The Austrian e-card project

An Overview

Walter M. Bugnar – project manager

The Austrian e-card project - An Overview

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Vision of e-card System and Basic Application

Project Figures, Features, System Overview

e-card Project: Multi-Organisation Enterprise
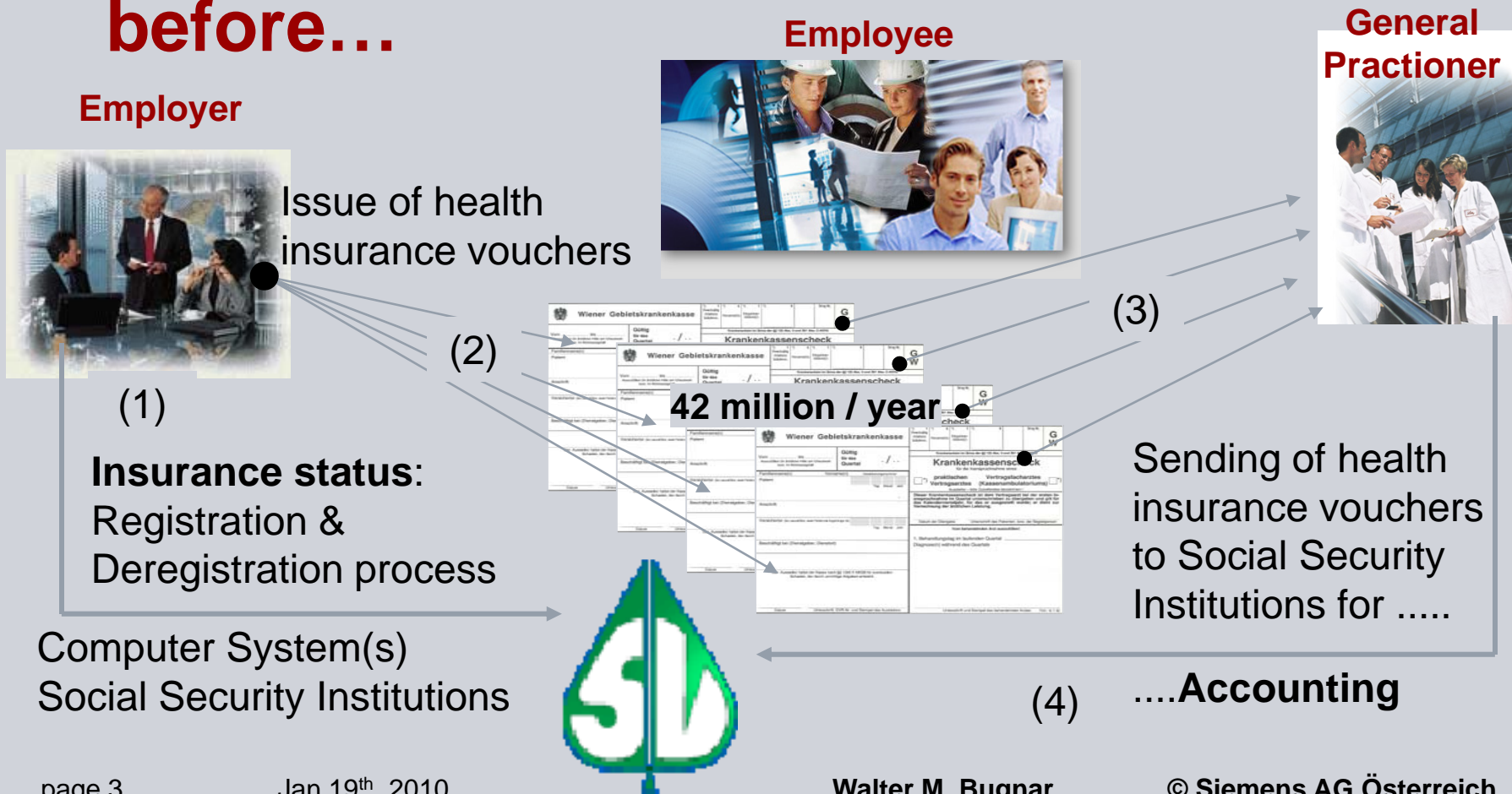
Time Schedule and Rollout Figures

The e-card Project meets Goals

Extended e-card Usage

„Consultation of a Doctor" …how it was before…

Employee

General Practioner

Employer

Issue of health insurance vouchers

(2)

(3)

(1)

42 million / year

Insurance status:
Registration & Deregistration process

Sending of health insurance vouchers to Social Security Institutions for .....

