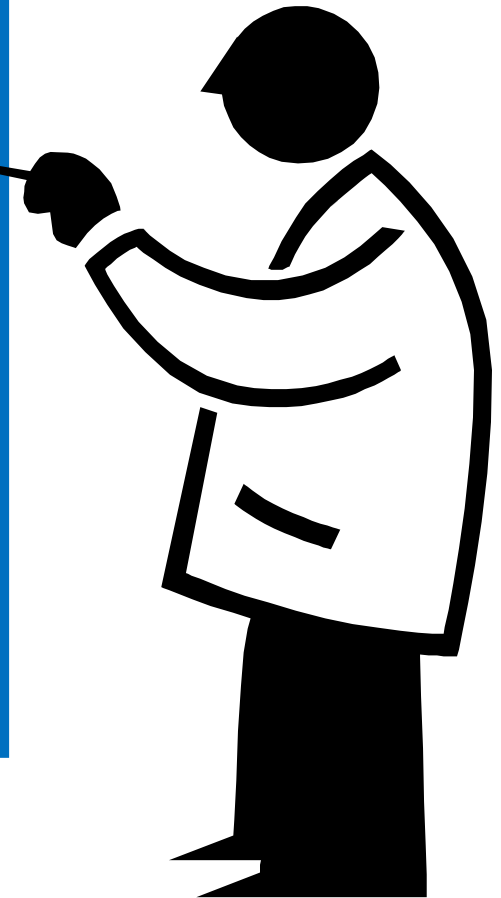# The Austrian mobile ID

Herbert.Leitold@a-sit.at

Mobile ID Forum; London, April 29th, 2015

Contents

- eID in Austria

- Austrian Mobile ID/Signature

- Usage and Business Model

- Lessons Learned, Challenges

Austrian Citizen Card - an Overview

- Launched 2003, mass-rollouts from 2005
- Defines functions, not the technology
  - Identification, *sector-specific to enhance privacy*
  - Qualified signatures, *for written form*
  - Electronic mandates, *representation*
- Technology-neutral approach allowed for different implementations
  - Smartcards and mobile ID from 2005

