Electronic Fare Management,

Europe, and

Interoperability

A Plea

Prague , February 21, 2008

Klaus PHILIPP

T.C.L. GmbH

Unternehmens-
beratung für

Transport,

Communikation &

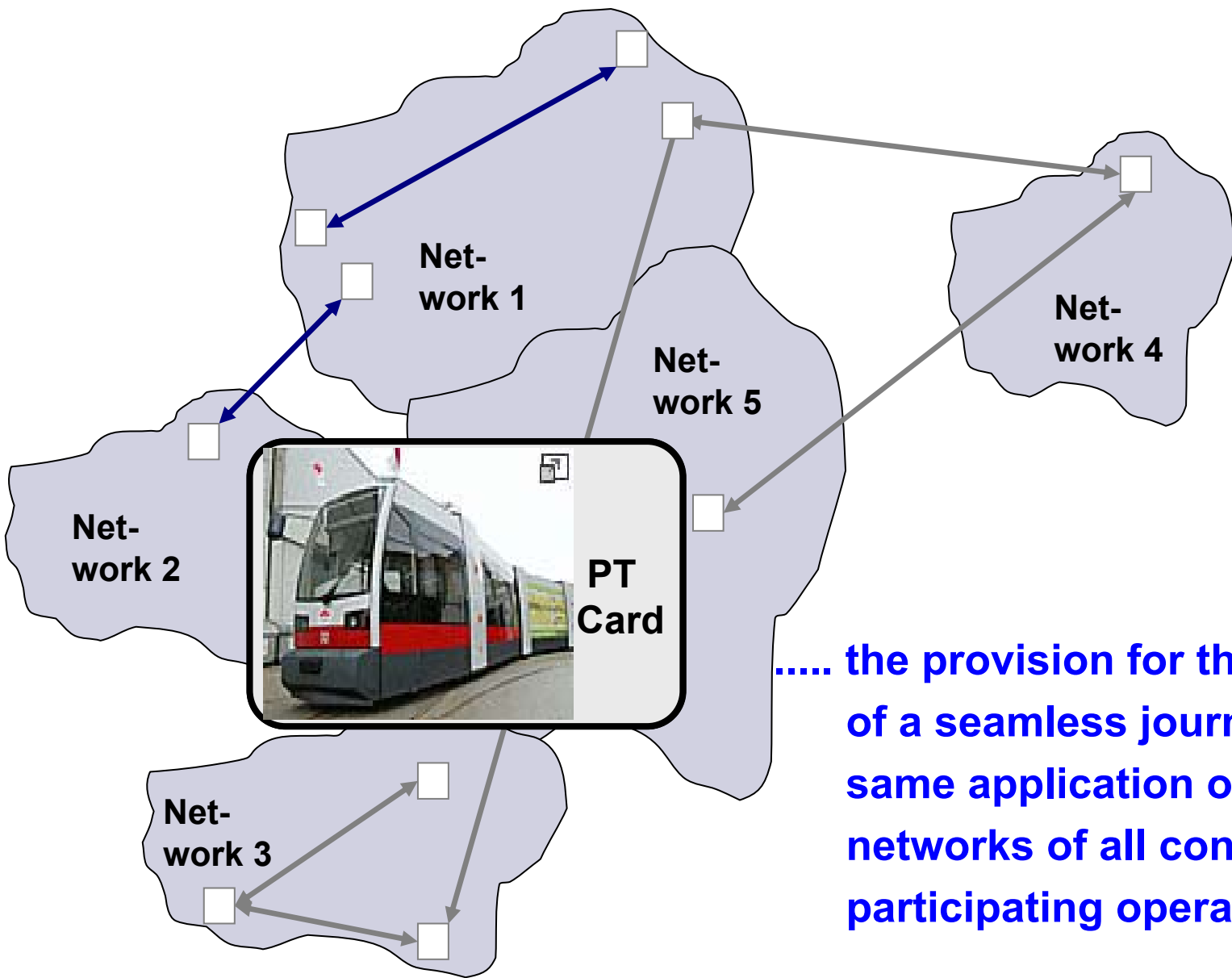**L**ogistik , Vorsterstr. 6, D-47669 Wachtendonk, +49-2836-8209

EC's declared belief in interoperability

**Electronic Fare Management shall be interoperabel**

EUROPE wide

INTEROPERABILITY in Public Transport is.....