Computer System(s)
Social Security Institutions

(4)   ....**Accounting**

… then we created a vision: „e-card operates in the fields of e-Social Security, e-Health, e-Government and e-…"

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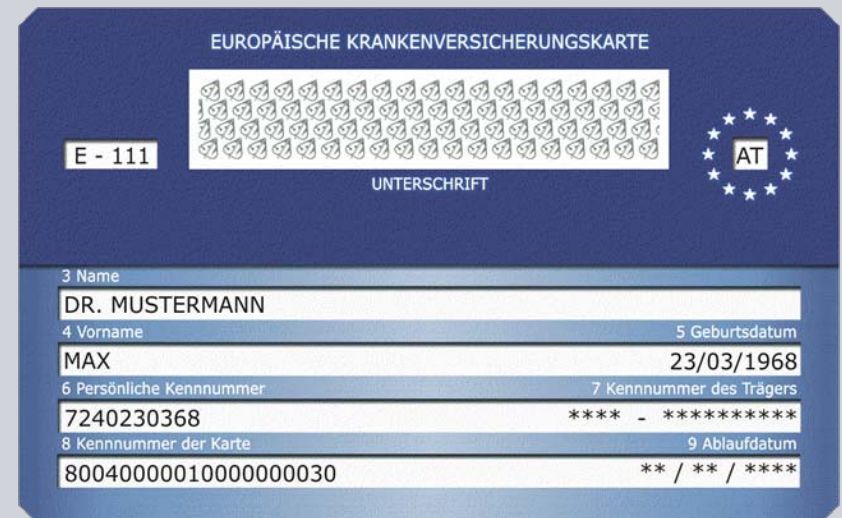The e-card Project meets Goals

Extended e-card Usage

Jan 19th, 2010   **Walter M. Bugnar**   **© Siemens AG Österreich**

The e-card layout

Front

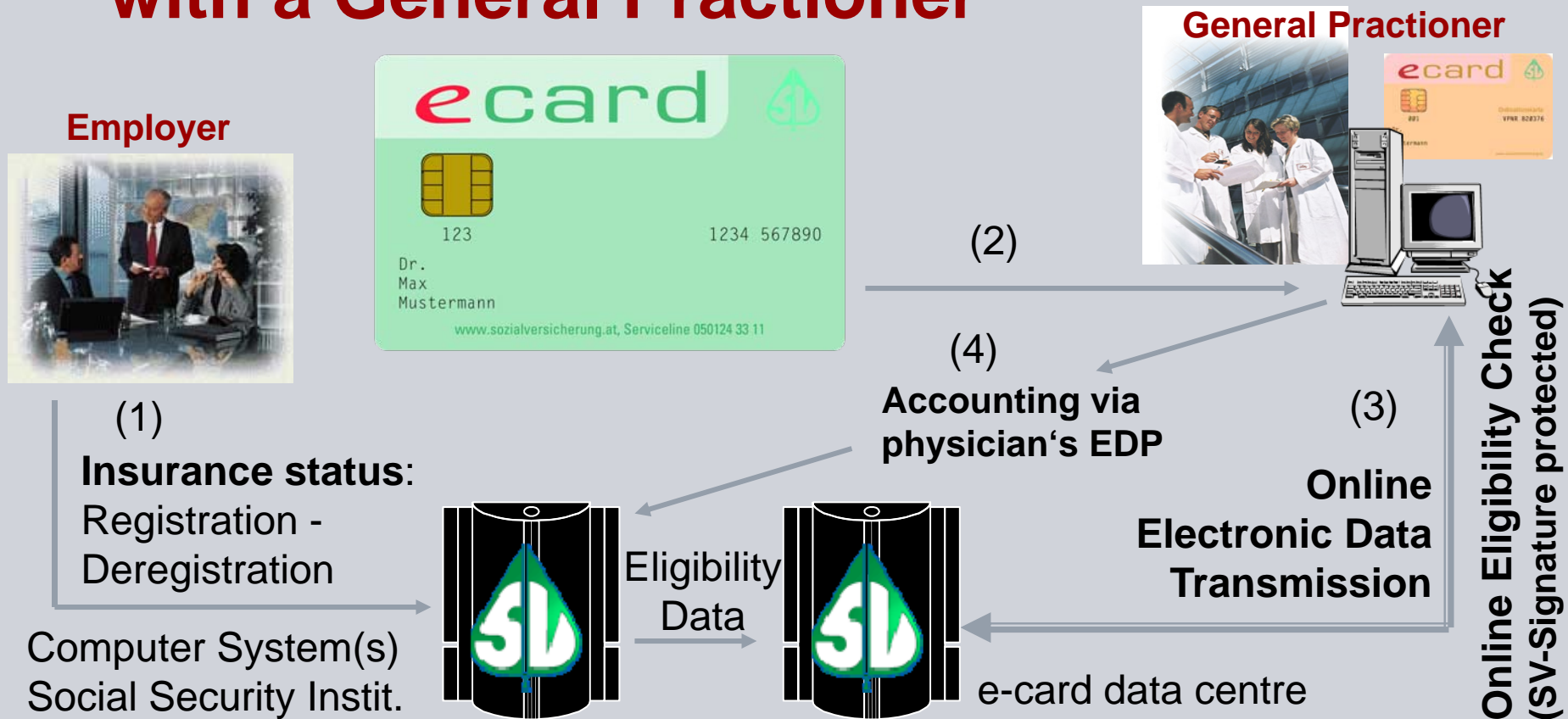### Back
with European Health Insurance Card