The technologies

Smartcard

Bank cards
from 2005; ceased

Health insurance card
since 2005

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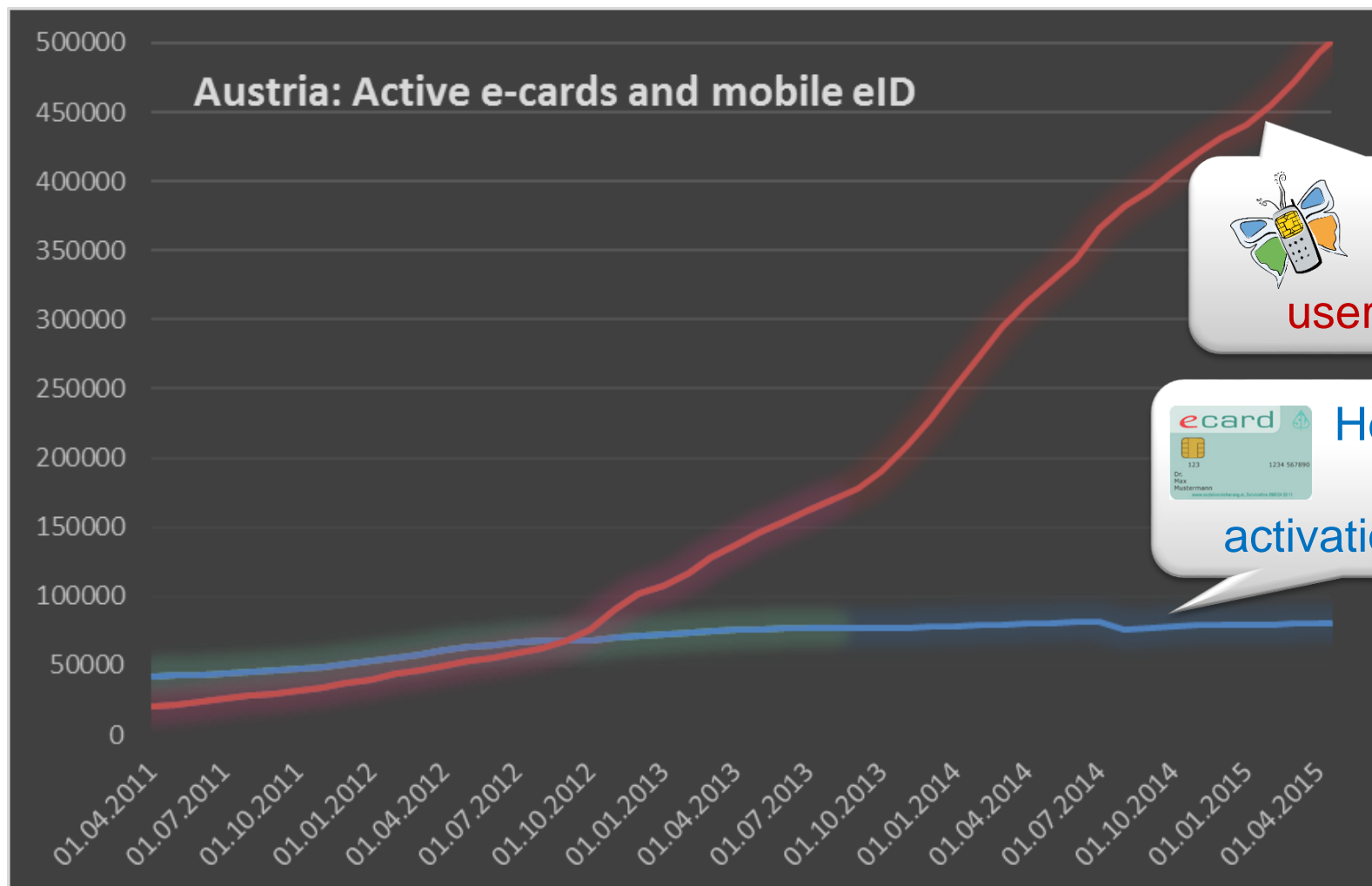*e.g. notaries, lawyers, ministries, …*

Mobile

A1 signature
service by a MNO
from 2005; ceased in 2008
limited success

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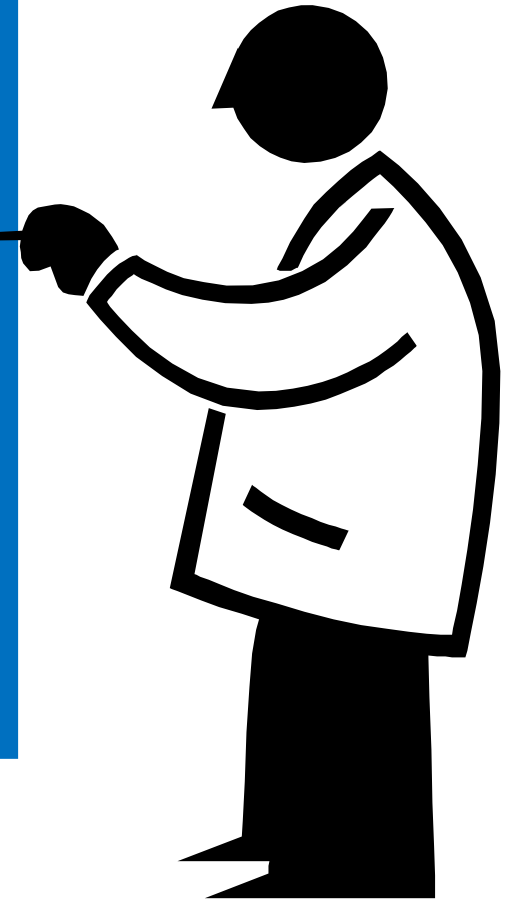*Success? Well, let's see ...*