Net-work 1

Net-work 2

Net-work 5

Net-work 4

Net-work 3

PT Card

..... the provision for the passenger of a seamless journey using the same application on the networks of all contractually participating operators.

Interoperability – what does it mean ?
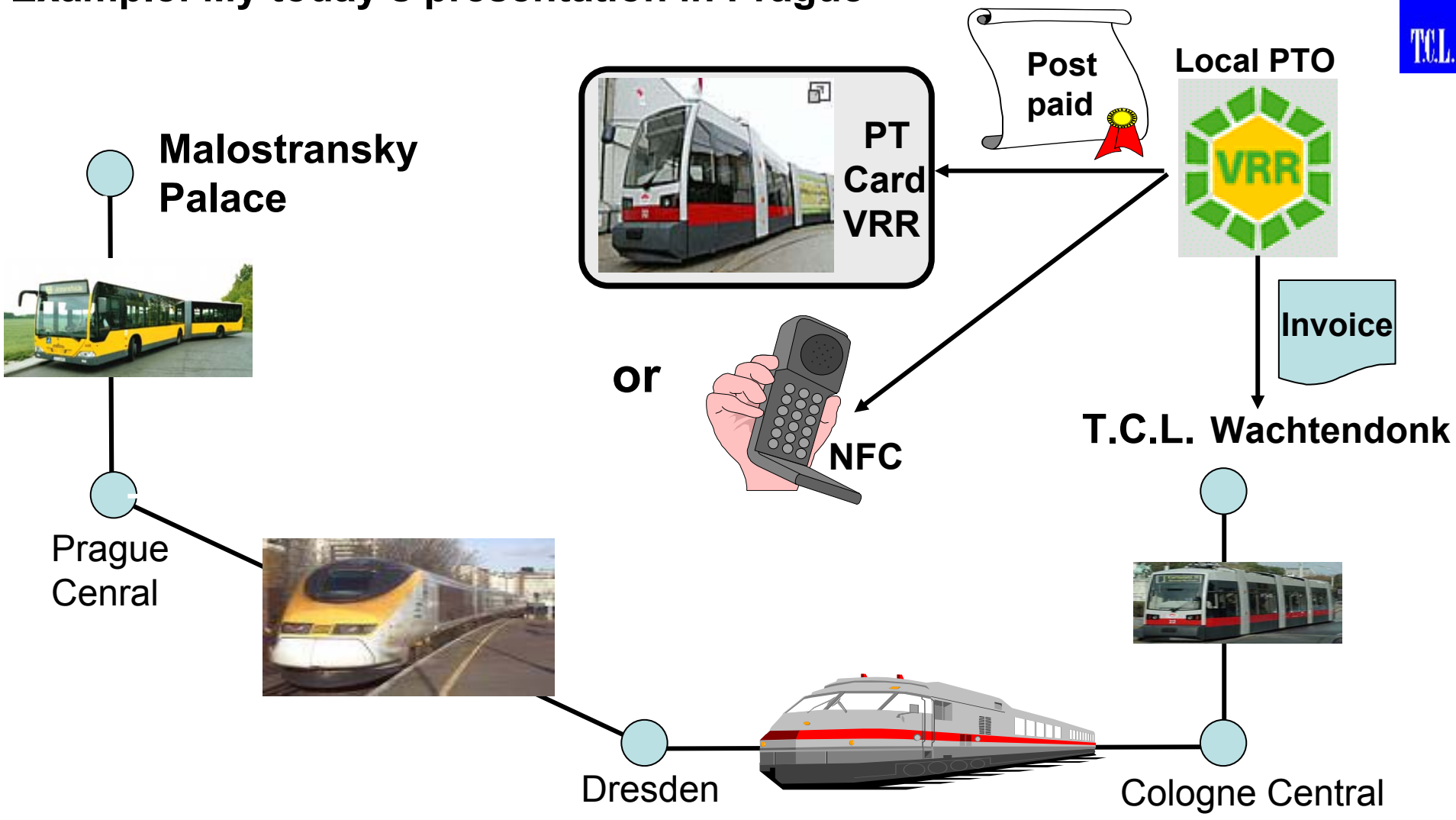
**User Media
with one
application**
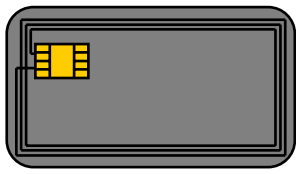
Wide range

Transactionclearing, Hotlisting and Securitymanagement

Support of all payment modes (post-/pre-paid account, token, cash)

