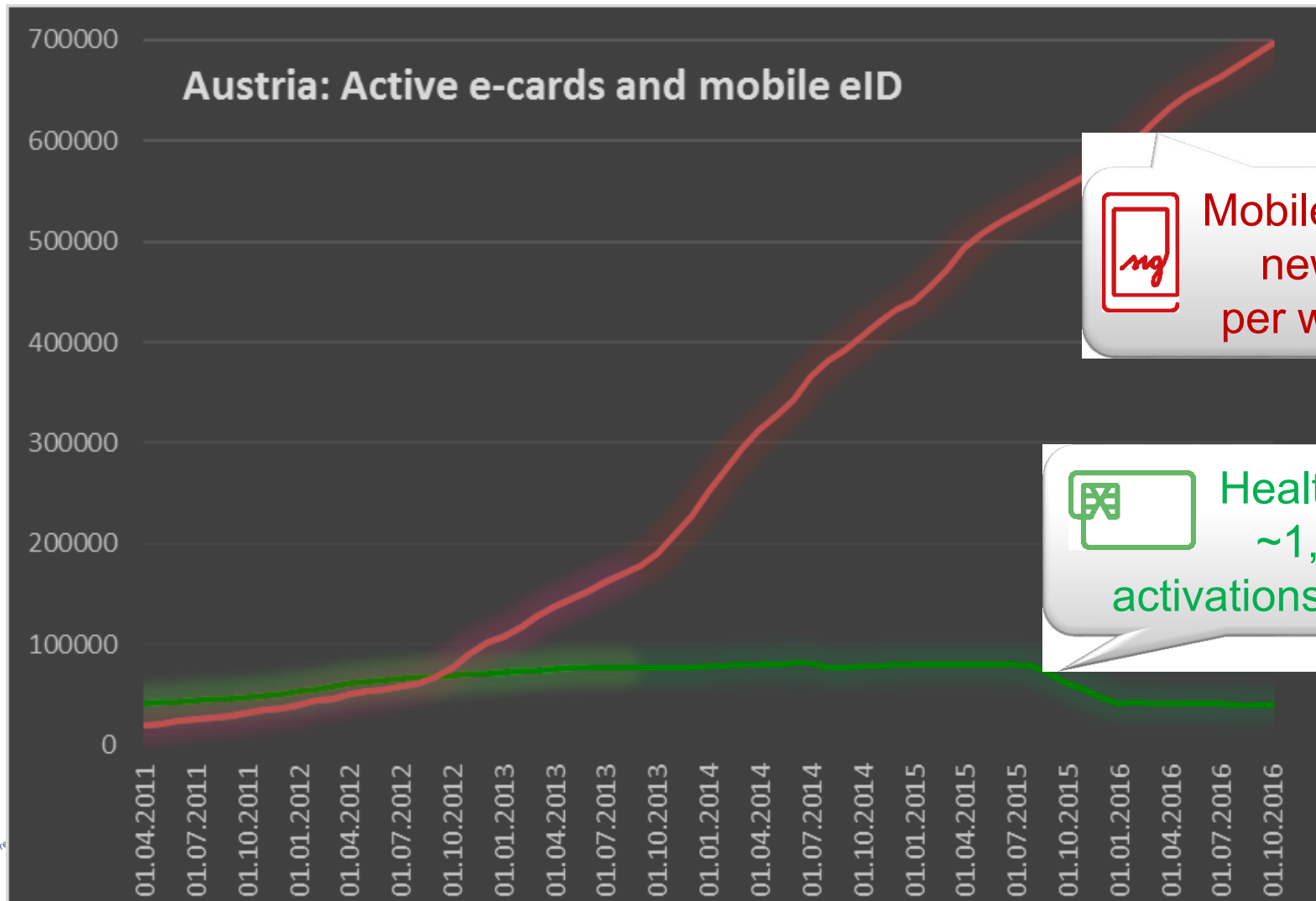
Profession cards,
service cards, ...
*e.g. notaries, lawyers,
ministries, ...*



Mobile phone signature
*launched end 2009 through
the LSP STORK
Contracted by gvmnt. to a
private sector CSP
Success? Well, let's see ...*



