

**JACOBS**<sup>TM</sup> Consultancy

**Truck Parking Information**

**Delivering it at a European level**

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# Background and perspective of the presentation

- Co-ordination of EasyWay FLS ESG group, ITP central issue
- Framework contract for DG MOVE on implementation of ITS action plan and directive
- **This presentation is a personal view based on above**
- **It does not represent an official position**

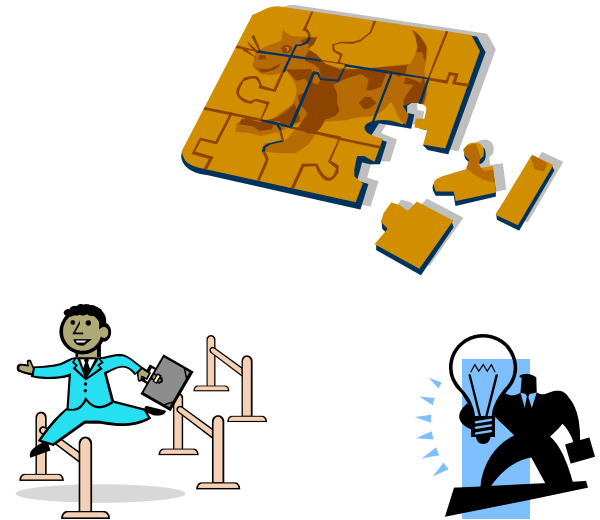


**ITS ACTION PLAN**



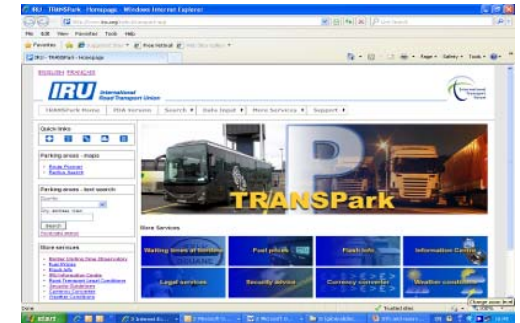
# Starting point and aim of the presentation

- **A European truck parking information service of suitable quality and accessibility is essential to deliver truck companies and drivers information on truck parking security (and quality)**
- Related to priority action of ITS Action Plan and related Directive
- Where are we at the moment ?
- What does it mean, what are the barriers, challenges and requirements for achieving it ?

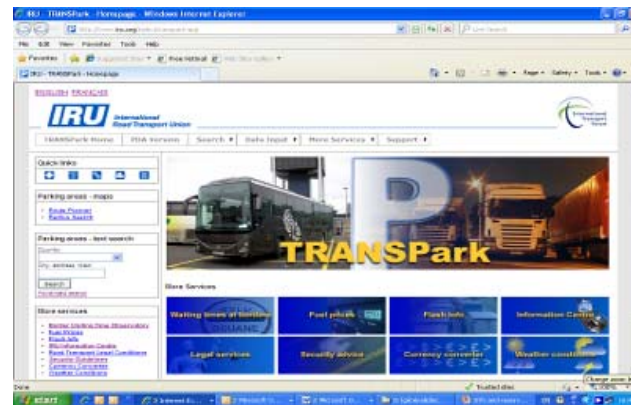


# Presentation structure

- On-line search for detailed information on TPAs
- Dynamic information on truck parking space availability at TPAs
- Deployment, technical and organisational issues
- Some conclusions



## On-line search for detailed information on TPAs :

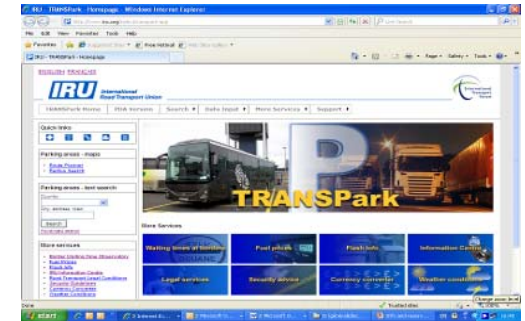


*A key to delivering information on truck parking security levels (and associated quality of the site)*