Unique Security Architecture (End-to-End-Security)

Common Rules & Regulations

No manipulation of existing regional tariff systems

European Interoperability in PT .....live

Example: My today's presentation in Prague

Malostransky Palace

Prague Cenral

PT Card VRR

Post paid

Local PTO

VRR

or

NFC

Invoice

T.C.L. Wachtendonk

Dresden

Cologne Central

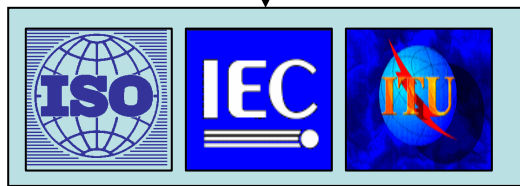# Interoperability in IFM needs Standards and Commitments

INTEROPERABILITY
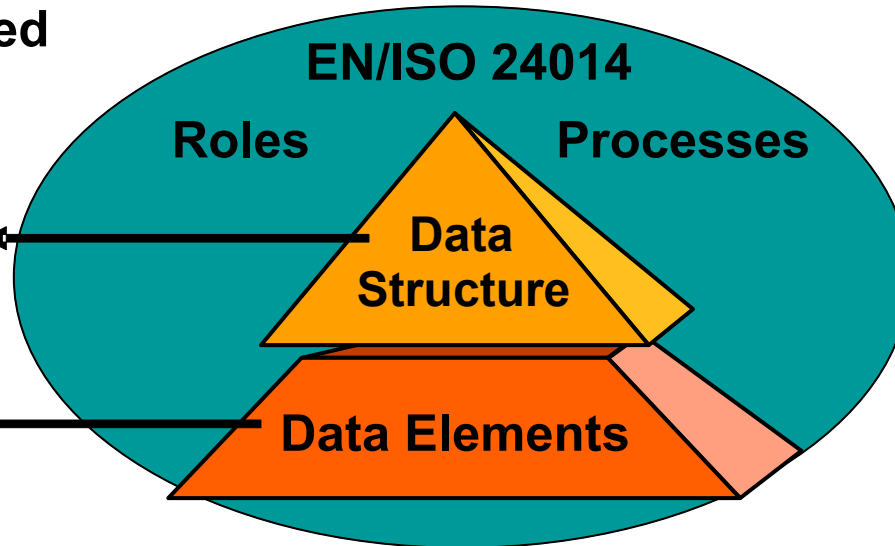
TECHNICAL — ORGANISATIONAL — CONTRACTUAL

Europe wide **?**

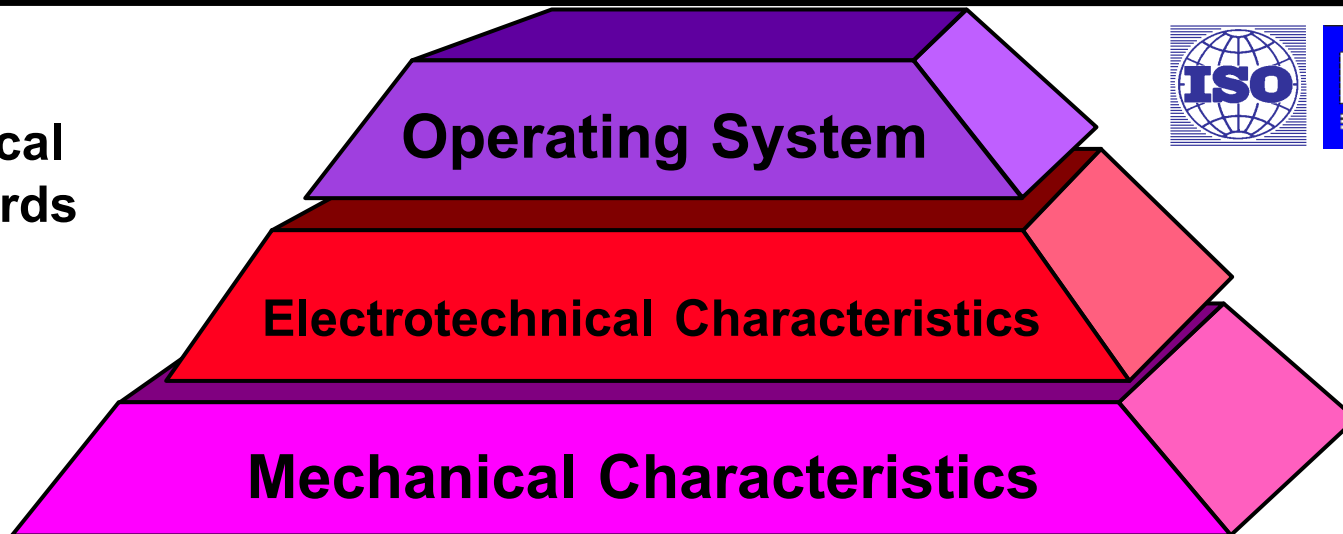# The technical standards of the user media are available

