

## Door-to-Door Seamless Mobility & Public Transportation Management in the CZ



8. Czech Transport Forum  
Autoklub, Praha  
25 April 2012

ITS network workshop  
The City of Copenhagen  
26 April 2012

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- Understanding Door-to-Door Mobility
- Future visions
- “IDOS”- Czech & Slovak MMJP  
the winner of the 1<sup>st</sup> Smart Mobility Challenge

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Tomas Chlebnican, CHAPS



# Czech Republic



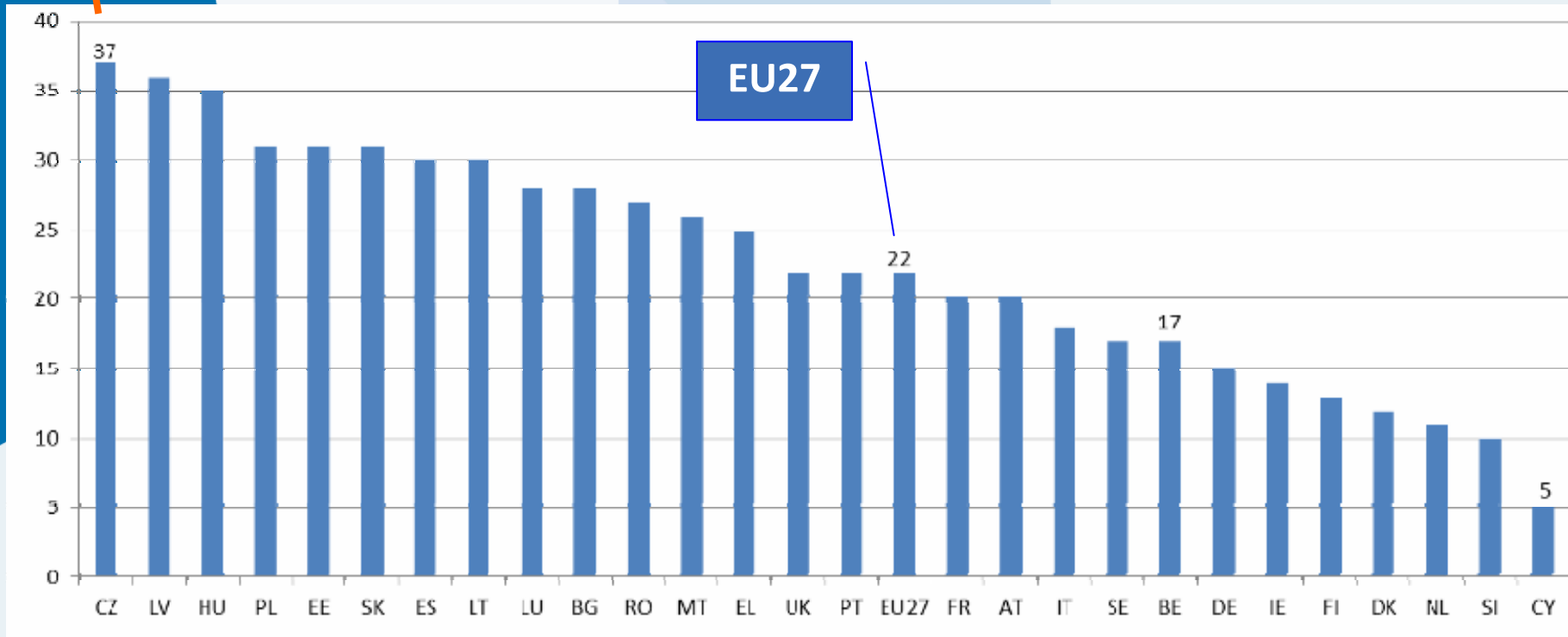
Common history  
& warm  
relations to  
Slovakia





CZ

## Users of public transport



CZ - the largest proportion of users of public transport throughout the EU > **37%** of public transport (car 36%, other 27% - Eurobarometer 2010)

# Public Transport Tradition over 110 years in the CZ

CZ today



Pilsen  
1899



Prague, 1974

## Where are in PT we today?

- Good preconditions for sustainable development of public transport
- Very dense road and railway network (density of railway network 0.12 km of lines per sq. km > comparable with Belgium and Germany)
- Significant progress in the use of ITS in management and organization of PT
- Legislative framework for stable operation