Features of the e-card

- The e-card is a **smart key card** and **signature card** enabling reliable verification of health care entitlements

- The e-card incorporates **2 signature applications** which support
    - Secure Electronic Signatures (for e-gov applications according to SigG and SigV)
    - Social Insurance Signatures

- The e-card stores holder's name, date of birth, sex, social insurance number, card serial number and user group identification

- The e-card is the **European Health Insurance Card**
    - replaces form E-111 for stays abroad
    - valid in the EU, EEA and Switzerland

Result: The e-card Process „Consultation with a General Practioner"

General Practioner

Employer

(2)

(4)

Accounting via physician's EDP

(1)

(3)

Insurance status:
Registration - Deregistration

Online Electronic Data Transmission

Computer System(s) Social Security Instit.

Eligibility Data

Online Eligibility Check (SV-Signature protected)

e-card data centre

Advantages of the e-card

Insured

General Practioner

- **Easier access to medical help**
- **Protection of privacy**

- **Efficient use of IT**
- **Minor administration expenses**

Employer

Social Insurance

- **No issue of health care vouchers**

- **Reliable verification of entitlements**
- **Minor administration expenses**

# Requirements to the Compound System - Government Requirements

- Design of the e-card as a „Key card"
- Access to personal data after approval of the cardholder (§31a (2) ASVG)
- Reload ability of health data on the smart card
- The e-card system shall support the transparency of medical services and costs
- Acceptance of other cards with „Citizen Card Functionality" (i.e. prepared for e-government).

Requirements to the Compound System - Openness of the System

- Modification of „Conditions for Entitlement"- rules:
Requires software-updates by the operating company, which is specifically supported by the online-system

- Load ability of new applications:
Post Issuance Personalization and downloading of data, data structures and cryptographic key-files to the e-card

- Innovation and migration:
Simultaneous operation of several „generations" of smart cards with different scope of applications