Card ID vs mobile ID in Austria

Austria: Active e-cards and mobile eID

Mobile ID ~1 k new users/workday

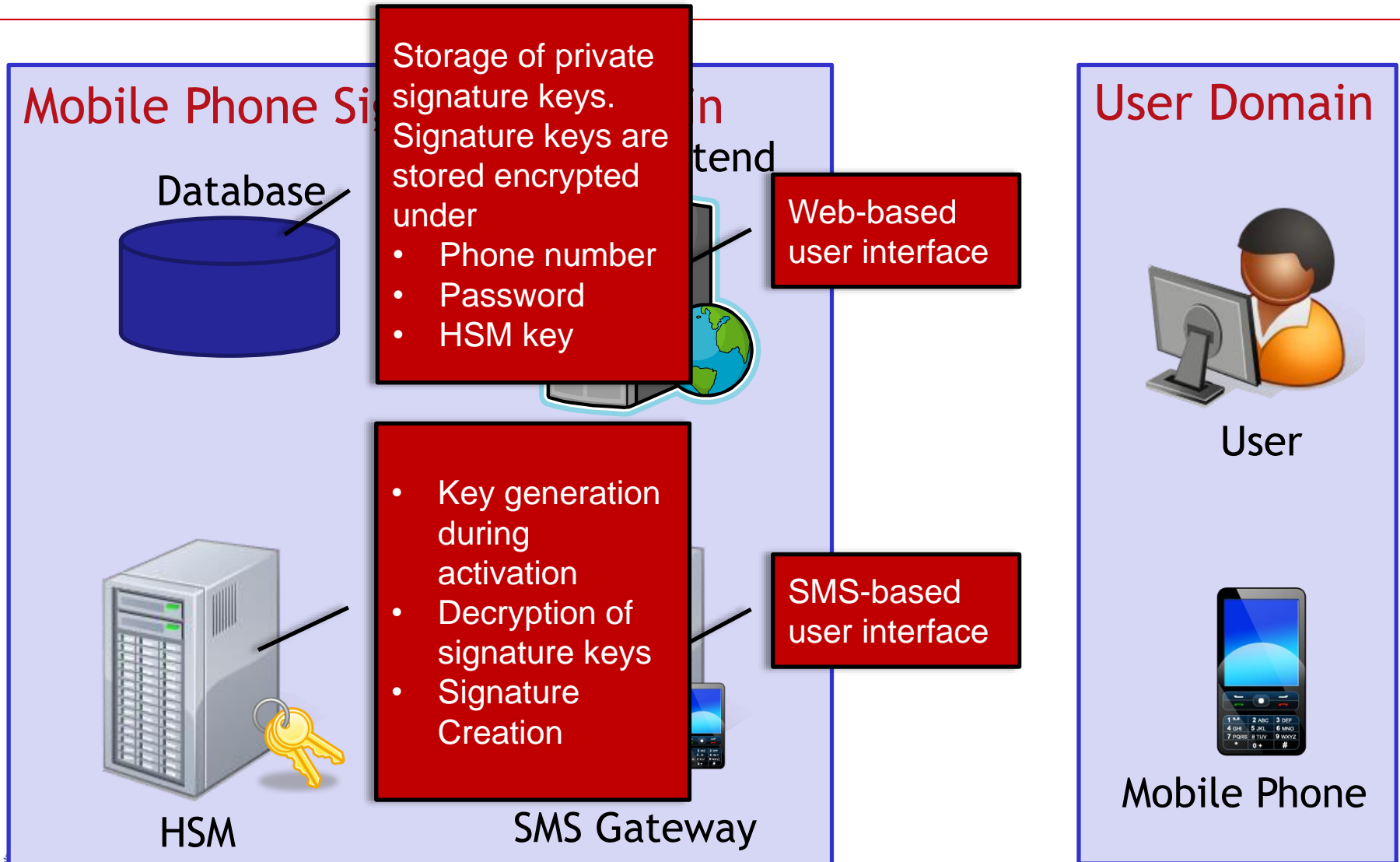Health card, ~1,3 k eID activations/month

