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EUROPEAN HEALTH TELEMATICS ASSOCIATION

Status and Perspectives for the Introduction of Health Cards in European Member States

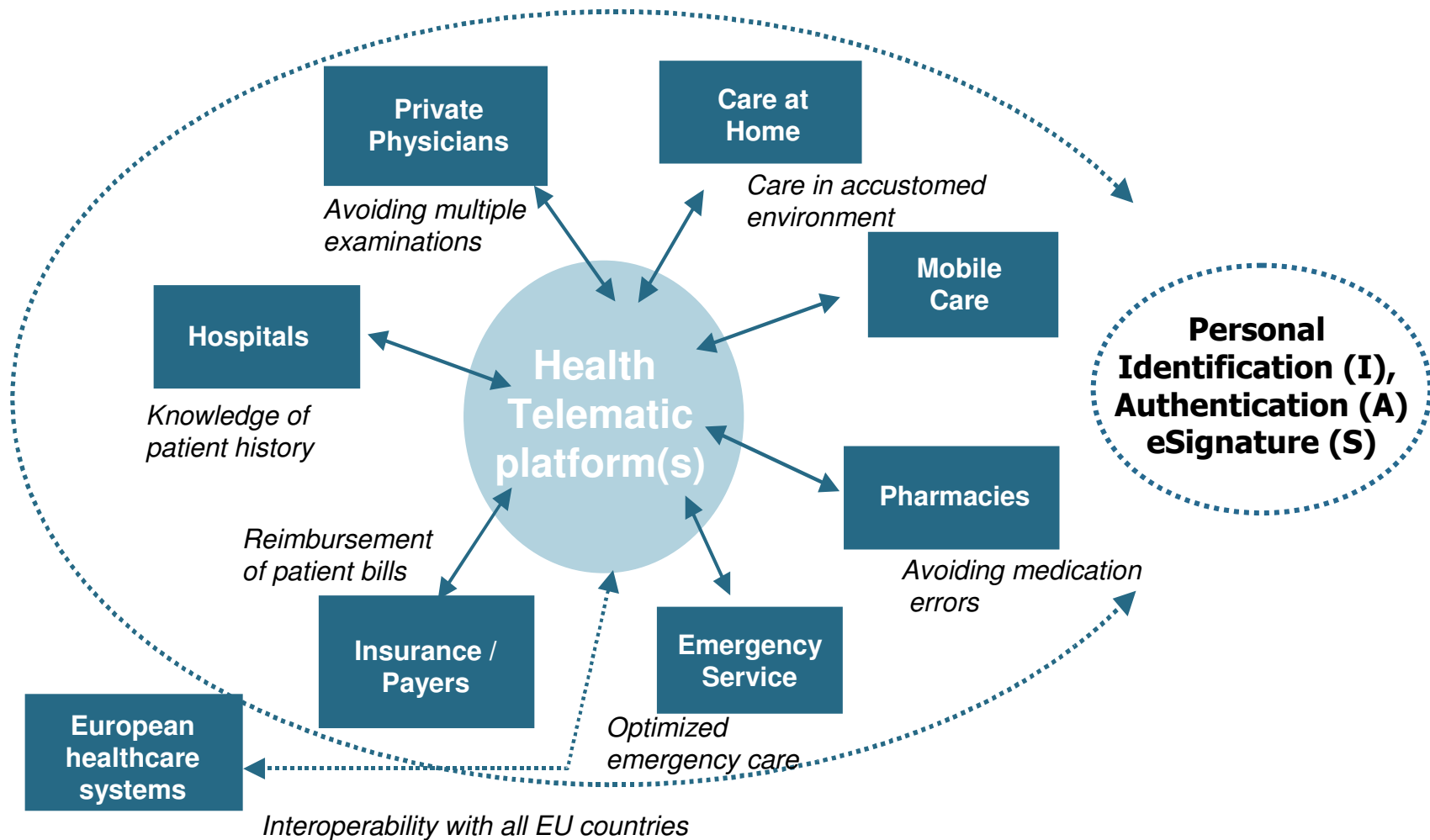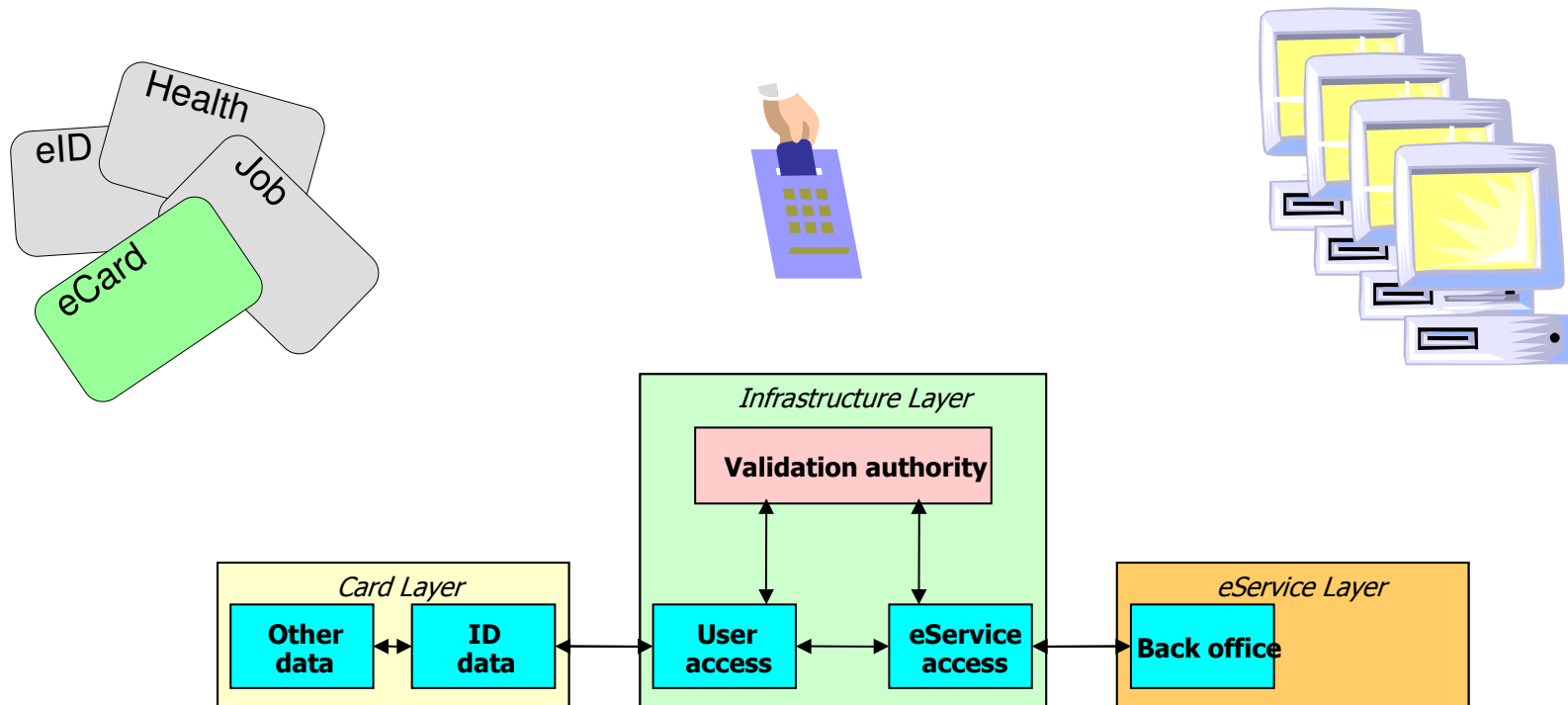## An Introduction