The e-card network
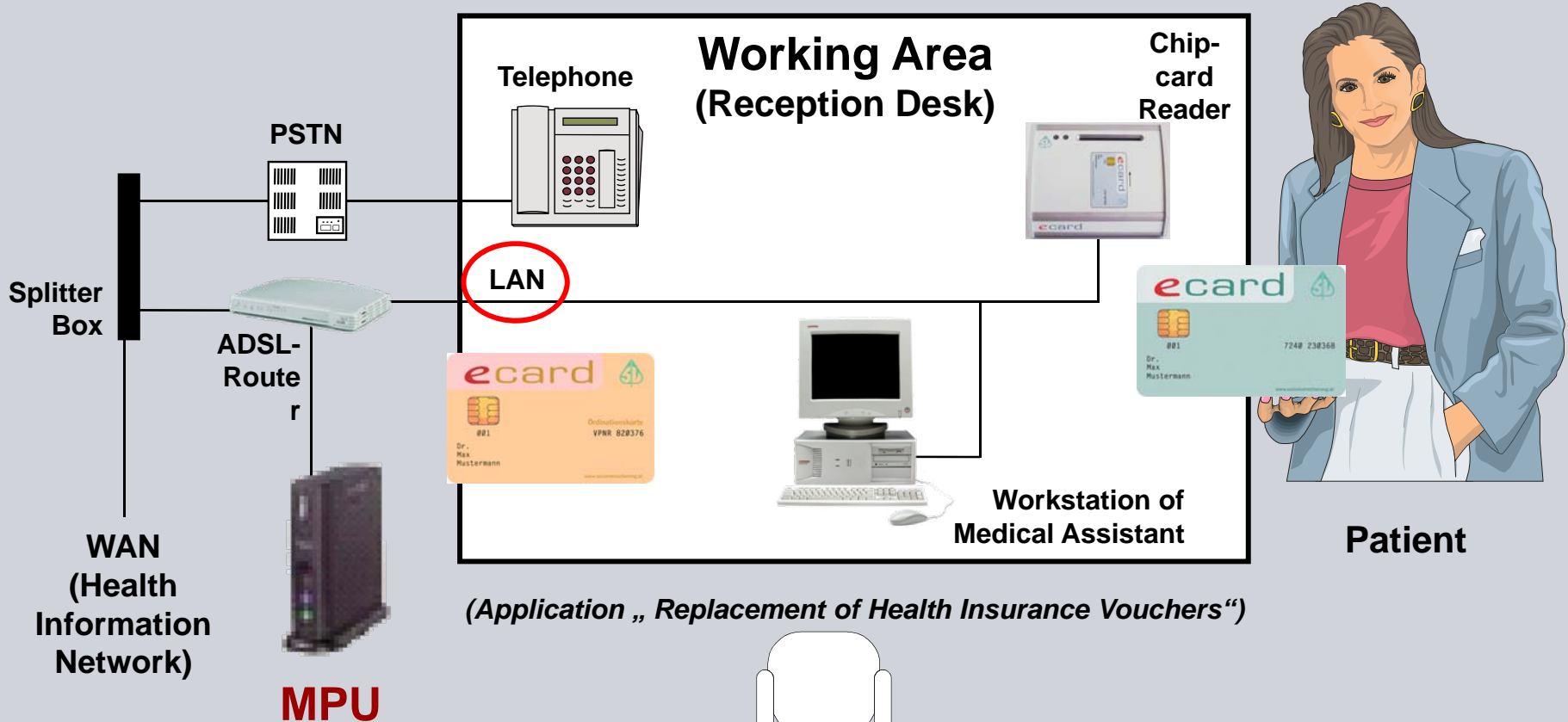