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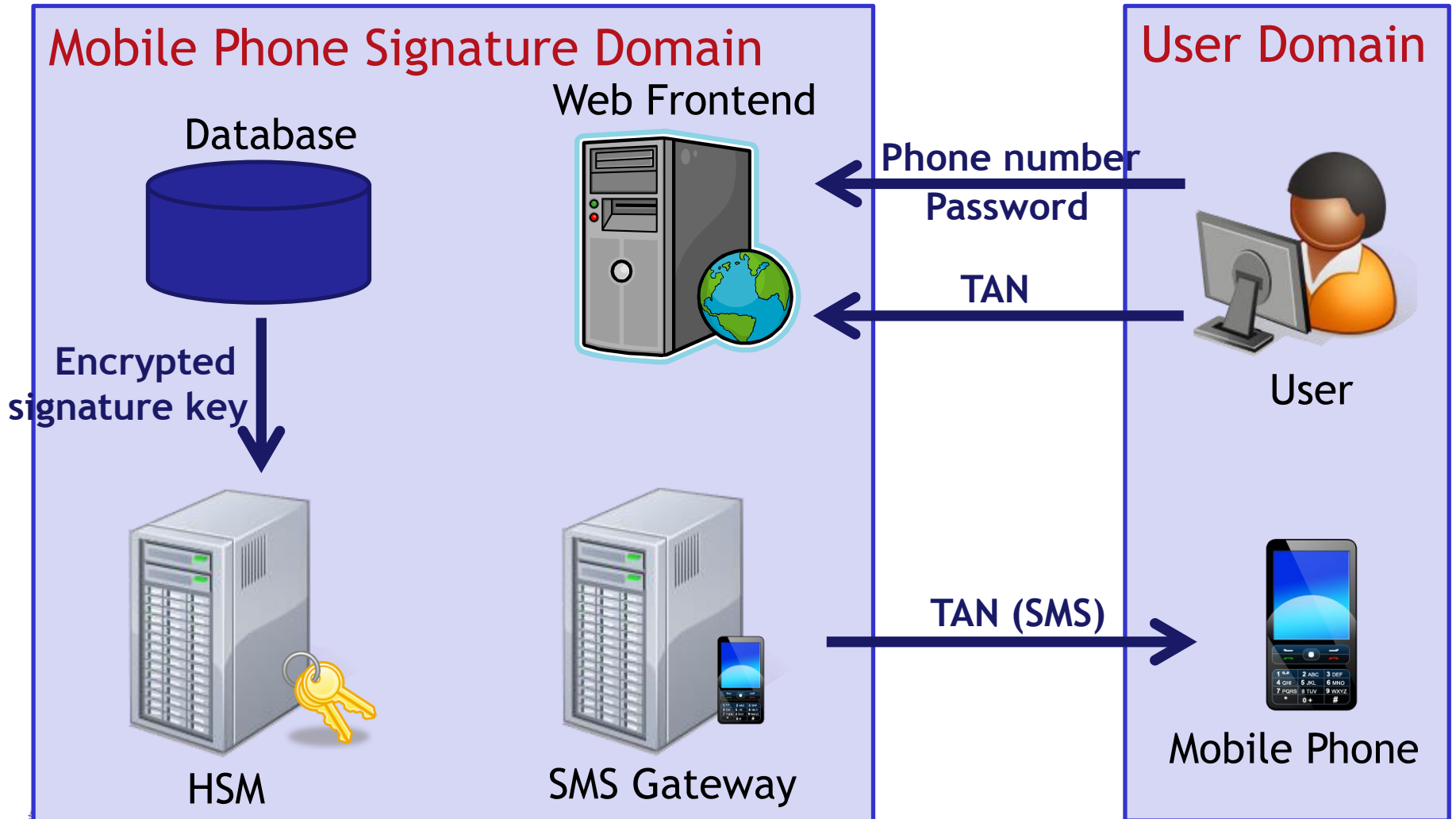- Lessons Learned, Challenges