by Marc Lange

# eHealth Requirements: IAS

IAS (on patient/professional cards)

➤ *e*Identification

➤ *e*Authentication

- For secure access control and privacy protection

➤ *e*Signature

- For transmitting/updating data when the professional responsibility is engaged

➤ In the context of several eHealth services:

- EHR
- ePrescription, second opinion
- Access to sensitive administrative data …

Interoperability of IAS
for a generic function

eID

Health

Job

eCard

Infrastructure Layer

Validation authority

Card Layer

| Other data | ID data |

User access

eService access

eService Layer

Back office

From CEN/ISSS CWA eAuth May 2005

Interoperability of IAS systems better than of cards

From CEN/ISSS
CWA eAuth
May 2005

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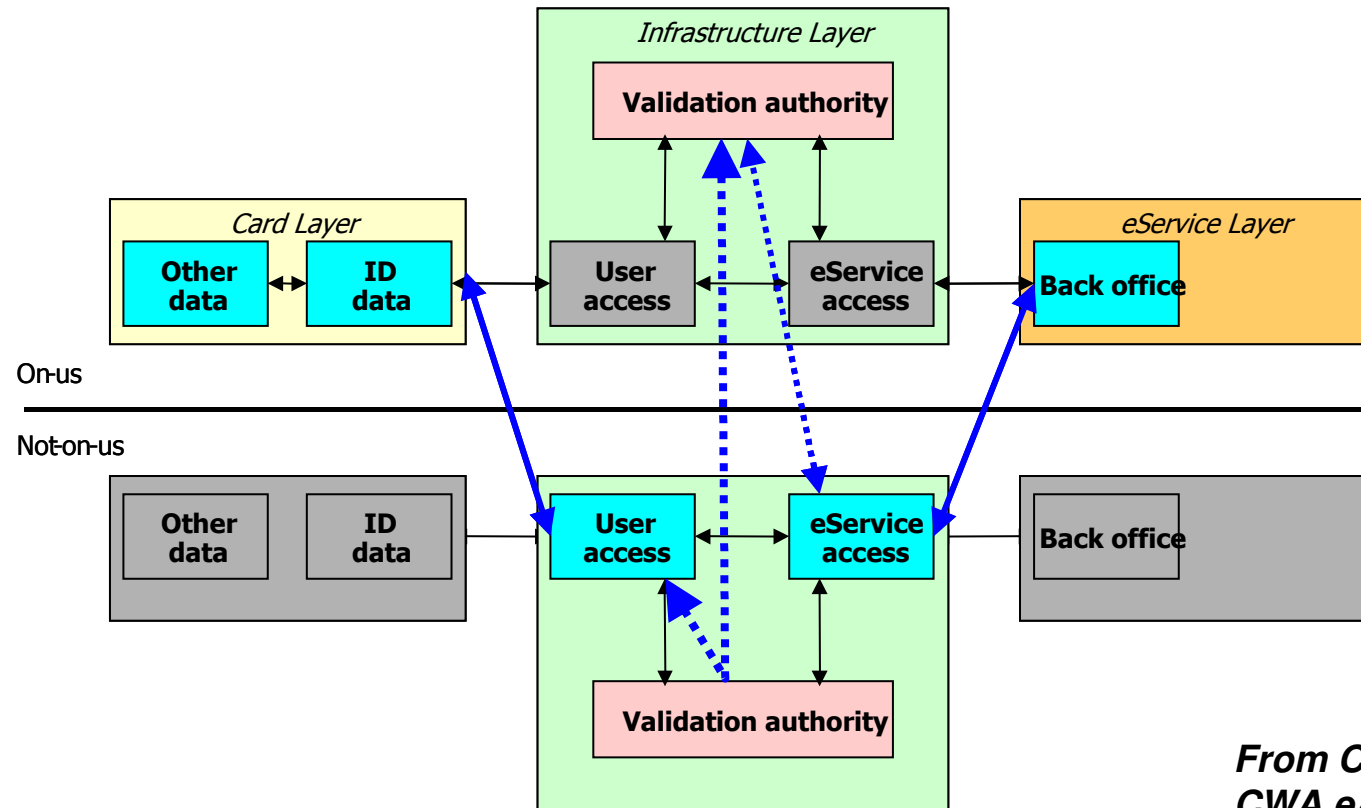
Smart card deployment for HISS/eID cards

➤ 17 countries out of 29 (EEA) are deploying or have at least politically agreed upon deployment plans
- **BE, DE, EE, ES, FR, IT, AU, SI, SE, FI (10)**
- **CZ, GR, IE, HU, NL, PO, IC (7)**