# Public transport

## ITS projects examples

| Invest. Mil. EUR | Present stage of project | Project Category   | Project / Activity Name  |
|------------------|--------------------------|--|--|
| 125,0            | implemented              | electronic fare management                               | Electronic Fare Management Systems in Czech cities and regions, more than 3Mil. of chip cards in the CZ.   |
| 2                | implemented              | travel information                                       | National information system on public transportation timetables of various tr. modes as a basis for door/to/door seamless mobility services (incl. cross border MMJP for public). – <b>NTIS, IDOS</b>              |
| -                | implemented              | ticket reservations                                      | Cross-border national railway electronic reservation system operated by Czech Railways (ARES) and National bus transport reservation system (AMSBUS) operated by independent private entity. – <b>ARES, AMSBUS</b> |
| 0,8              | implemented              | passenger information & public transportation management | Central control of integrated transport system of South-Moravian region. - <b>CEDs</b>   |
| 1,6              | planned                  | public transportation management                         | Automatic control of switches of core tramway and trolleybus lines in Plzen .  |
| 1                | project intention        | R&D  | National EFM interoperability standard   |

## Importance of PT legal framework

- The timetables collection and the timetables information are driven by a legal framework
- Ministry of Transport established for public needs  
**National timetable information system (NTIS)**
- efficient model of **PPP partnership** is set up, where costs are covered by advertisement and not by public funding
- Ministry of Transport of the CZ commissioned company CHAPS to operate NTIS
- **IDOS is MMJP based on NTIS** operated by CHAPS