The Basics

- Follows a server-based approach
  - Crypto-keys kept at a central server (HSM)
  - 2-factor authent. (knowledge and possession)
- Secure Signature-Creation Device (SSCD)
  - Confirmed by notified body under 1999/93/EC
- Service operated by a certification service provider (CSP) for qualified certificates
  - Could be operated by any provider (MNO, etc.)

The Architecture

Mobile Phone Sign**a**tion

User Domain

Database

Storage of private signature keys. Signature keys are stored encrypted under
- **Phone number**
- **Password**
- **HSM key**

Frontend

Web-based user interface

- **Key generation during activation**
- **Decryption of signature keys**
- **Signature Creation**

SMS-based user interface

HSM

SMS Gateway

User

Mobile Phone

A-SIT

The Operation

Mobile Phone Signature Domain

Database

Web Frontend

Encrypted signature key

HSM

SMS Gateway

User Domain

Phone number Password

TAN

User

TAN (SMS)

Mobile Phone

Demo – Business Service Portal

Demo – Select Card or Mobile ID

Demo – Mobile ID dialogue

Demo – Proof of possession

Demo – Representation information

Demo – Done

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Initial design considerations

- Easy to use, no additional effort for citizens
  - E.g., no change of SIMs
- Independent from mobile device and MNO
  - Server-based credentials, Web-based approach
- Gvmnt. has interest in broad take-up
  - Free of charge for citizens
    - as it is the case for health card eID
  - No costs for public or private relying parties
    - qualified certificates and SMS costs paid by gvnmt.

Deyployment (through STORK LSP)

Start of productive operation

Certification by notified Austrian body A-SIT

AT initial planning

Launch of pilot

Signed contract with A-Trust

Mar Apr May Jun Jul Aug Sep Oct Nov [2009]

Actual usage ...

- About 10-15 k/day uses on a typical working day
- ~4-6 k/day uses on weekends

Handy-Signatur:
Aktivierung und durchgeführte Signaturen in den letzten 24 Stunden