Austria: Card vs mobile ID active users

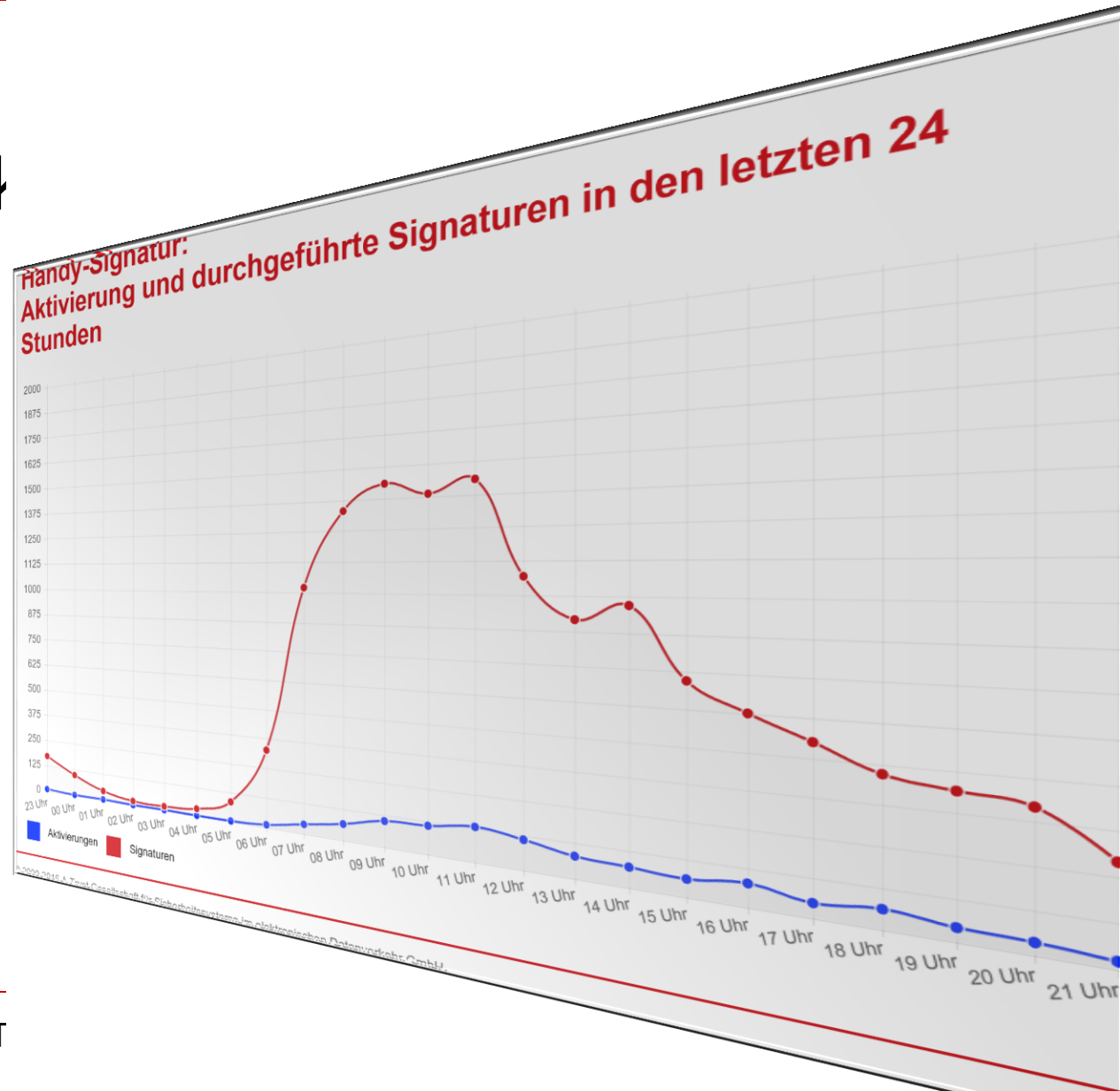


 MobileID ~1k new users per workday

 Health card, ~1,3 k eID activations/month

Austria: Actual usage ... (mobile only)

- About 15-20 k uses on a typical working day
- ~4-6 k/day uses on weekends



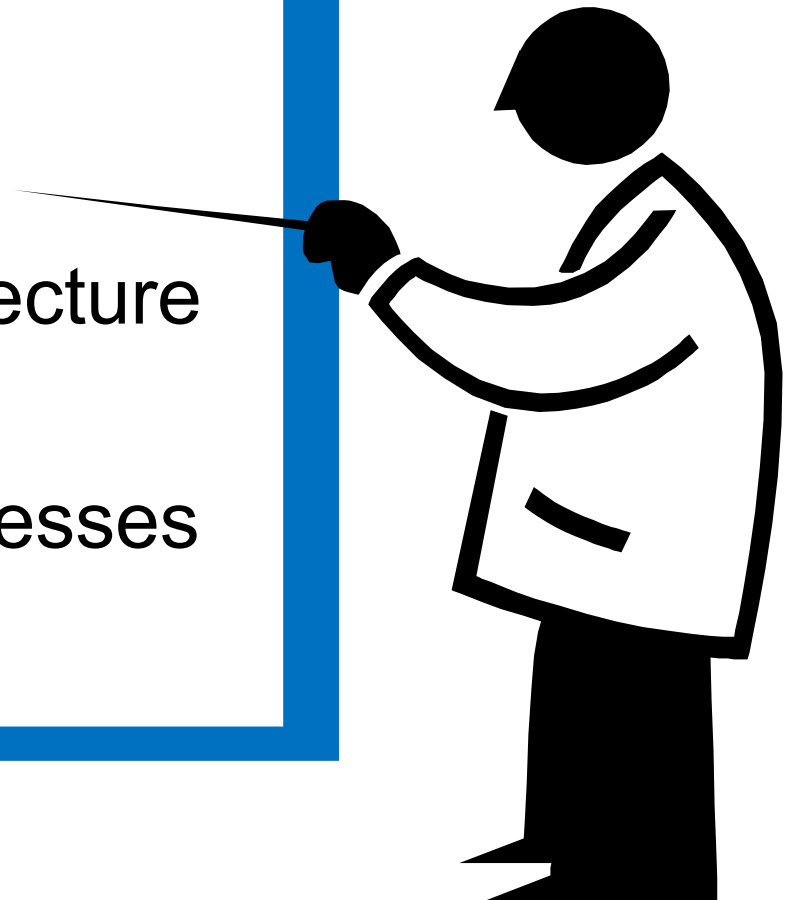
Austrian mobile ID Key Success Factors



- Zero footprint
 - No additional hardware
 - Just a browser needed, works with each OS
- Independent from mobile phone and MNO
 - No SIM change through server-based solution
- Ease of activation for citizen
- Low development costs, no cost for citizen

Contents

1. Introduction
- 2. Business Model**
3. IT & Technical Architecture
4. Security an Privacy
5. Use Cases and Processes
6. Awareness Raising