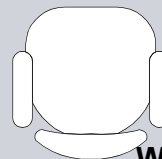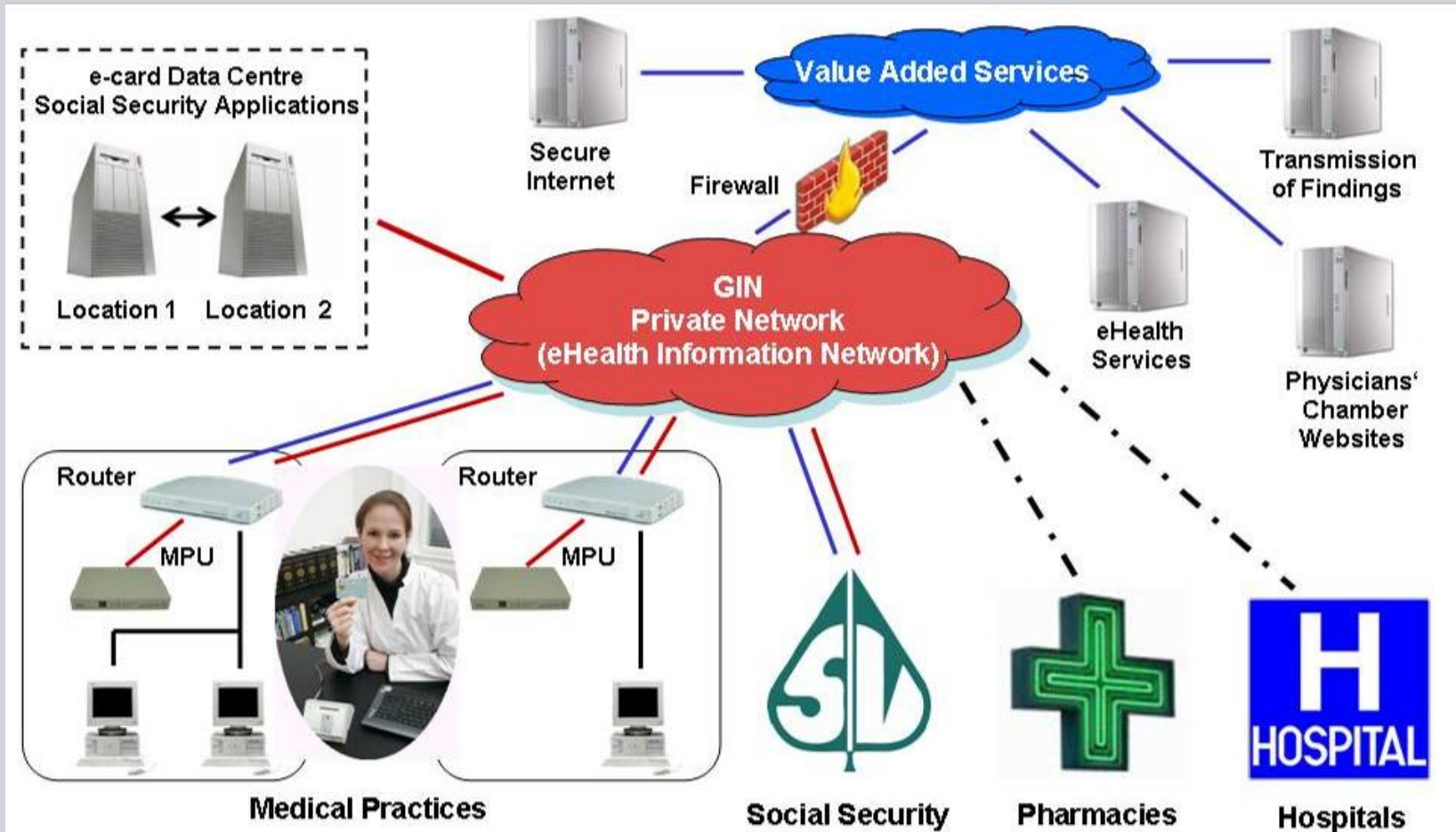
Risk potential