Aktivierungen Signaturen
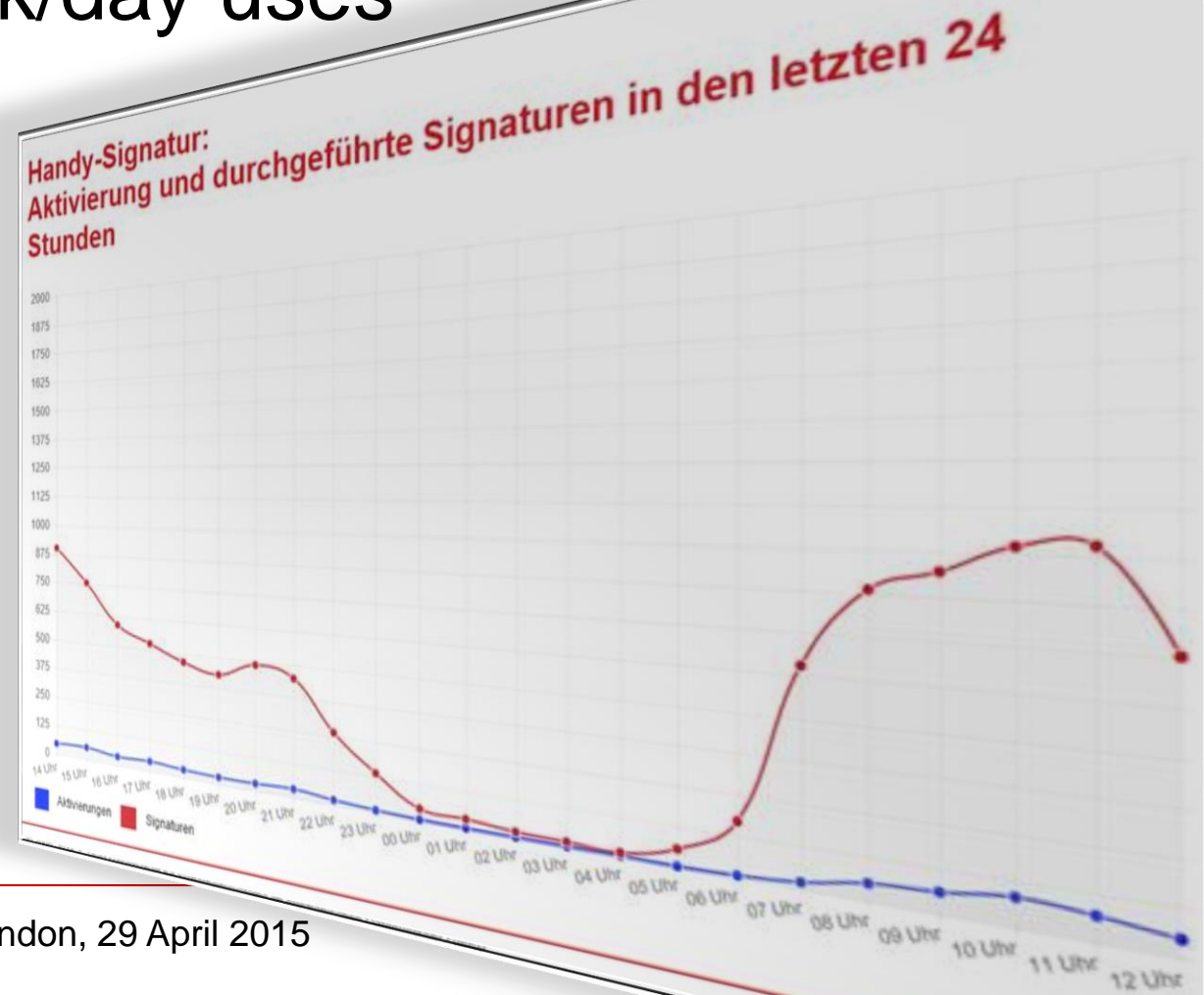
Core promotional milestones