Application related Standards

EN/ISO 24014
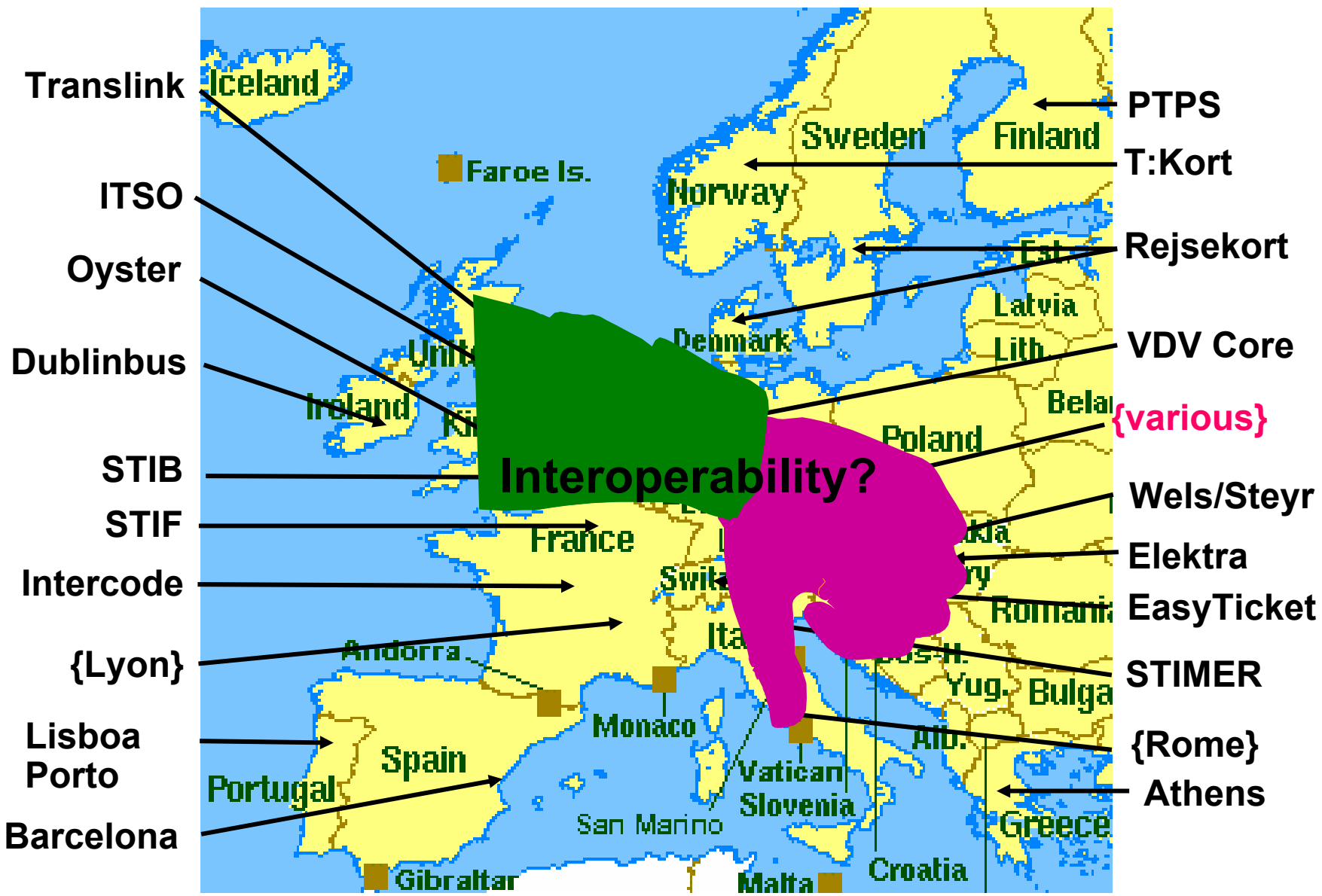
Roles   Processes

EN15320 ← Data Structure

EN1545 ← Data Elements

Pure Technical Standards

Operating System

Electrotechnical Characteristics

Mechanical Characteristics

ISO/IEC 7810, 7816, 14443, 15693, 10373, 18092 (NFC)

.....but what does Europe make out of it?