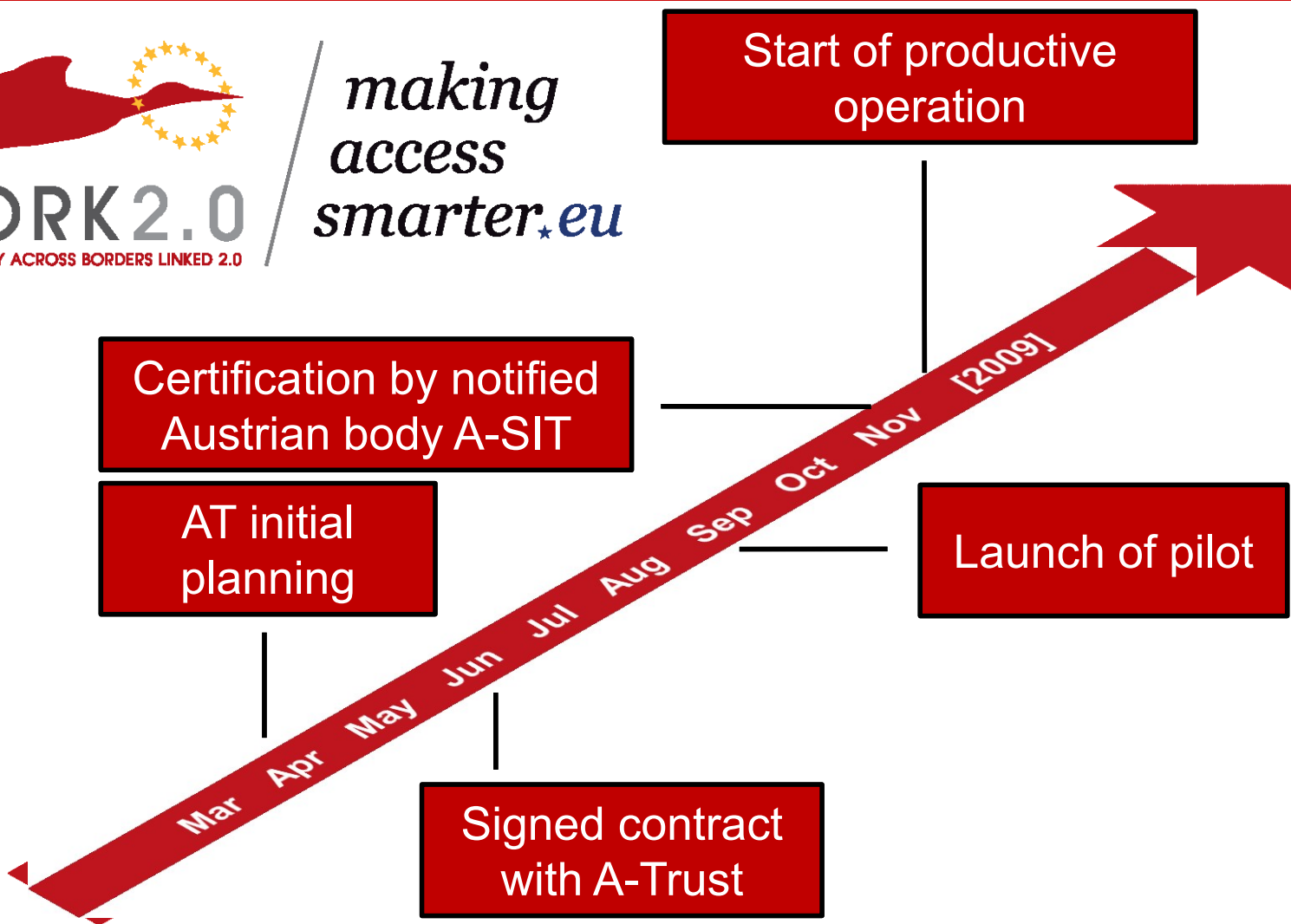
Cost Model

- Development costs funded through STORK
 - 50 % carried by Austrian government
 - 50% by European Commission (CIP ICT-PCP)
 - Operations costs by Austrian government
 - Operated by private sector provider “A-Trust”
 - Mobile ID free of charge for ...
 - Citizens (no costs for activation and use)
 - Service Providers (public and private sector)
- same for card eID (health insurance card)

AT mID Deyployment (through STORK)



*making
access
smarter.eu*



Contents

1. Introduction
2. Business Model
- 3. IT & Technical Architecture**
4. Security an Privacy
5. Use Cases and Processes
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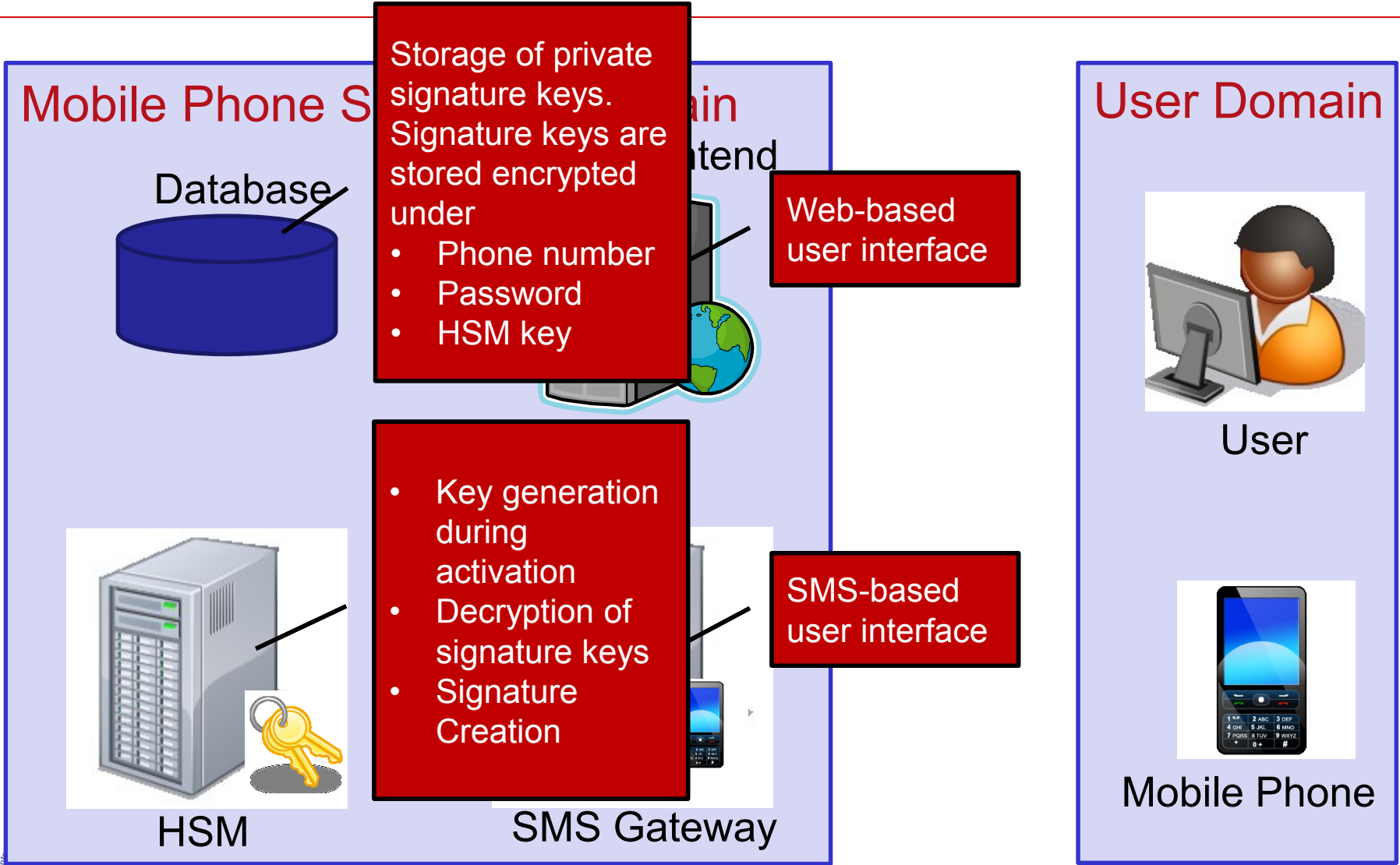
General planning considerations

- Various options considered
 - SIM as SSCD via crypto co-processor
 - Estonia, Norway, Turkey, ...
 - SIM to be replaced
 - Negotiate with (several) operators
 - Server-Signature as SSCD
 - **Finally chosen in Austria, as**
 - no change to mobile infrastructure
 - Citizen can keep SIM and mobile device
 - Open for foreign mobile operators