CZ Act No. 111/1994, road transport

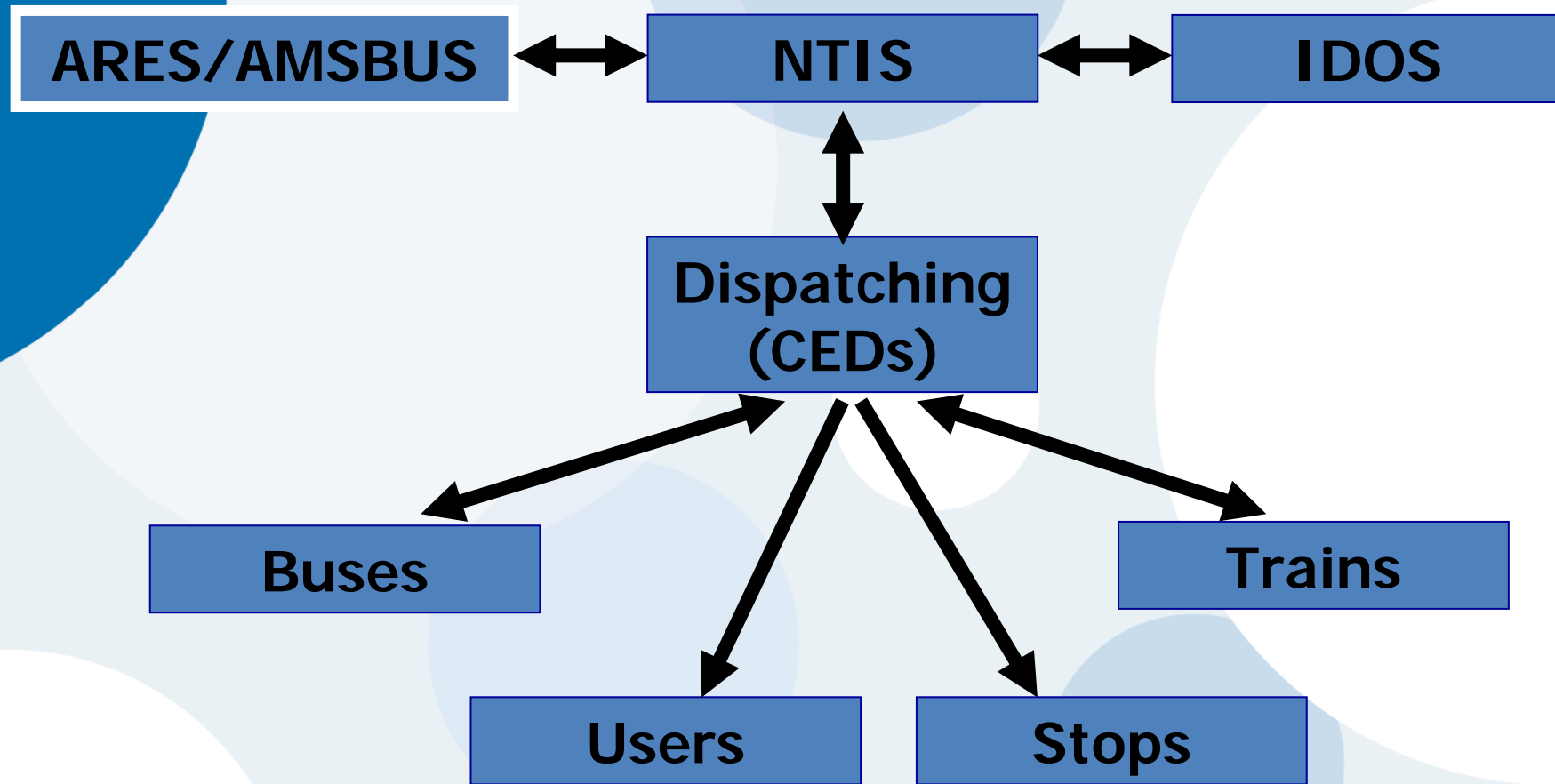
CZ Act No. 266/1994, railways

CZ Act No. 194/2010, public passenger transport services

CZ Decree No. 388/2000, timetables of public line passenger transport

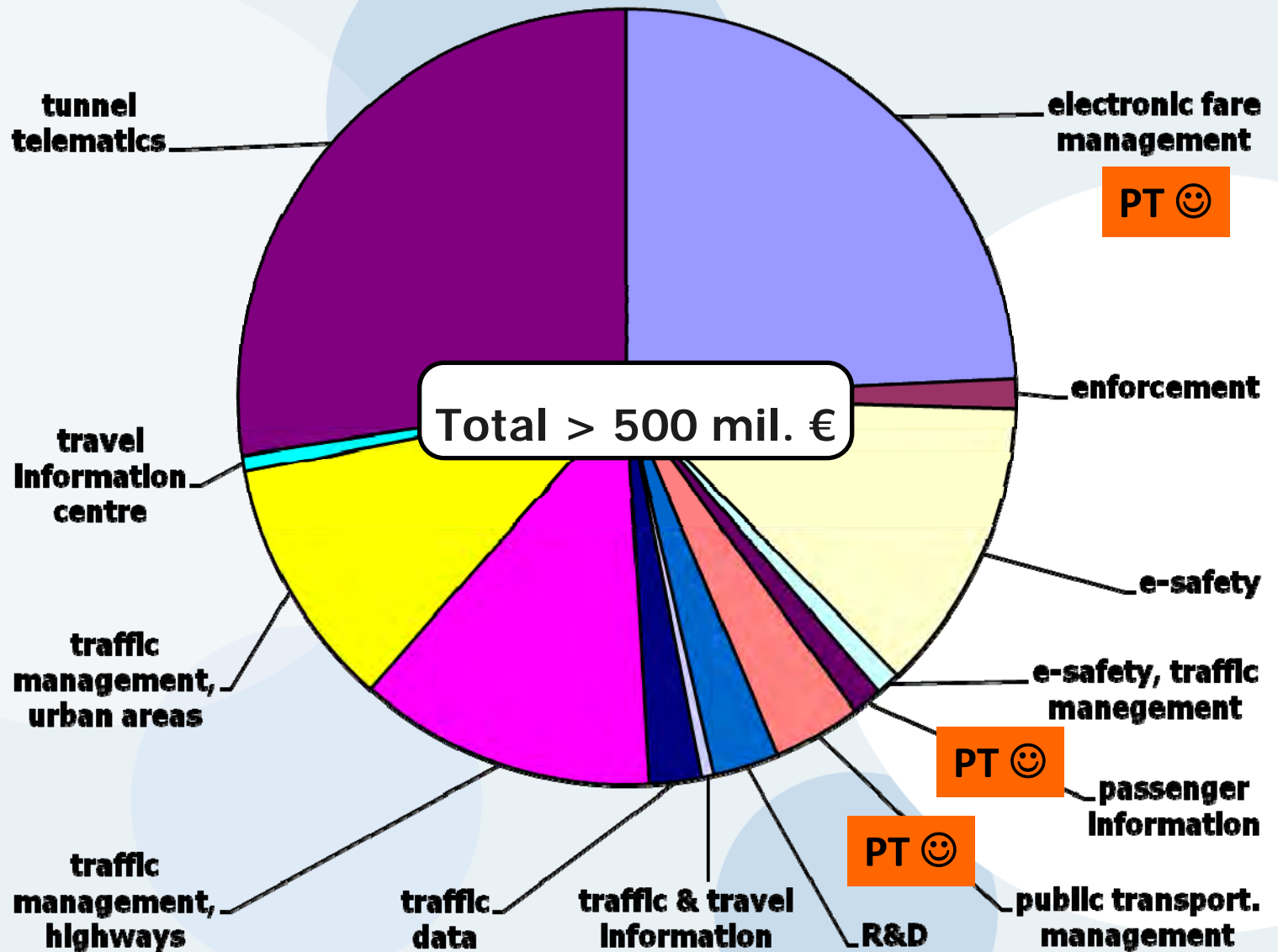


# NTIS system architecture



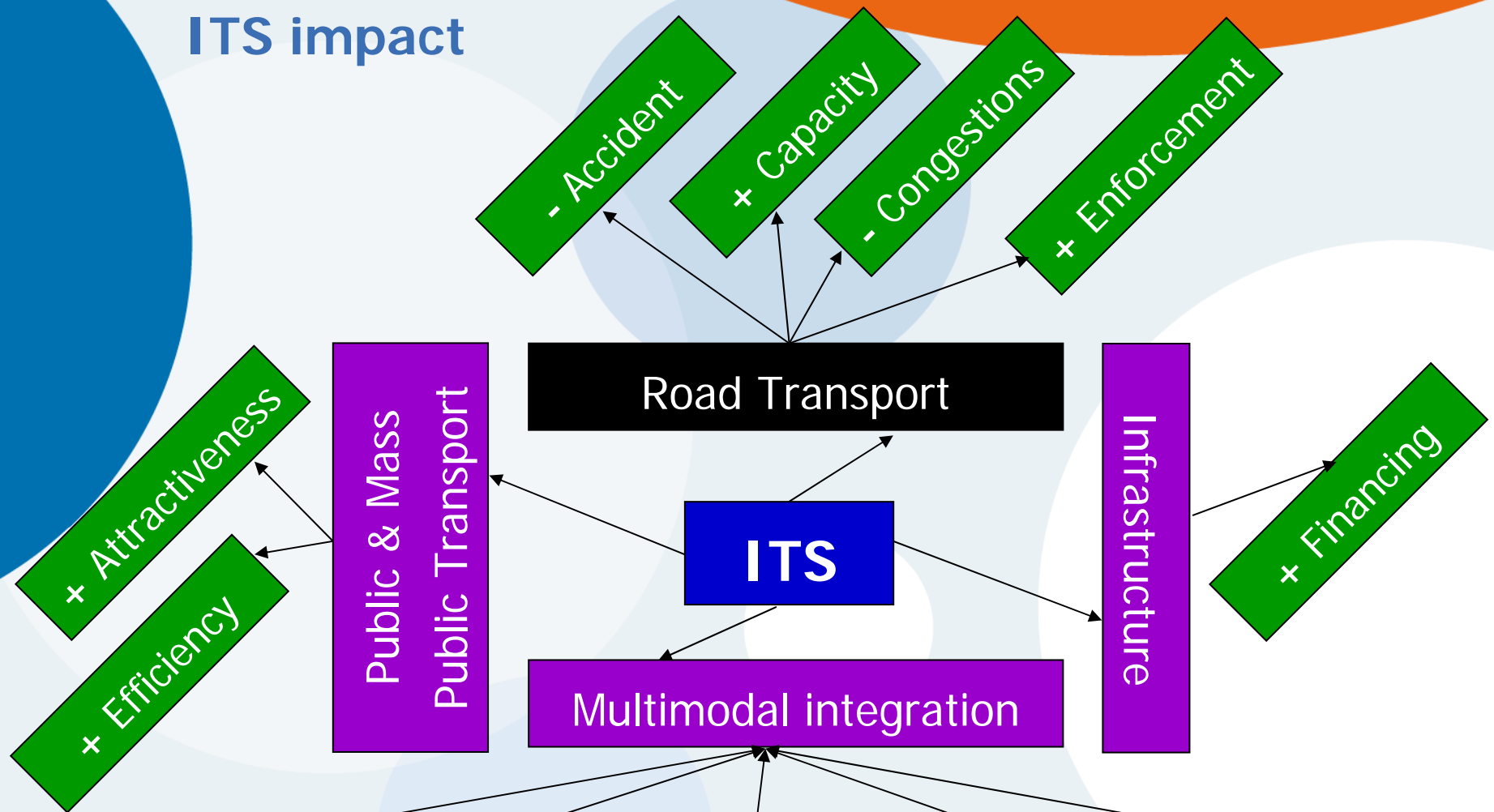
# ITS in the CZ

Czech ITS  
Report 2011  
acc.  
40/2010/EU



ETC extra. Total investment and operational costs,  
10 years = 680 mil. EUR = 22% of revenue

# ITS impact



Safe & secure, effective, economical, sustainable and green transport system

# ITS Potential for gov. & public sector

**On-line + effective + 100% reliable + secure + relatively cheap information, influence and regulation:**

- Traffic management
- Transport regulation
- Electronic payments
- Revenues from users



- Optimal use of parking places
- Municipality services optimization
- More Attractive & Efficient public transport

Multimodal integration

112

C. Logistic

Public mass tr.