Translink · **ITSO** · **Oyster** · **Dublinbus** · **STIB** · **STIF** · **Intercode** · **{Lyon}** · **Lisboa Porto** · **Barcelona**

Interoperability?

PTPS · **T:Kort** · **Rejsekort** · **VDV Core** · **{various}** · **Wels/Steyr** · **Elektra** · **EasyTicket** · **STIMER** · **{Rome}** · **Athens**

IFM in Great Britain (ITSO Standard)

Systems on basis of the standard

Situation as of 01.04.2008:

All new „concession passes" (cp)
are issued on ITSO Cards.

At present the issue of ca. 3,6 Mio
ITSO Cards in various Counties and
Cities is planned until end 2008 – mainly
for cp but also for other products.

BUT : even though the national standard
exists there is no full interoperability
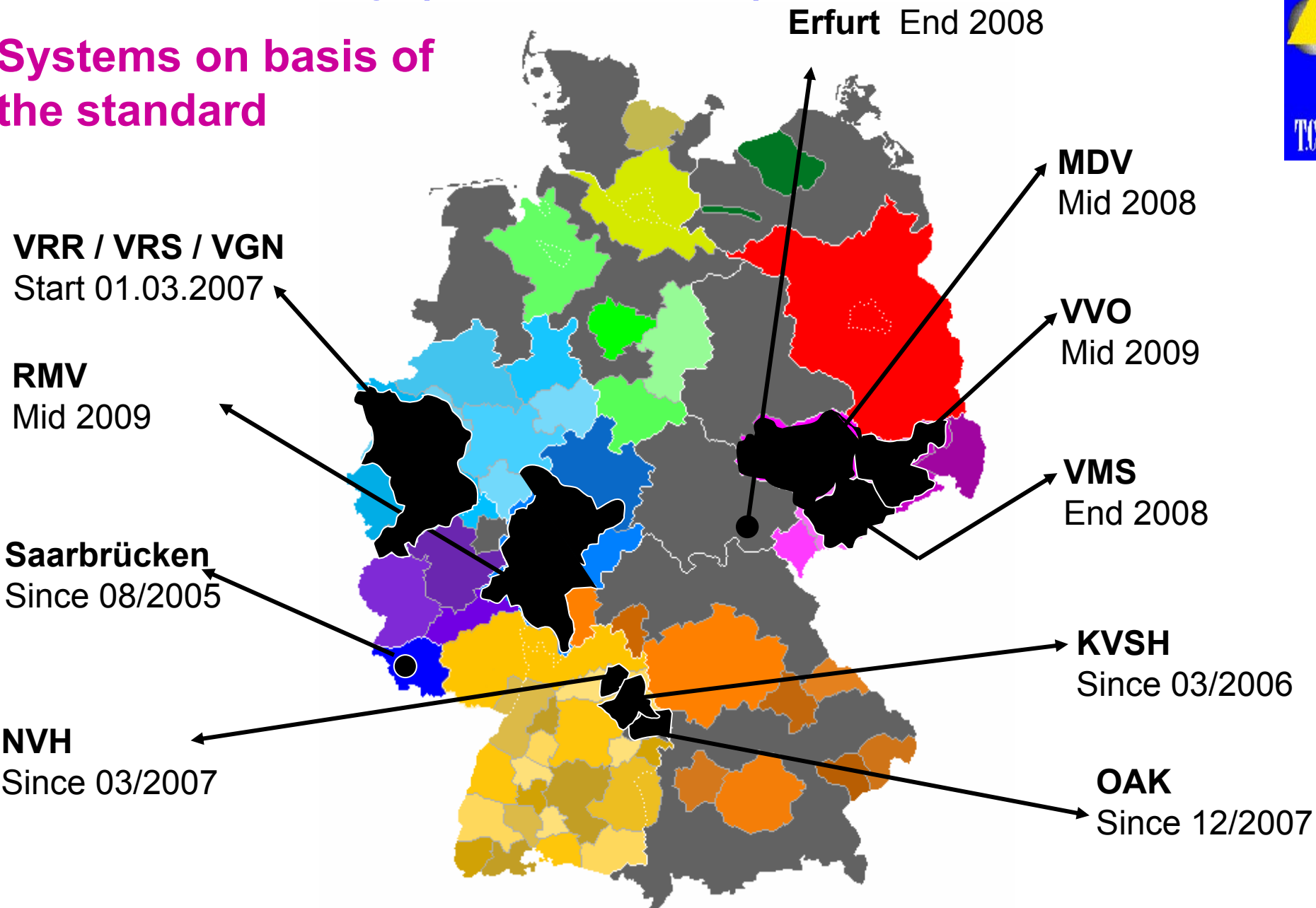between England and Scotland.