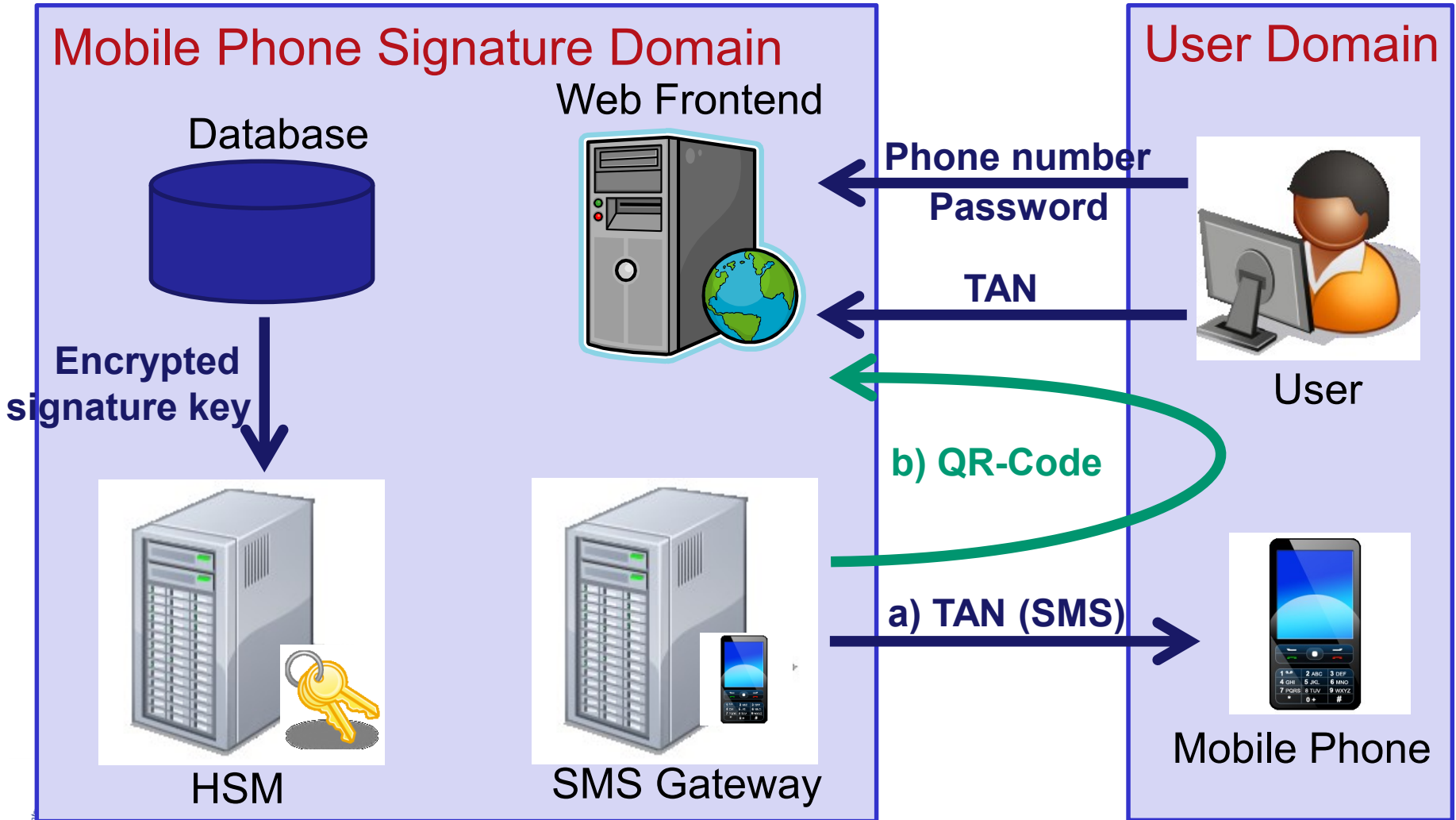
Austrian mobile eID: Core Aspects

- Operated by a Certification Service Provider (CSP) for qualified certificates
- Signature-creation data (cryptographic keys) kept at CSP but controlled by the signatory
- 2-factor authentication (knowledge & possession)
- Secure Signature-Creation Device
 - 1999/93/EC Ann. III, confirmed by notified body
 - now eIDAS qualified signature-creation device

The Architecture



The Operation: a) SMS b) QR code



Other guideline questions on section 3

- Does mID solution use biometrics?
=> **Answer Austria: No**
- Does mID allow to use it in physical work or only digital?
=> **AT: Electronic only**
- Is there any central system which logs every transactions?
=> **AT: Server-based system, limited logs (data protection)**
- Is every transaction handled by central system? This means that country / system knows about every transactions (citizen could have problem with privacy)
=> **AT: Server-based system, limited logs (data protection)**

Other guideline questions on section 3

- Does citizen has access to his transactions and logs (like where his mID was used?)
=> AT: No, data not available
- How is mID verified? Are there any physical chips or scanners which are used by eg. Policeman in order to verify mID ?
=> AT: In electronic online processes only (no verification in physical world like by police)

Contents

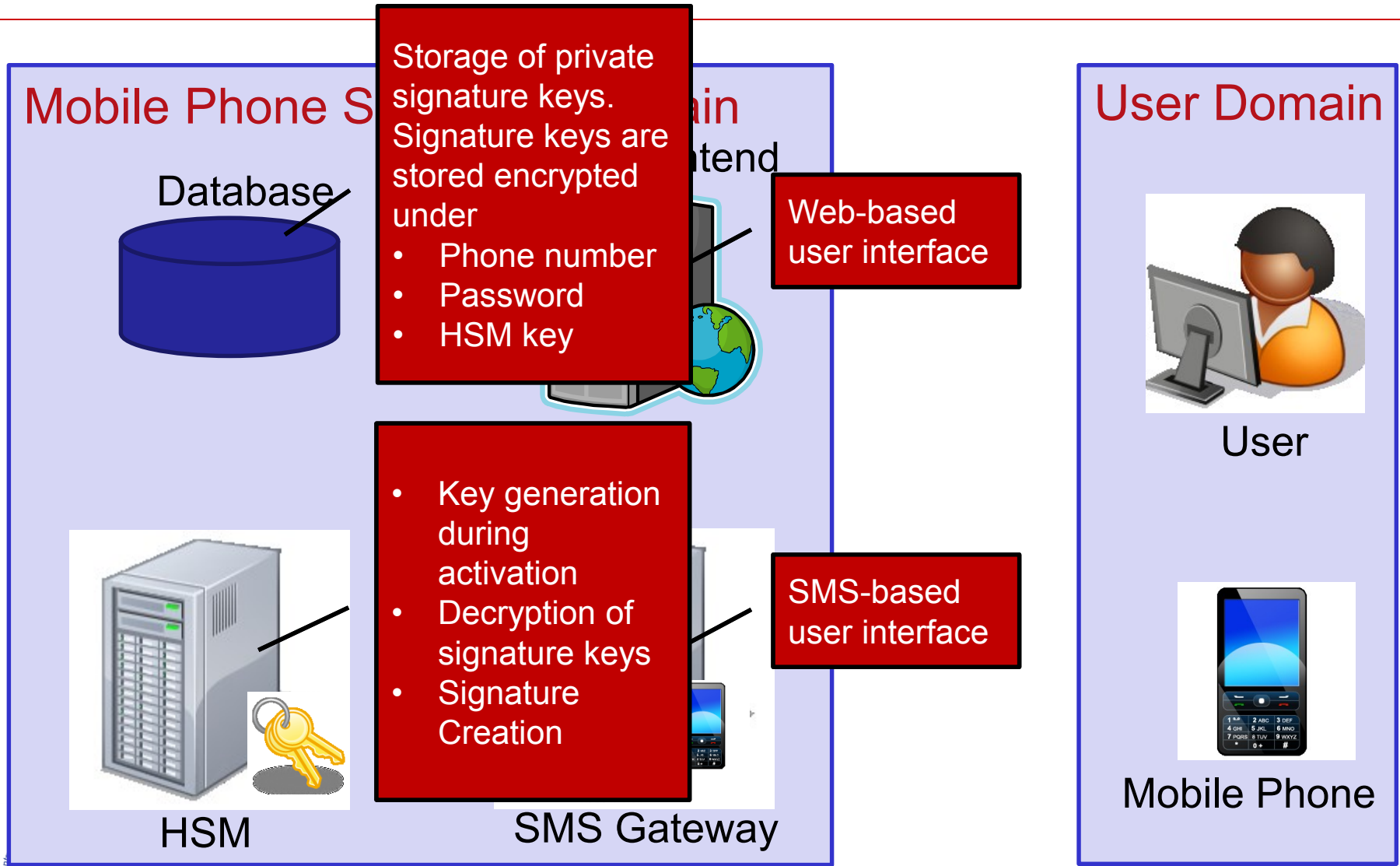
1. Introduction
2. Business Model
3. IT & Technical Architecture
- 4. Security an Privacy**
5. Use Cases and Processes
6. Awareness Raising