➤ 4 other countries are discussing deployment plan
- **PT, UK, SK, CH**

➤ 6 countries have no plans at all
- **DK, LV, LT, LU, MA, NO**

➤ 2 countries are still to provide information
- CY, LI,

State of affairs in deploying EHIC

➤ By 2006, **EHIC** will be deployed in **29** countries (EEA)

➤ **16 000 000** EHIC have been distributed by the end of 2004, in **14** countries

➤ The Top 3 issuers are
  - Czech Republic: 4 000 000 (all their citizens)
  - Germany: 3 500 000
  - Sweden: 1 600 000

➤ One can expect
  - **50 000 000** cards issued in **19** countries By summer 2005
  - more than **100 000 000** cards by summer 2006

State of affairs in deploying EHIC

➤ Second step under discussion: **eEHIC**

  • e.g. **An insurance function with/without an health one ?**

"The introduction of the European health insurance card will […] also speed up the development of **common approaches** for electronic health records, medical emergency data and electronic patient identifiers."

Karin Jöns, MEP - 1/12/2004

➡ **IAS** and **cross-border interoperability** of smart cards are now on the political agenda

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Why Cross-border interoperability?

➤ *Nobody can be prevented to travel within the EU because he/she needs or may need health care during his/her temporary stay*

- Cross-border **accessibility** to health care

  ➔ **Interoperability for administrative data**

➤ *… or because local health practitioners needs or may need to access "emergency" data or EHR during any stay abroad*

- Cross-border **patient safety** and **quality** of care

  ➔ **Interoperability for medical data and IAS for health professionals accessing them**

Why Cross-border ...

➤ *Cross-border cooperation should be politically encouraged and administratively supported*

- For **sharing capacity and resources** in case of shortage or for avoiding Euregio duplication
- For encouraging **professional mobility**

  ➡ **Interoperability of**
  - **administrative data**
  - **medical data**
  - **IAS for health professionals**
    (including health professional cards)

How:
harmonisation or coordination?

➤ 1 single card across Europe?

- • Full standardisation
- • Powerful investment and deployment plans

or

➤ Different and interoperable cards and infrastructures?

- • Operational interoperability
- • Semantic interoperability
- • Standardisation of interfaces
- • Migration plans at variable pace

➤ **A common objective and a common legal basis in a diversity of legal and technical environments**

The financial issue

► Who benefits from cross-border mobility/interoperability

- Policies (EU/national/regional level)
- Citizens
- Health professionals
- Sickness funds

► What kind of benefits

- Time & resources saving, simplification, continuity of care …

► In a win-win approach,
those benefiting from cross-border interoperability
should fund it

- As a tax payer or as a user of the service?

More information?

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Annexes: Card IOP - Pre-analysis

➤ Seeking for technical orientations on:

- On-card & on-line data
- Card/reader interoperability
- Interoperability of communication infrastructure
- Cross-border access to on-card & on-line personal data