- High degree of innovation – technological risks:
  - **deadline constraints**
  - **multiple applications**, **open** system
  - **Online system**: max. 5 s response time
  - **high availability**: 99,97 p.a.
  - **Digital signature cards**: 8 Mio. citizens
  - **Implemented** in approximate 12.000 Medical Practices
  - **Network**: consistent Broadband connection (ADSL)
  - **Citizen card functions**
  - domains: **social insurance**, **e-Health**, **e-Gov**, e-Commerce
  - **Interoperability** (EU application „eE111")

- virgin soil:
  - **Signature procedure** (algorithms, processes, applications)

- Diversity of targets:
  - interest of the political clients changed:
  - „electronic administrative system" of the social insurance changed to an **infrastructure for e-health & e-government projects**

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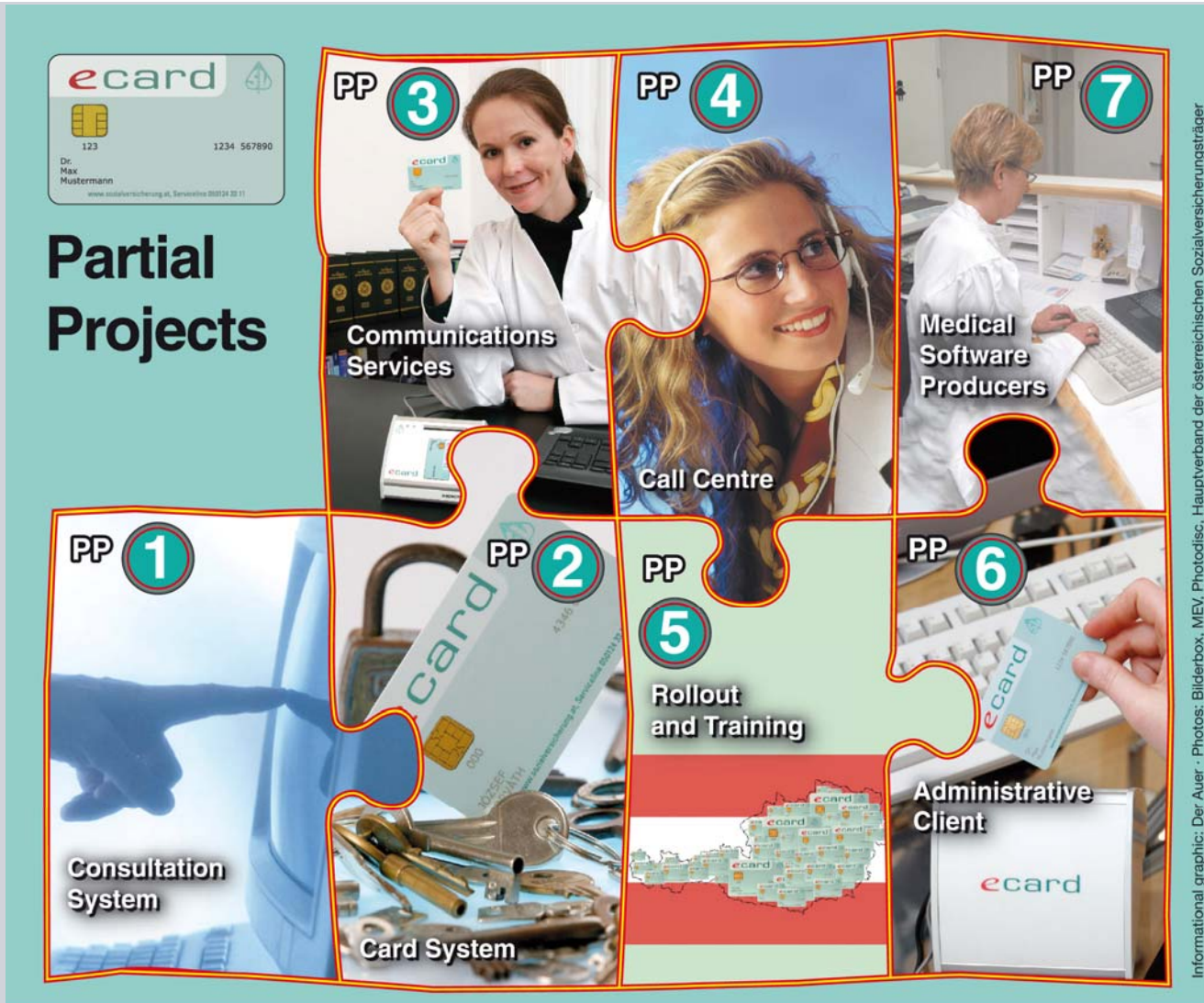e-card Project: Multi-Organisation Enterprise

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Nr.	Partial Project	Contractor / Organization	Contract Award
1	**Consultation System**: Operational Server Centre and Terminal Software	Siemens Business Services GmbH&Co (IBM-Austria GmbH, Telekom Austria AG, Scientific Games Intern. GmbH.)	03.01.2004
2	**Card System**: Health Insurance Smart Card System and Trust Center Functions	Giesecke & Devrient (Deutsche Post Com, Bell ID B.V., BRZ Austria GmbH)	09.04.2004
3	**Communications Services**: Data Networks incl. Rollout of e-card IT-Components	Telekom-Provider	---
4	Call Center	Competence Call Center	18.08.2004
5	**Training** for Personnel dealing with User Interfaces in Medical Practices	Performed by Contractor of TP1	CRQ 07/2004
6	**Administrative Client** of the Social Security Institutions	Main Association of Austrian Social Security Institutions	---
7	**Coordination of Medical Practice Software Providers**	Project Management of SVC	---
EPC	**External Project Controlling** Risk and Requirements Management	ESG Elektroniksystem- und Logistik-GmbH	30.03.2004