Main security / privacy features

- Data-protection is a main feature of the Austrian eID (both smartcard and mobile ID)
 - Sector specific identifiers (cryptographically derived)
 - *Public sector*: per sector identifiers (tax, health, ...)
 - *Private s.:* per organisation (+ additional measures)
- Security based on hardware modules
 - Hardware Security Module
 - Certification as “*secure signature-creation device*” under EU signature Directive; confirmed by a notified body
 - State supervision, regular re-certification and audits

The Architecture



Other guideline questions on section 4

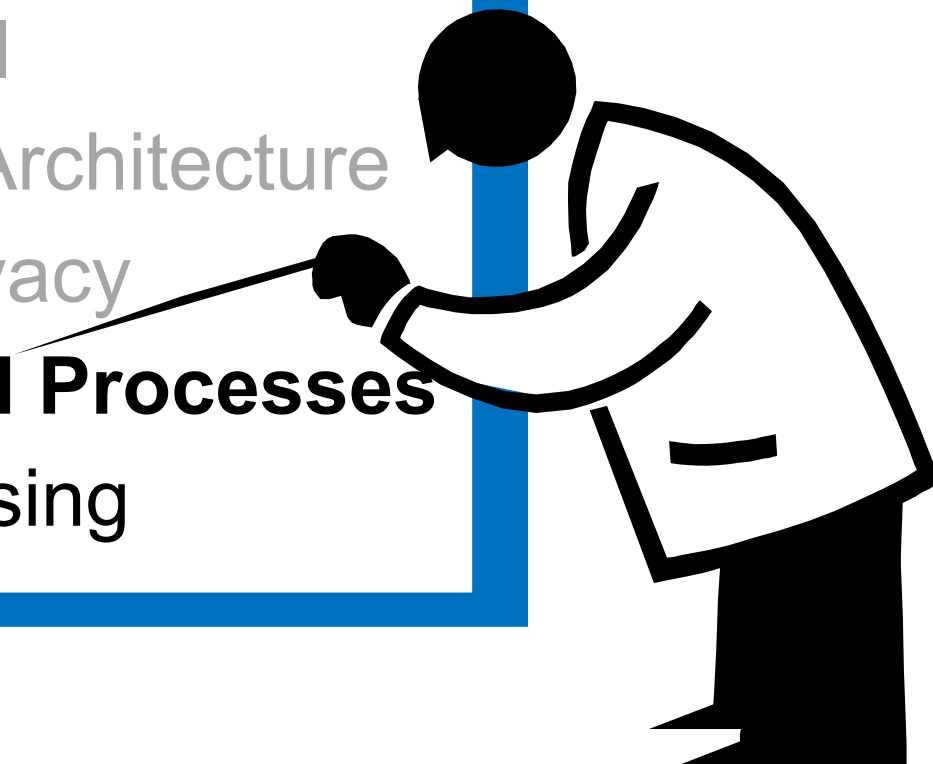
- Have the mID solution been ever hacked or did somebody tried to hack mID? What were the typical attacks?
=> Answer AT: No incident known
- Is there a central certification body? Its is public or private?
=> AT: State supervision (under EU Signature Directive and EU eIDAS); Certification by body notified by the state
- Was there any generated false mID on the market?
=> AT: None known
- What are the key security requirements for secured ID?
=> AT: “SSCD” under EU Signature Directive and “QSCD” under EU eIDAS;
Expected to meet Level of Assurance “high” of EU eIDAS

Other guideline questions on section 4

- How is the mID verified during registration?
=> AT: Various options:
 - Physical presence at Registration Officer showing a photo ID
 - Processes at equivalent security that link to previous phy. presence and can start online (plus e.g. registered letter, bank transfer, ...)
- If mID is an app then how is it certified and distributed?
=> AT: not applicable (*QR-protocol part of SSCD-certification*)
- Is mID device paired with mID?
=> AT: Cryptographic pairing between HSM and QR-app
- How privacy is secured for citizens?
=> AT: Through sector-specific identifiers
cryptographically derived per sector or organisation (private sector)