Migration of Oyster (TfL) until 2010

1,2 Mio

IFM in Germany (KA Standard)

Systems on basis of the standard

Erfurt End 2008

MDV Mid 2008

VRR / VRS / VGN Start 01.03.2007

VVO Mid 2009

RMV Mid 2009

VMS End 2008

Saarbrücken Since 08/2005
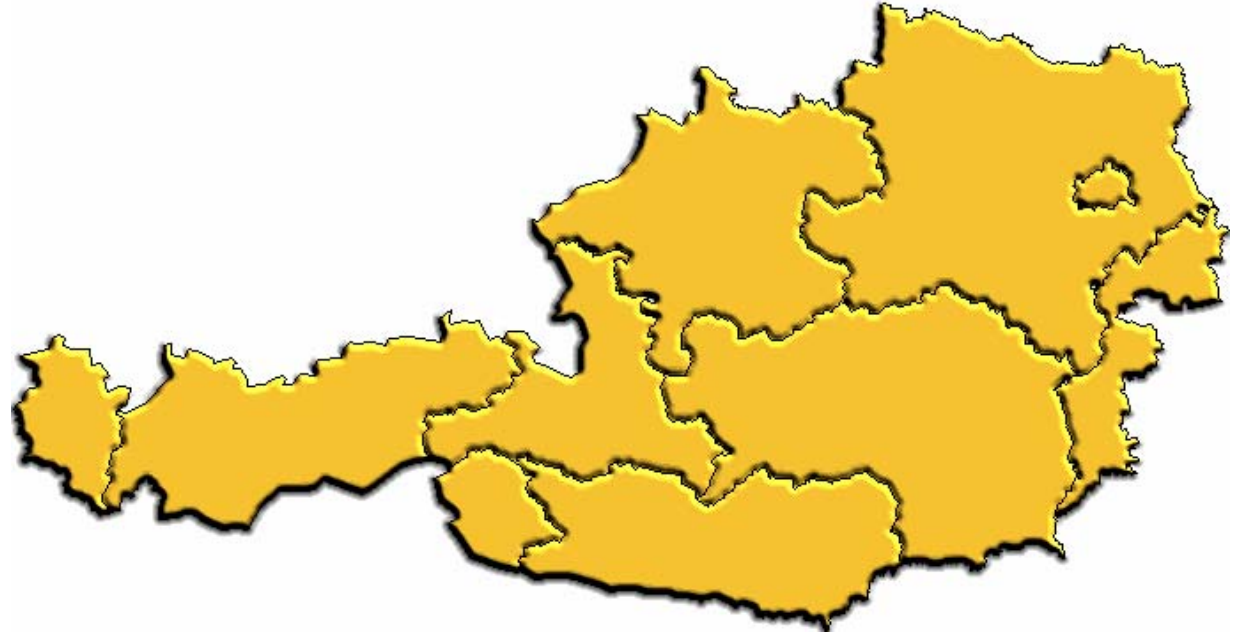
KVSH Since 03/2006

NVH Since 03/2007

OAK Since 12/2007

T.C.L.

IFM in Austria (Transmobil Standard)

Future systems on basis of the standard

At present the national standard for an IFM is going to be elaborated in a research project

IFM in the Netherlands (Translink System)

The System builds the standard

CiCo countrywide in all PT vehicles

Stored travel rights and passes

Countrywide interoperability is achieved by THE system supplier (East West Consortium)