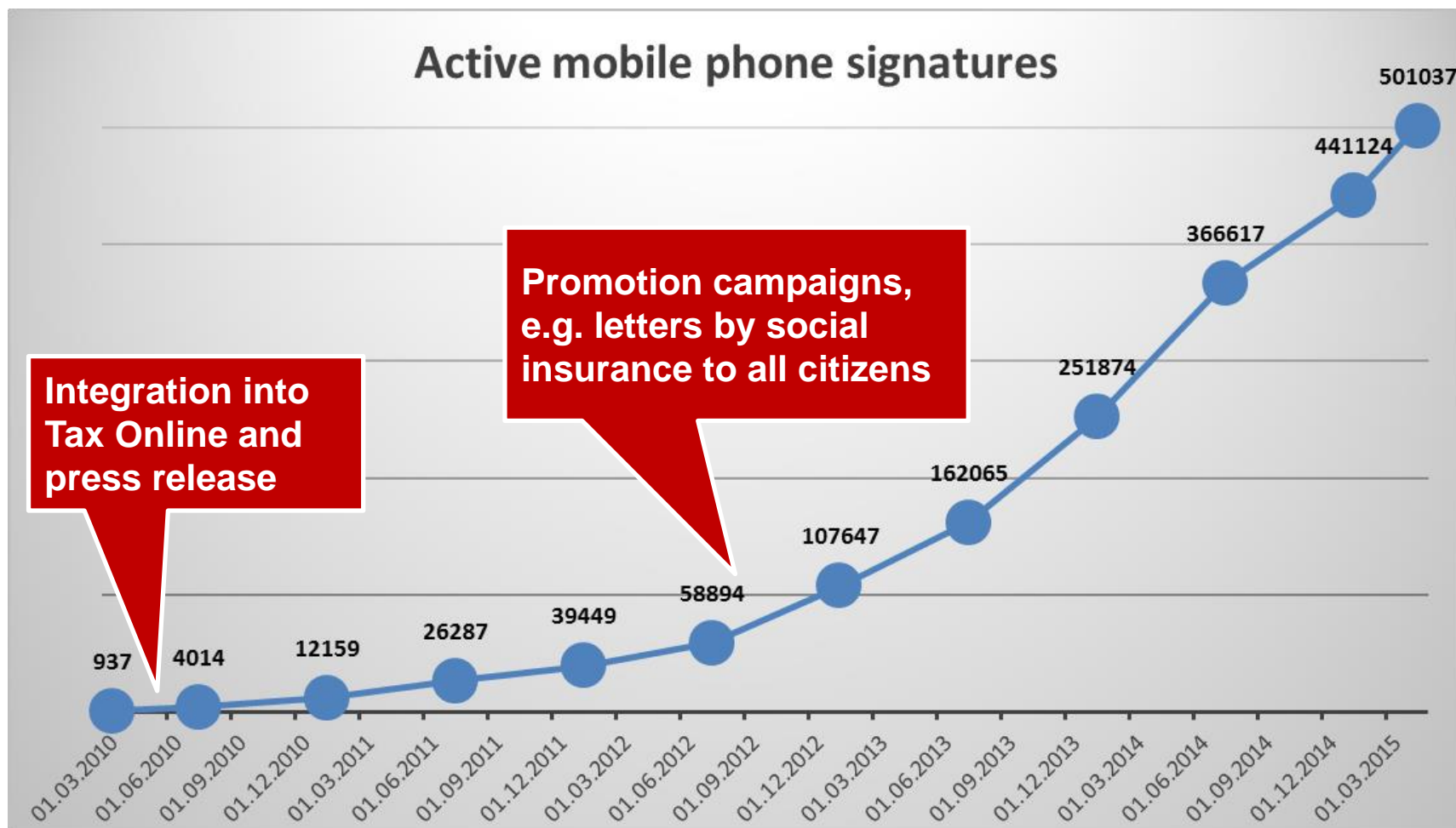
Active mobile phone signatures