Contents

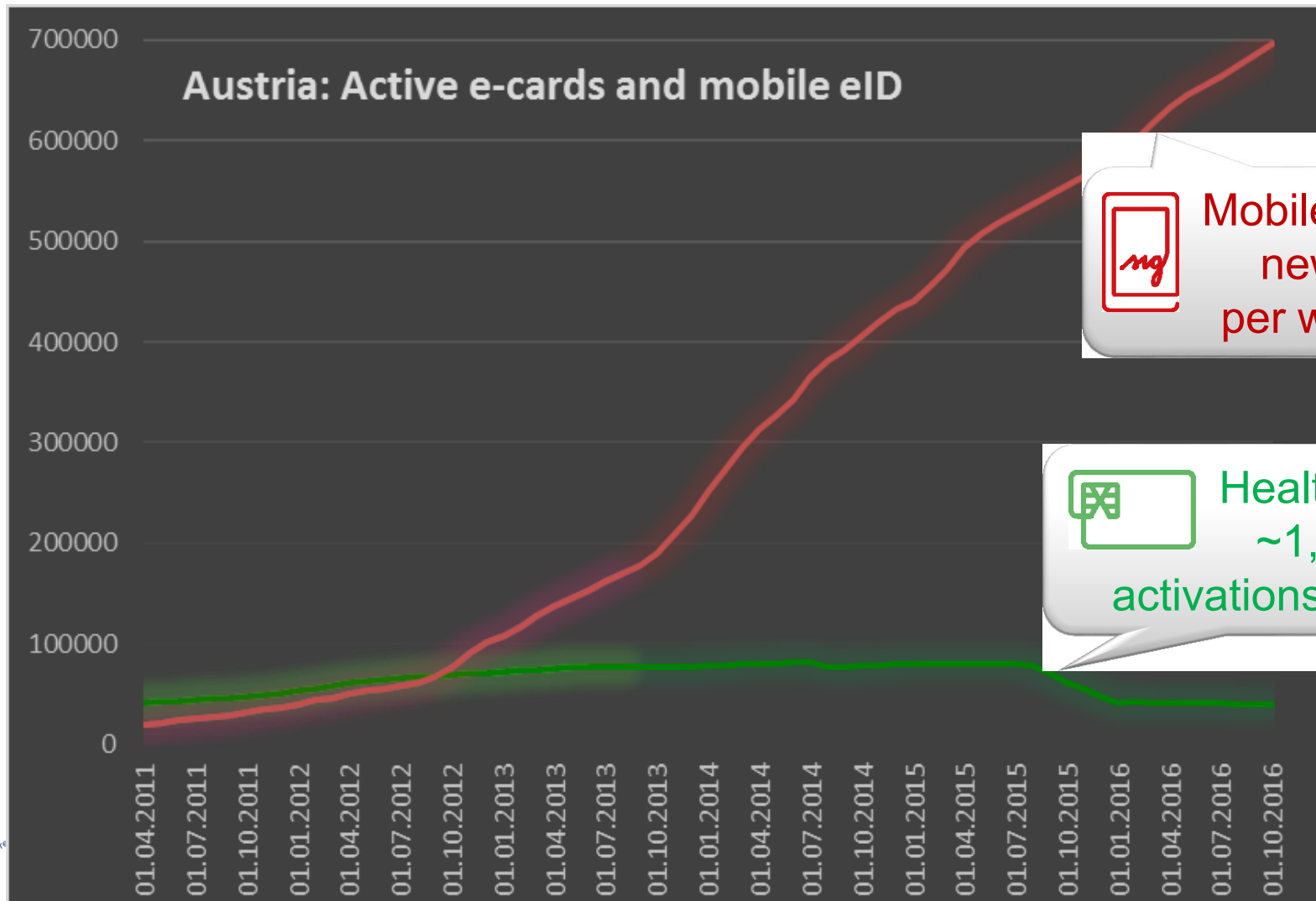
1. Introduction
2. Business Model
3. IT & Technical Architecture
4. Security an Privacy
- 5. Use Cases and Processes**
6. Awareness Raising



Services overview

- Mobile ID used in about 300 online services
 - Both Public Sector and Private Sector
- Offered to all citizens (voluntary)
 - Currently about 700 thousand active mobile IDs
 - *Comparison: about 120 thousand active smartcards*
 - 40 k health insurance cards as eID
 - 80 k profession cards (lawyer, notaries, public officials, ...)
- About 15 – 20 k mobile ID uses per day
(no figures known for smartcard, as it is decentralized)

Austria: Card vs mobile ID active users



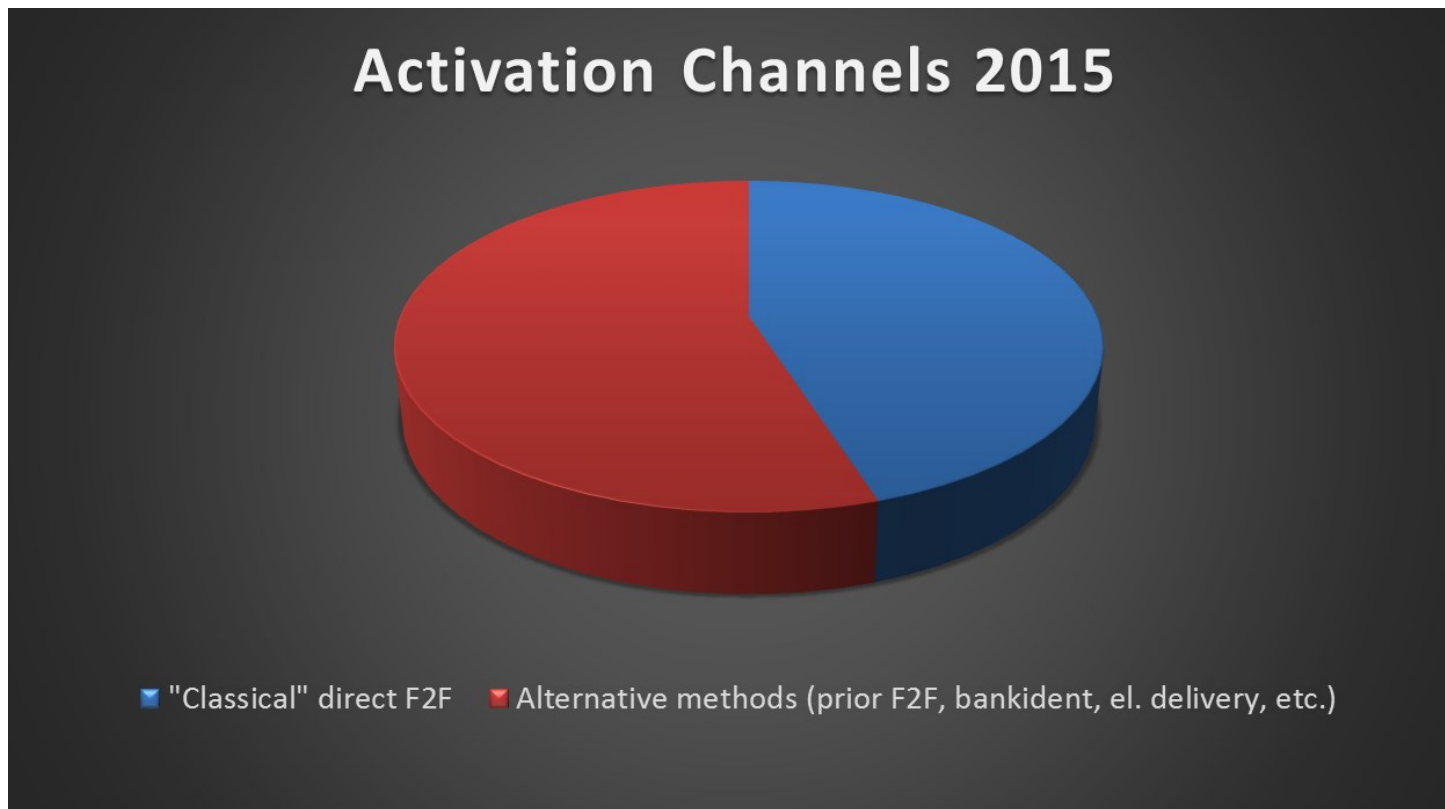
 MobileID ~1k new users per workday

 Health card, ~1,3 k eID activations/month

Registration Options

- Citizen can choose several options
 - Physical presence at Registration Office
 - Post office, tax office, notary, town hall, etc.
 - Online using another eID (e.g. a smartcard)
 - Online through secure alternative authentication and linked to previous physical presence
 - Online banking, tax portal, etc.
 - Depending on process further info (e.g. activation letter)
- **Convenience important to get take-up!**