At least 15 organizations with substantial contributions

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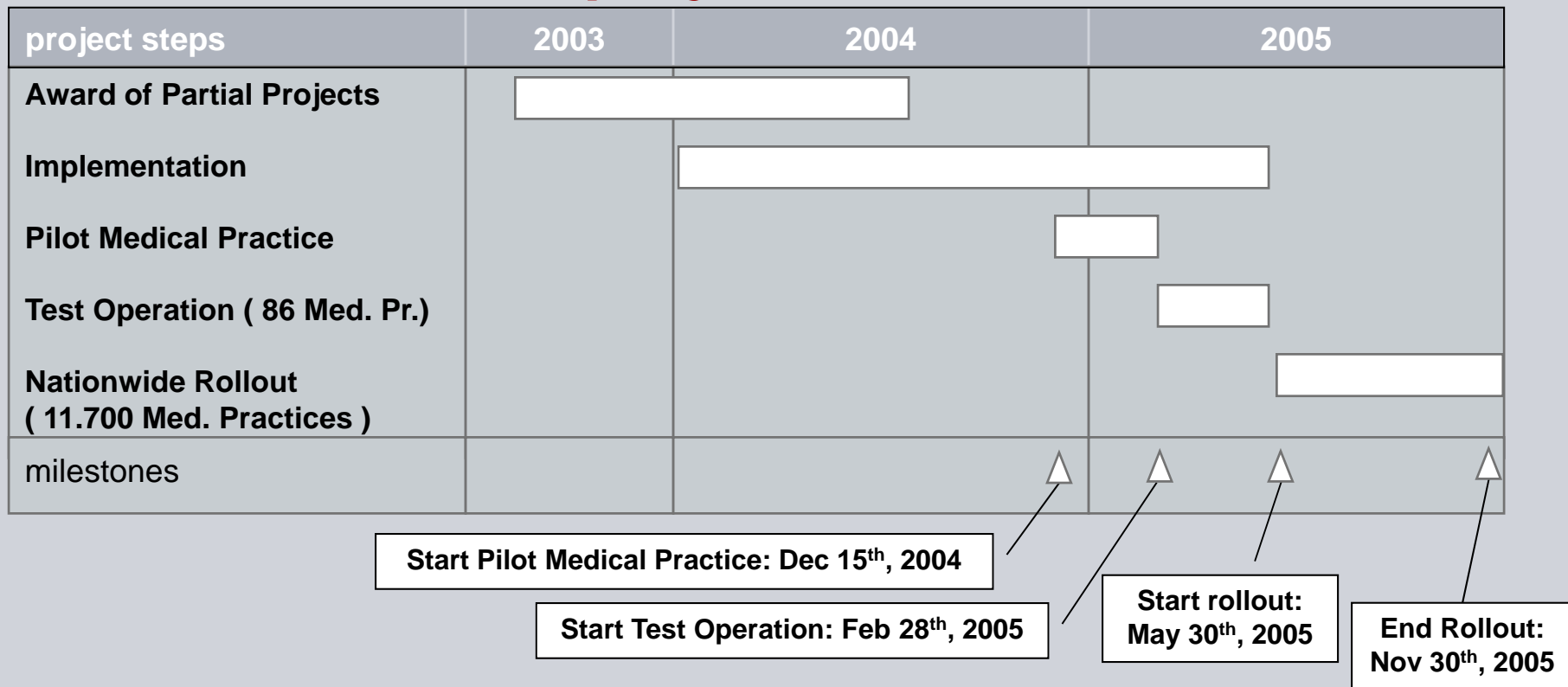
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Rollout Figures

	Current Value	Percentage	Planned Value
e-cards shipped **Spare Cards**	**9.024.000** 824.000	**>100,0%** 11,5%	**~ 8.200.000** 5% p.a.
e-card Systems installed	**11.700**	**99,4%**	**~ 11.770**
End User Trainings **(for Participants)**	**656** **(26.025)**	**>100,0%**	**~ 650**
MPUs produced	**12.500**	**100%**	**~ 12.500**
LAN Card Readers produced	**18.000**	**100%**	**~ 18.000**
Transactions (Average per day)	**320.000 – 590.000**	**214% – 280 %**	**210.000 per day**
Hotline Calls (Average per year) **GPs** (Average per Day) **Patients** (Average per Day)	**605.000** **400 – 1.100** **800 – 1.500**		**600.000 p.a.**

Lessons learned

- **Modelling of established processes through IT**
  - 1:1 - Modelling deteriorates processes
  - IT functions modifies the processes
  - Reconstruction of current processes is expected
  - Legal framework must be adapted
  - IT-based processes changes the organization

- **Feedback from practice**
  - GUI-adaptation for the eligibility check (very first application)
  - Process optimization by IT potentials
  - Adaptation of the social insurance regulations
  - Performance in the online operation
  - Availability of the system
  - Training concept
  - Escalation strategy
  - Call Centre Processes
  - Telecommunication Provider