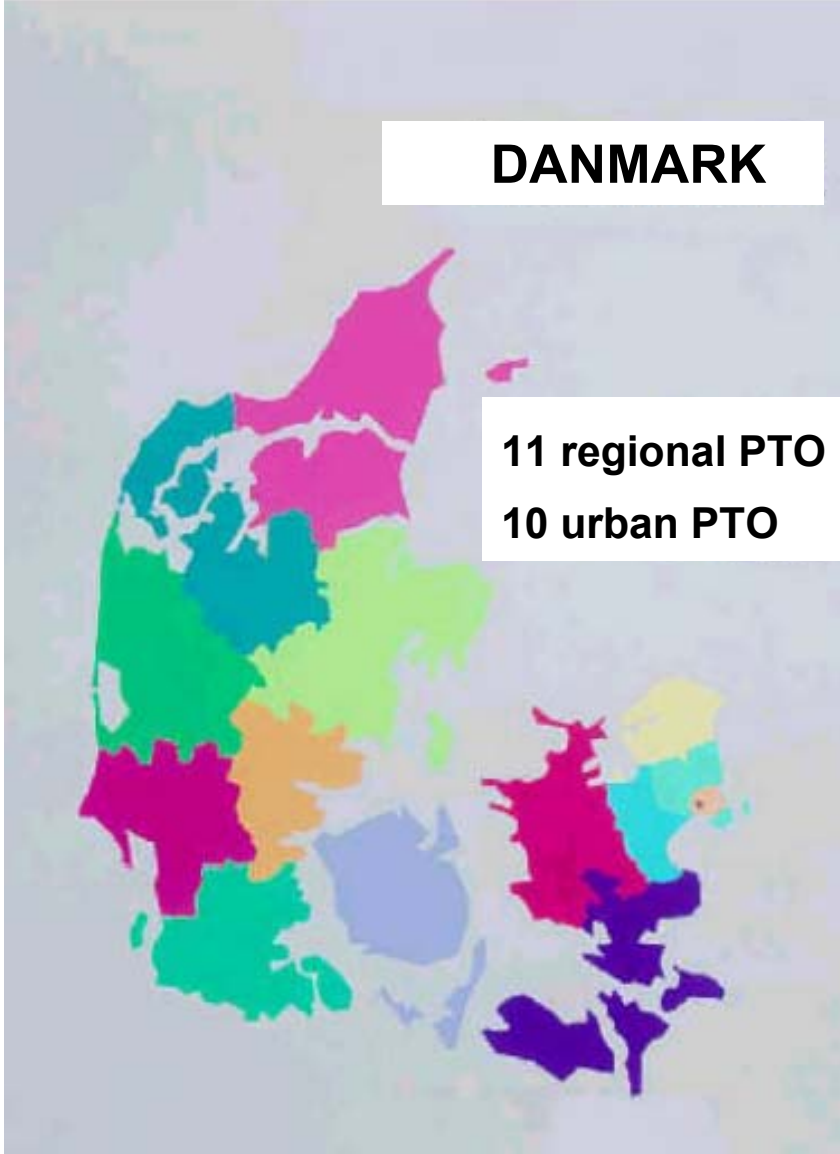**Step-by-step implementation 2008-2016**

IFM in Danmark (Rejsekort System)
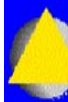
The System builds the standard

CiCo countrywide in all PT vehicles

Stored Travel Rights and Post-paid Account

Countrywide interoperability is achieved by THE system supplier (East West Consortium)

Step-by-step implementation 2008-2016

DANMARK

11 regional PTO

10 urban PTO

IFM in Italy

Several local IFM-Systems

without being interoperable
> Rome
> Florence
> Naples
> Brescia
> Perugia
> Terni

Emilia-Romagna:

9 provinces with 11 big PTOs create 1 tariff system and 1 IFM-System (STIMER) as a regional standard and thus guarantee regional interoperability

STIMER

Migration from National to European Interoperability by applying existing European Standards

CH:	**EasyTicket**
D:	**VDV KA**
DK:	**Rejsekort**
F:	*Intercode, Interbob*
GB:	**ITSO**
N:	**T:Kort**
NL:	**Translink**

EN24014 (Architecture)

EN15320 (Application)

EN1545 (Data elements)
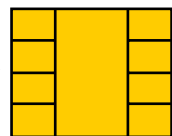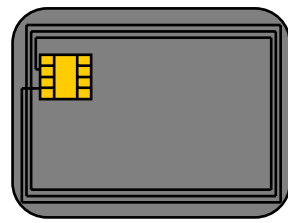
NFC

for EUROPEWIDE use

Résumé:

INTEROPERABILITY

will no longer fail

because of missing

TECHNICAL

STANDARDS

Proprietary Systems in IFM will not have any future

Interoperability in IFM needs Standards and Commitments

Create a European Platform for Integration and Coordination in Electronic Fare Management