Joice of convenient registration is essential



Demo: Business Service Portal

https://www.usp.gv.at/Portal.Node/usp/public

serviceportal x

Anmelden > Registrieren

RSS-Feeds
Gebärdensprache
English

UNTERNEHMENSERVICE PORTAL

Formulare
Online Verfahren
Behörden

Gesetzliche Neuerungen
Experteninformation

Alle Themen
News / Newsletter
Sitemap
Impressum

Suche Home

Gründung
Steuern & Finanzen
Mitarbeiter
Laufender Betrieb
Gesundheit & Sicherheit
Umwelt & Verkehr
Außenwirtschaft
IT & Geistiges Eigentum
Förderungen & Ausschreibungen
Übernahme & Auflösung
Brancheninformationen

Eine elektronische Rechnung an den Bund legen – so geht's!

Seit 1. Jänner 2014 dürfen gemäß Gesetz alle österreichischen **Bundesdienststellen** Rechnungen ausschließlich elektronisch – in strukturierter Form – akzeptieren. Ein **Step by Step-Leitfaden** zeigt Lieferantinnen/Lieferanten, wie sie eine e-Rechnung an den Bund erstellen und einbringen können. Erfahren Sie hier, ob auch Sie betroffen sind und wie's funktioniert. Antworten zu häufig gestellten Fragen finden sich unter den **FAQs zur Registrierung und Benutzerverwaltung im USP**.

Jetzt registrieren und alle Vorteile des USP nutzen!

Das Unternehmensserviceportal (USP) ist die Verbindung der Verwaltung zur Wirtschaft. Maßgeschneiderte Informationen und die gebündelten E-Government-Anwendungen des Bundes mit Single-Sign-on-Funktion ermöglichen Behördenwege per Internet. Überzeugen Sie sich in einem **kurzen Film** von den Vorteilen des USP.

Thema des Monats April: Neues Gewerbeinformationssystem bringt Erleichterungen für

USP Service Center
> Antworten auf häufige Fragen
> Kontakt



Demo: Select Card or Mobile ID



https://www.usp.gv.at/uspLoginDAS/loginform?TYPE=33554433&REALMOID=06-03cdc06b-f396- USP: Anmeldung

Datei Bearbeiten Ansicht Favoriten Extras ?

UNTERNEHMENSSERVICE PORTAL

USP Service Center
> Antworten auf häufige Fragen
> Kontakt

Anmeldung mit Bürgerkarte

 
Handy Karte

e Bürgerkartenumgebung

Anmeldung mit USP-Kennung ?

Teilnehmer-Identifikation
Benutzer-Identifikation
PIN

Anmelden > Passwort / PIN vergessen

> Neu am USP? Infos zur Registrierung



Demo: Mobile ID dialogue

The screenshot shows the 'UNTERNEHMENSSERVICE PORTAL' login page. The 'Anmeldung mit Bürgerkarte' section has a 'Mobiltelefonnummer:' field containing '0664608735521', which is circled in blue. A large blue arrow points from the left towards this field. Below it is a 'Signatur Passwort:' field with masked characters. To the right, a 'USP Service Center' sidebar is visible. At the bottom right, a blue callout box contains the text: 'From here 2 variants: a) SMS one-time-code b) QR code app for smartphones'.



Demo: Variant „b“ - QR Code App

The image shows a web browser window displaying the 'Unternehmensservice Portal' login page. The page title is 'UNTERNEHMENSSERVICE PORTAL'. The main heading is 'Anmeldung mit Bürgerkarte'. Below this, there is a 'Vergleichswert: wrp08K69ZK' and 'Signaturdaten'. A QR code is displayed, and it is circled in blue. Below the QR code, there are links: '> lokale Bürgerkartenumgebung' and '> Anmeldung mit Bürgerkarte abbrechen'. There is also a section for 'Anmeldung mit USP-Kennung' with input fields for 'Teilnehmer-Identifikation', 'Benutzer-Identifikation', and 'PIN', and an 'Anmelden' button. A link '> Passwort / PIN vergessen' is also present. At the bottom, there is a link '> Neu am USP? Infos zur Registrierung'. To the right of the main content, there is a sidebar with 'USP Service' and links '> Antworten au...' and '> Kontakt'. To the right of the browser window, a mobile phone is shown displaying the app interface. The app screen shows 'HANDY-SIGNATUR A TRUST', 'AKTUELLE TAN', 'moa.brz.gv.at', and 'Vergleichswert: wrp08K69ZK'. A QR code is displayed on the app screen, also circled in blue. At the bottom of the app screen, there are buttons for 'DOKUMENTE ANZEIGEN' and 'AKTUALISIEREN'.

Demo: Representation information

https://www.usp.gv.at/attrLv15/ImpLogin/becomeuser.jsp

Unternehmen auswählen
Bitte wählen Sie das Unternehmen aus, für das Sie jetzt tätig werden wollen.

- Stiftung Secure Information and Communication Technologies - SIC**
8010 Graz
Teilnehmer: 14217749u807
Benutzer: hleitold1
- Leitold Herbert DI**
8010 Graz
Teilnehmer: 211904b48256
Benutzer: bk05oidy

OK Abbrechen

USP Service Center
> Antworten auf häufige Fragen
> Kontakt



Demo: Done

https://www.usp.gv.at/Portal.Node/usp/secure

Herbert Leitold, Stiftung Secure Information and Communication Technologies - SIC

Abmelden

Formulare
Online Verfahren
Behörden

Gesetzliche Neuerungen
Experteninformation

Alle Themen
News / Newsletter

Lexikon
Hilfe / Sitemap
Impressum

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Gebärdensprache
English

UNTERNEHMENSERVICE PORTAL

Suche Home

Gründung
Steuern & Finanzen
Mitarbeiter
Laufender Betrieb
Gesundheit & Sicherheit
Umwelt & Verkehr
Außenwirtschaft
IT & Geistiges Eigentum
Förderungen & Ausschreibungen
Übernahme & Auflösung
Brancheninformationen

Anleitung zur USP-Administration

In der PDF-Anleitung zur USP-Administration finden Sie Schritt für Schritt, wie man neue Benutzerinnen/neue Benutzer anlegt, diesen Verfahrensrechte wie etwa jenes für die e-Rechnung an den Bund zuordnet und auch wieder entzieht.