Railways

Cars



## ITS Potential for users: travelers, drivers

**On-line + pocket + 100% reliable, on click + quick look information about:**

- Traffic density
- Parking capacity
- Navigation advice
- Seamless ticketing & Tolling
- Time tables



- Departures and arrivals of public transport means
- Power for electro vehicles
- Stands of bicycles

Multimodal integration

Walk

Cycling

Public mass tr.

Railways

Cars

# Door-to-Door Seamless Mobility & Public Transportation Management

- ✓ Journey information & planning
- ✓ Ticket reservations and payments
- ✓ On-line information when travelling
- ✓ Public transportation management
- ✓ & co-ordination across regions and also with other transportation means

+ Attractiveness

+ Efficiency

Public & Mass  
Public Transport

Multimodal integration

Pedestrian

Cycling

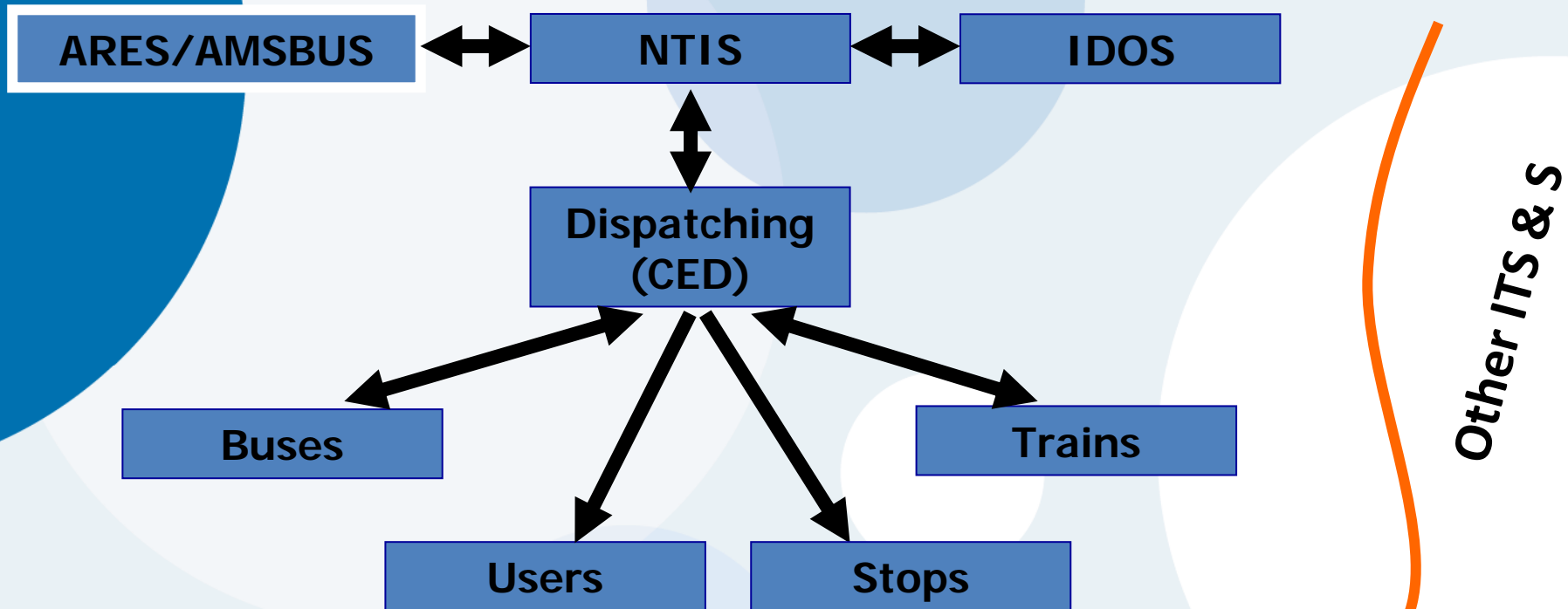
Public & Mass

Rail

P. Vehicle

Safe & secure, effective, economical,  
sustainable and green transport system

# NTIS: core element of D2D Mobility & PTM in the CZ



- ✓ Journey information & planning
- ✓ Ticket reservations and payments
- ✓ On-line information when travelling
- ✓ Public transportation management & co-ordination