Integration into Tax Online and press release

Promotion campaigns, e.g. letters by social insurance to all citizens

937, 4014, 12159, 26287, 39449, 58894, 107647, 162065, 251874, 366617, 441124, 501037

01.03.2010, 01.06.2010, 01.09.2010, 01.12.2010, 01.03.2011, 01.06.2011, 01.09.2011, 01.12.2011, 01.03.2012, 01.06.2012, 01.09.2012, 01.12.2012, 01.03.2013, 01.06.2013, 01.09.2013, 01.12.2013, 01.03.2014, 01.06.2014, 01.09.2014, 01.12.2014, 01.03.2015

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Lessons learned

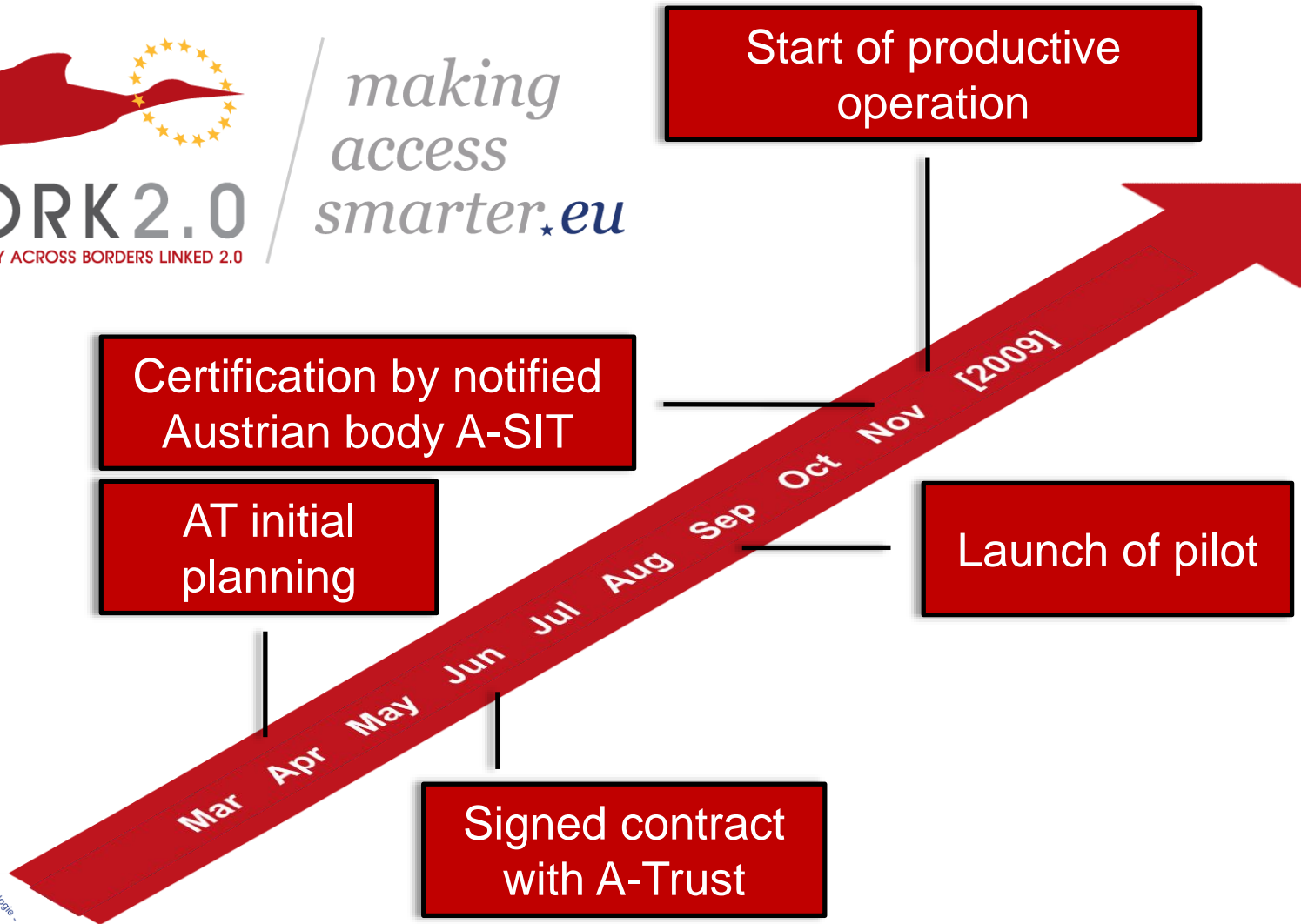- ## Smartcard eID
  - Satisfactory business users take-up
  - But somehow limited take-up by citizens

- ## Mobile eID a clear preference by citizens
  - In 2014 about 15 times higher mobile ID activation to health card activation
    - Under comparable conditions like free of charge

- ## Ease of use and easy activation essential

Challenges

- Server-based approach supported take-up
  - Easy activation, no citizen device requirement
- Advent of smartphones calls for …
  - reconsideration of two device policy
    - So far "browser at PC/laptop" + "mobile for SMS"
  - investigating advanced device binding
    - QR codes or devices key
    - Secure Elements; NFC tags

Thank You for Your Patience and Attention!

Herbert Leitold

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Secure Information Technology Center – Austria