News

Lkw-Fahrverbotskalender 2015
Befristete Beschäftigung ausländischer Erntehelfer in der Landwirtschaft
Automatischer Informationsaustausch für Steuervorabbescheide

> Alle News anzeigen

Formulare

Sie suchen ein bestimmtes Formular beispielsweise aus dem Steuer- oder Umweltbereich? Hier finden Sie zahlreiche

Mein USP

sic

> Unternehmensdaten anzeigen
> Administration aufrufen
> Logo ändern
> Unternehmen wechseln

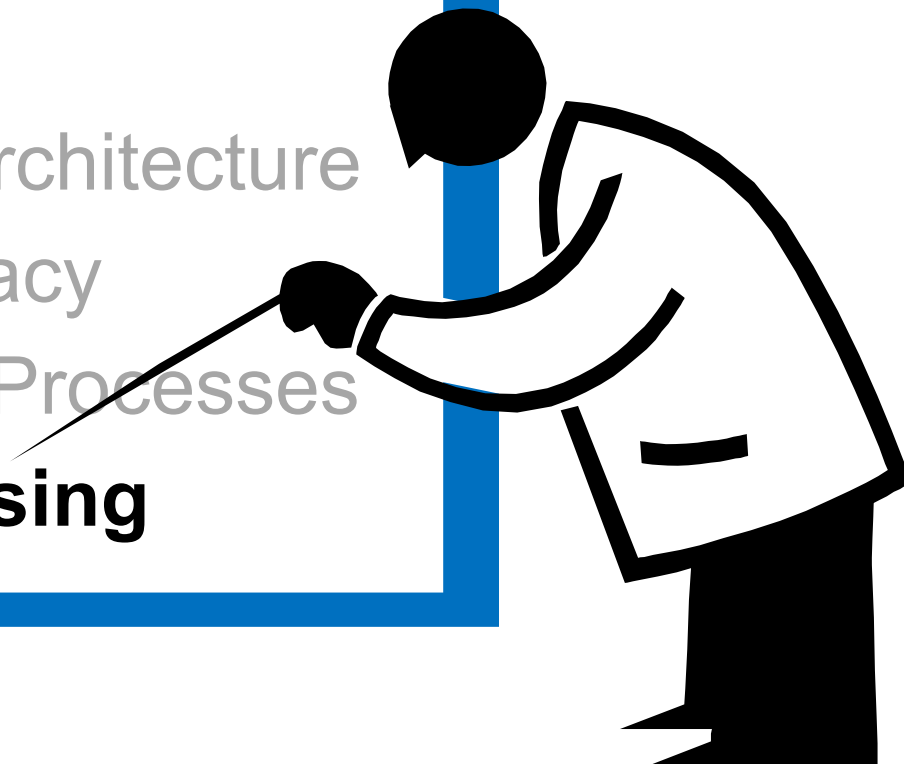
Meine Services

> FinanzOnline
> Services des RH



Contents

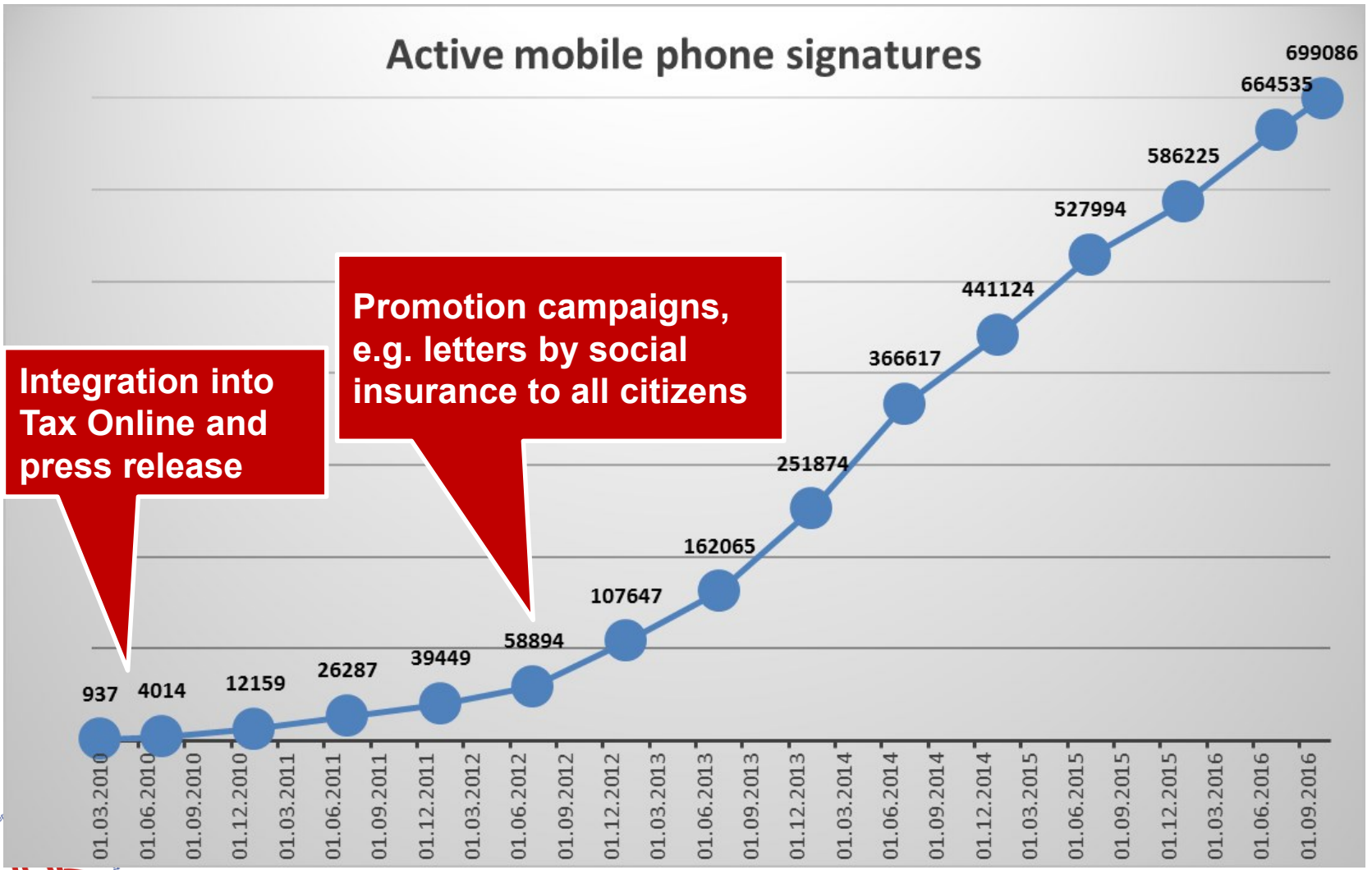
1. Introduction
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Awareness rising

- To Service Providers
 - through events (conferences, workshops)
 - through E-Gov. coordination “Digital Austria”
- To Citizens
 - Web: www.buergerkarte.at
 - Advertisements: press, radio, Websites
 - Mailings: e.g. inclusion in pension account letters by to all citizens by social insurance
 - Integration/mentioning in public sector Web sites (e.g. tax portal)

Core promotional milestones



The end



Thank you for your attention!