Data interoperability

► On-card identification data

- See EHIC dataset
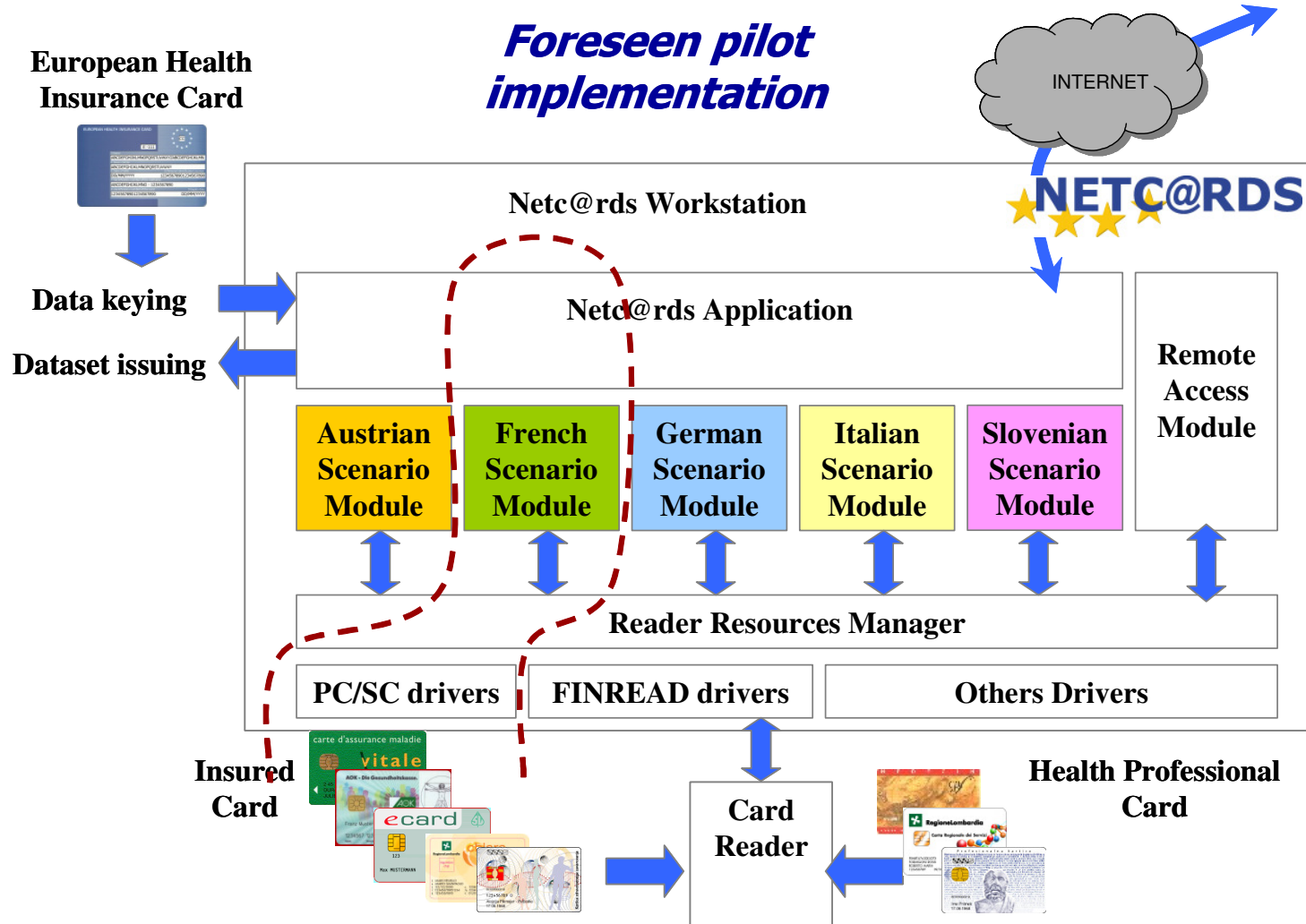- Standardisation work in process - ISO/IEC 21549-5