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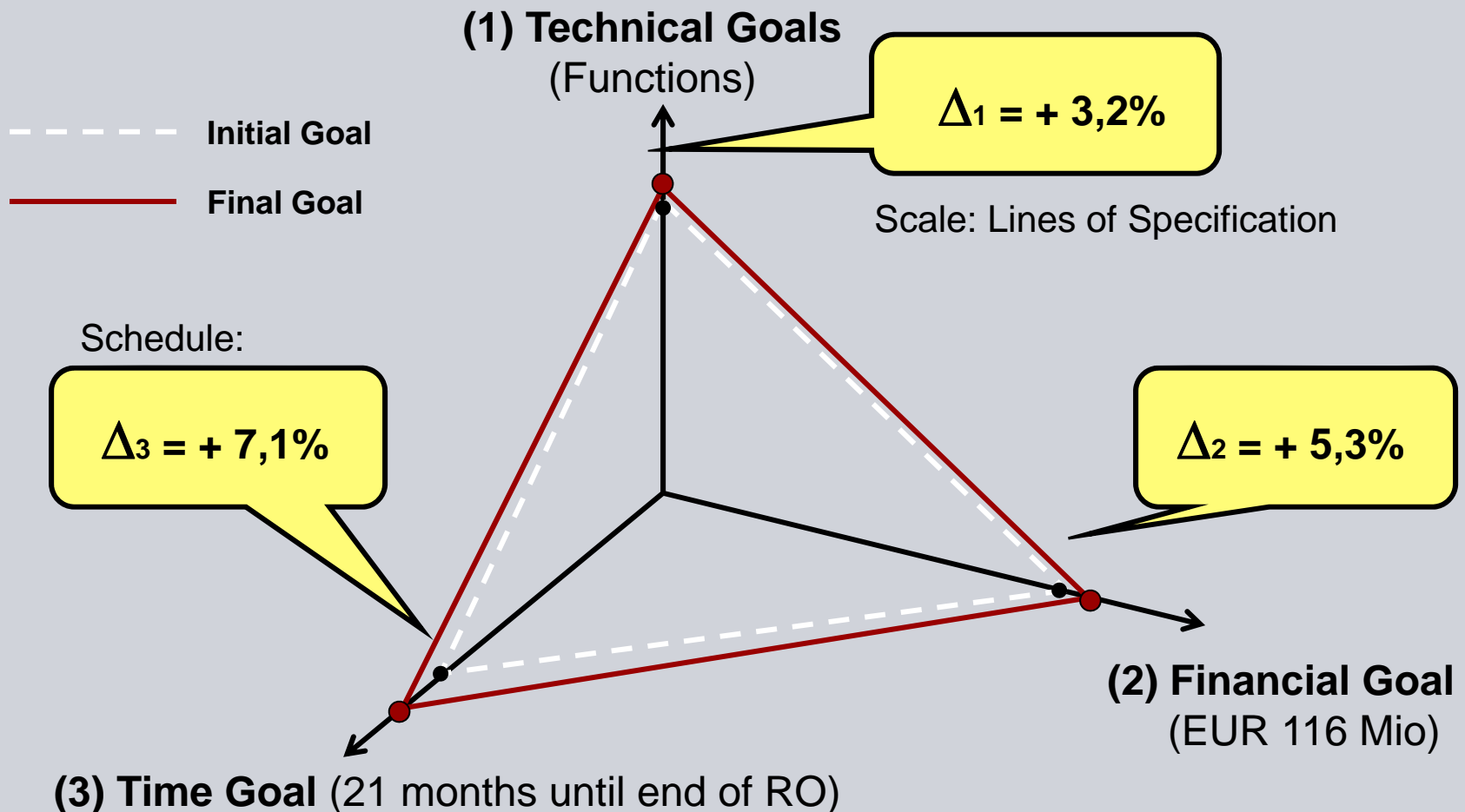
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Extended e-card Usage

- e-Social Security
  Replacement of all paper based health care certificates

- e-Health
  Key card for secure handling of medical transactions
  (basic token for eHealth Telematics)
  - Austrian electronic health record (ELGA)
  - e-medication

- e-government
  Signature and Encryption Card for all fields of application
  with corresponding requirements

We deliver what we promise.