**State of deployment and key issues**

# Deployment : European, national and regional services

- Paper directories exist, still serve important purpose
- On line EU level : TruckInform, TRANSPark
  - circa 3000 parking sites (each different)
  - TPA features, services (dignity facilities, security...)
  - Feature selection search, radius search, on-route etc



- On-line National, regional services

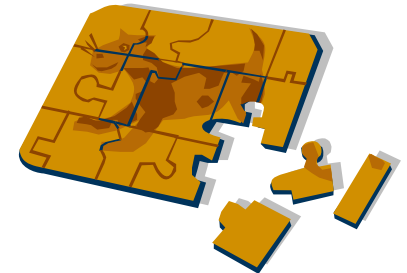


- Scope for
  - delivery through other on-trip media, but trucks not early adopters
  - extension to real-time and booking services



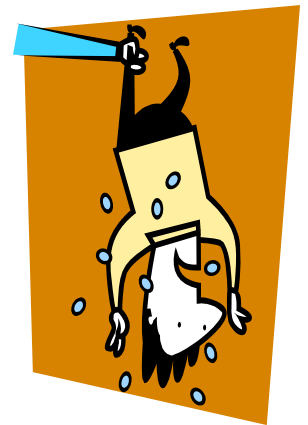
# Deployment : Coverage, quality and usage

- Level of usage of European services ?
  - TRANSPark 2000-3000 hits per month 2-6. 2010
  - TRUCKinform ?
- Common issues of data completeness and update quality, co-operation of sources
- How to improve the data set and help the information providers ?



# Market : Demand, willingness to pay and cooperate

- Pre-trip planning and on-trip info. markets very different
  - Pre-trip is truck company driven
  - On-trip is driver driven, needs driving friendly media
  - 90 %+ decide to stop up to 2-3 hours before
  - Majority of stops based on sanitary or legal requirement
- ☹ Limited objective information on the market potential and information quality requirements
- ☹ Seems to be little willingness to pay for truck parking information
- ☹ No great interest of many parking operators to provide the truck parking data





# Market : Need and conditions for public sector support ?

- „Private“ information service provider(s) business model exists but based on cheap data and “free” supply



- Is the market potential restricted by current data quality ?

- ☹ No obvious way to get higher quality data without public sector (unless LABEL is a game changer)

- Public sector support of data sets probably way to go but...



- ☹ No studies available clearly justifying public investment

- ☹ Many countries not interested

- wants security information across full range of levels
- wants real time availability information where useful



# Organisational : Data collection model

- **Decentralised TPA data collection driven by member states and road operators ?**
- Given the institutional set-up, probably the only way to go
- How best to make this happen across whole of Europe, on public and private parking sites
- Obligatory provision, incentives for TPA operators, collection by MS ?
  - Various solutions probably required for different truck parking set ups across Europe
- Potential co-ordinating role of EASYWAY



# Organisational /Technical : Creating a harmonised European TPA data set

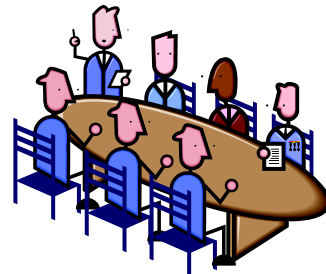
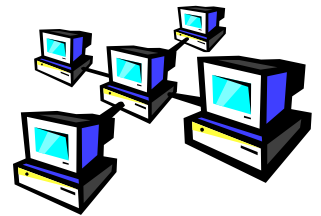
- Single harmonised TPA data structure ?
  - Through DATEX II ?, doesn't exist yet
- Simple TPA categorisation ?
  - Pictogram harmonisation for TPA features ?
  - Use of LABEL “lock” and „star“categories
- European LOS for information provision
- Potential of TCC/TICs to organise and store truck parking data
- How to migrate to such a solution ?

A table with multiple columns and rows, containing various pictograms and text labels, likely representing a data structure or categorization scheme for TPA features.