## Future D2D & PTM visions

### Co-operation on EU level:

- IDOS as part of **European wide MMJP** system
- **Standardization** of international timetable data exchange and mutual validation
- **EFM** interoperability movements in EU

### Development on national level:

- Support of **multimodal ticket** ideas
- Full integration with **all reservation systems and EFM** at the regional and national level
- Legal and technical implementation of **real time data on positions of PT vehicles into the NTIS**
- Dispatching centre (**CEs**) data exchange interoperability



# Future D2D & PTM visions

The screenshot shows the website [www.telematika.cz/itsf/index.php](http://www.telematika.cz/itsf/index.php). The main navigation bar includes links for conferences, publications, photogallery, download, about us, contacts, and a Czech language option. A banner at the top features images of a hot air balloon, an airplane, a truck, and a train. A sidebar on the left contains links for news, download documents, venue, and photogallery, along with a 'Vote for me Smart Mobility Challenge' logo. The main content area displays a news article titled 'Czech ITS Forum on Door-to-Door Seamless Mobility & Public Transportation Management' dated 1. 12. 2011, held at the Prague House in Brussels, Belgium. A photo shows a speaker at a podium in front of an audience.

The screenshot shows a PDF document titled 'Forum Conclusions' from the Czech ITS Forum. The document is dated 1st December 2011 and was held at The Prague house, Avenue Palmerston 16, Brussels. It features logos for the Czech Republic Ministry of Transport, the Státní zastoupení ČR při Evropské unii (Permanent Representation of the Czech Republic to the EU), Prague House, and ITSS. The main heading is 'Czech ITS Forum on Door-to-Door Seamless Mobility & Public Transportation Management'. The 'Forum Conclusions' section lists the following point:

1. Application of ITS in public transport has a great potential for all - travelers, transport services operators, organizers and public transport order parties. This is especially true when it comes to delivering on-line, effective, reliable, secure and relatively cheap information, advisory, planning, management, booking and ticketing services.

# IDOS: MMJP based on NTIS

The screenshot displays the European Commission Mobility & Transport website, specifically the Smart Mobility Challenge results page. The page features a navigation menu with 'Smart Mobility Challenge', 'News', 'Vote on journey planner', and 'Ideas for journey planner'. The main content area is titled 'The winners of the 1st Smart Mobility Challenge' and shows a map of Europe with callouts for 'IDOS Planner: CZ' and 'TRENITALIA Gruppo Ferrovie dello Stato Italiane Planner: IT'.

The IDOS Planner: CZ interface is shown on the right, displaying a journey from Včelná to Bráfova. The journey details are as follows:

| Date   | From/Interchange/To                | Arr.  | Dep.  | Note | Connections                     |
|--------|------------------------------------|-------|-------|------|---------------------------------|
| 15.11. | Včelná MHD                         | >     | 13:15 |      | 320030 20                       |
|        | České Budějovice,,aut.nádr. WC MHD | 13:30 | 13:45 | 9    | 350660 28                       |
|        | Jindřichův Hradec,,aut.nádr. MHD   | 14:58 | 15:01 | 20   | Walk takes approximately 2 mins |
|        | Jindřichův Hradec                  | 15:14 | 15:16 |      | R.663 Vajgar R D                |
|        | Brno hl.ú.                         | 18:37 |       |      |                                 |
|        | Hlavní nádraží                     | >     | 18:48 | 100  | 1                               |
|        | Bráfova                            | 19:01 | >     | 100  |                                 |

Overall time 5 hours 46 min., distance 241 km, price Základní 311 Kč / IN50 Základní 203 Kč / IN25 Základní 257 Kč

CSAD JIHOTRANS a.s.; České Budějovice; 387 312 701, 602 785 106 (Bus 320030)  
 ICOM transport a.s.; Jihlava; 567 300 568 (Bus 350660)  
 České dráhy, a.s.; nábreží L.Svobody 1222/12, 110 15 Praha 1; +420 840 112 113 (R.663)  
 Dopravní podnik města Brna, a.s.; Brno; www.idjmk.cz, info: 5 4317 4317 (Tram 1)  
 runs on ♿, runs not 18 XI.

**THANK YOU!**

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