Translink
ITSO
Oyster
Dublinbus
STIB
STIF
Intercode
{Lyon}
Lisboa Porto
Barcelona

IFM Forum (UITP)
IFM Project (EU)

PTPS
T:Kort
Rejsekort
VDV Core
{various}
Wels/Steyr Transmobil
Elektra
EasyTicket
STIMER
{Rome}
Athens
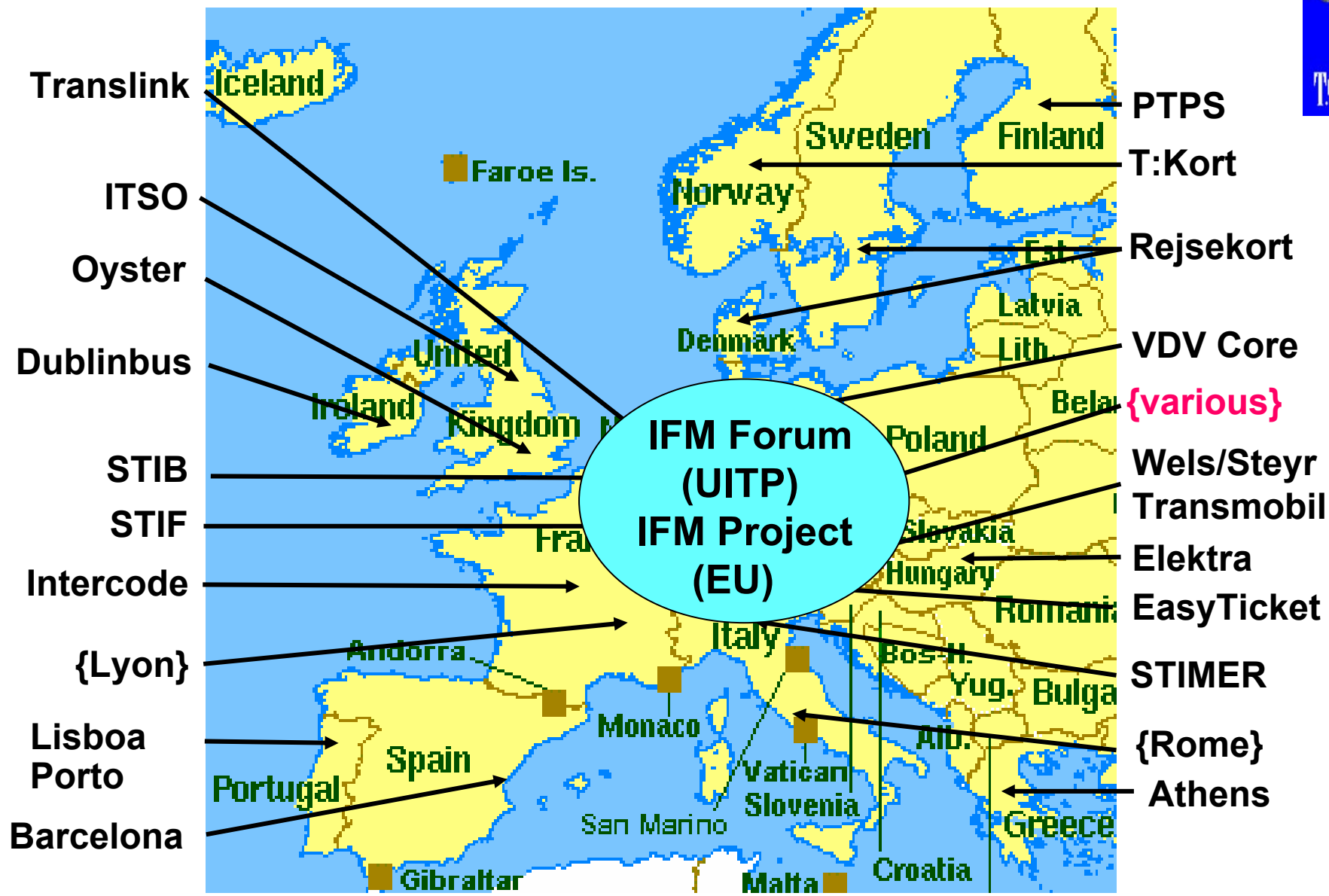
Besser, Sie wählen den Standard.

It's better you use the standard

Thank you very much
for your kind attention

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