► Other on-card data/services

- Their interoperability is studied by
    - Netc@rds, for what concerns entitlement data
    - ISO/IEC 21549-3, for what concerns a basic health dataset
    - CWA eAuth. and subsequent standardisation work at
        - TC 224 WG 15
        - ISO/IEC JTC1 SC 17 TF 9
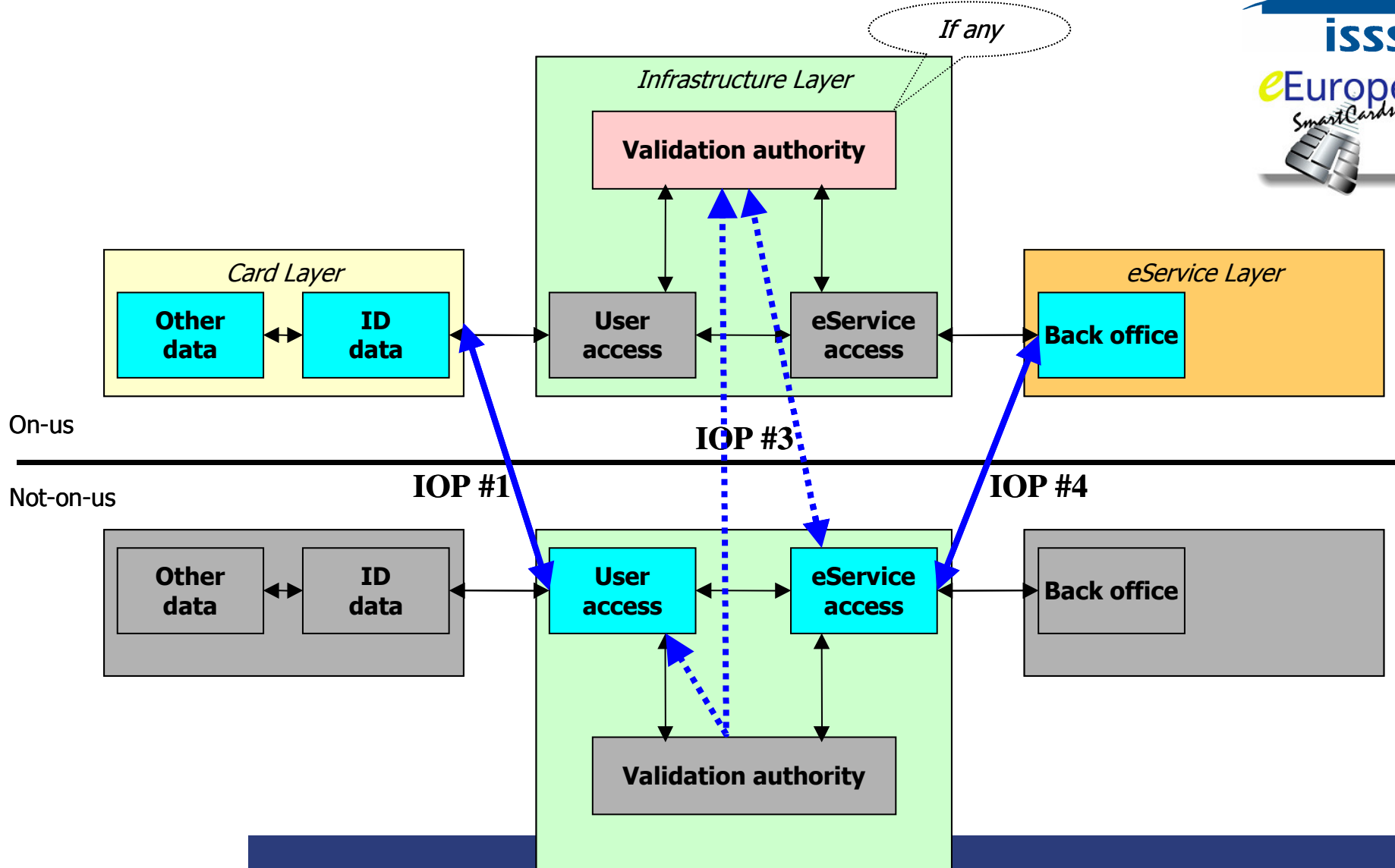   for what concerns eAuthentication

Card/reader interoperability

➤ Solutions already exist for solving generic interoperability (APDU …) between cards and readers

- This is mainly an industrial and financial issue

➤ Application-specific interoperability in support of the mobility of the patient/citizen is studied by projects such as Netc@rds, eEPOCH and Meditrav …

Card/reader interoperability ...

Foreseen pilot implementation

European Health Insurance Card

INTERNET

NETC@RDS

Netc@rds Workstation

Data keying

Netc@rds Application

Dataset issuing

Austrian Scenario Module	French Scenario Module	German Scenario Module	Italian Scenario Module	Slovenian Scenario Module	Remote Access Module

Reader Resources Manager

PC/SC drivers	FINREAD drivers	Others Drivers

Insured Card

Card Reader

Health Professional Card

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IOP of infrastructure

Cross-border access to personal data

➤ Security measures for restricting access to some data may be

- A PIN code under the sole control of the cardholder
- The mutual recognition of the patient and health professional cards
- A strong authentication (PKI-based) mechanism

➤ Interoperability agreements are necessary for managing security gaps

- Some data may be of restricted access in some MS while of open access in other MS
- Access restrictions may be subject to different level of security