# Organisational / technical :

## How to give easy European access to the data set ?

- **Open interface access to European data set**
  - Simple and cheap interface for EU information service providers
- Shared access to data sets managed by member states / road operators?
- Technical solutions for data interface feasible
  - Distributed e.g. Transport Direct, EU-SPIRIT
- Extension of other protocols required (e.g. Alert-C)
- But who would procure this interface and coordinate it ?
  - Not the same as an agreed bi-lateral use of a shared standard
  - Potential advisory role of EASYWAY
  - Difficult without some direct, active European support



## Dynamic information on truck parking space availability at TPAs



***A key driver for public investment in a truck parking information system***

**State of deployment and key issues**

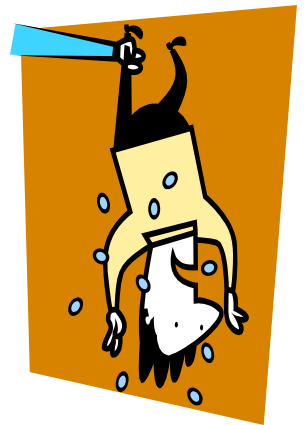
# Deployment experience

- **To help reduce illegal parking at overcrowded TPAs**
- Several VMS pilot implementations in France, Germany, Italy ...
  - Numbers of free spaces, full, free etc.
  - Road side or on-site issues management
  - Coordinated sections
- Delivery to on-board/personal devices not yet common
- Common issues of information reliability, highish costs



# Market : Willingness to pay and acceptance

- Delivery solutions
  - VMS + automatic detector 2000-4000 Euros per parking space
  - On-board, personal device equipment
- Two types of potential demand
  - Driver driven demand for on-line occupancy data
  - Historical data relevant for truck company stop planning
- Large potential „market“ as many drivers stop „spontaneously“
- ☹ Low willingness to pay by truck companies
- User acceptance issues :
  - Conflict between stopping legally and driving legally
  - Trust of information



# Market : Need and conditions of public sector support ?

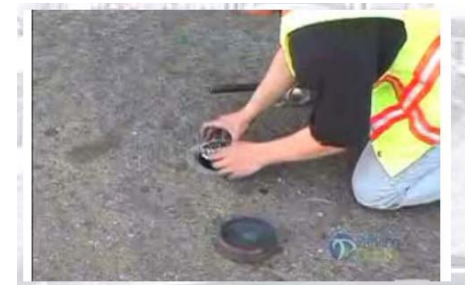
- „Private“ info. service provider business model probably exists...
  - but is based on cheap data
  - ....and real-time occupancy data is not cheap
  - not for VMS (except road concession contracts)
- Public sector investment in data is the only real option but...
  - ☹ No studies available clearly justifying public investment
  - ☹ Some countries not interested
- ! Safety requirement is key driver for public sector investment
- Real-time occupancy data can be catalyst for public sector support of EU TPA info. service





# Organisational /Technical : Real time occupancy information as part of EU service

- Part of the single harmonised TPA data structure
- Harmonisation for VMS and occupancy presentation
- Part of European LOS for information provision
- Built into TCC/TICs, DATEX II TPA model ?
- On-line data aspect to common interface
- Technology issues including site management
  - Reliability and cost of detection of HGV
  - Sites without energy supply
  - Use of wardens ?





## **Conclusions**

**Key points, missing knowledge at  
EU level**

# Key points for development of a European TPA info. service



1. Poor understanding of user needs, market potential and social benefits
2. Market willingness to pay is probably low (or niche market) and data costs high
3. Public sector organisation of and investment in data will probably be key
4. Security (across board) and real-time data (safety) a key driver of this investment
5. Decentralised data collection model needed, organised at national/regional levels
6. Enable complete EU information services through standard public dataset(s), presentation interface (role of DATEX II, TCC/TICs)+ simple EU access
7. LABEL type security and quality categories needed for simple comprehension, perhaps a driver for data collection
8. Need European co-ordination mechanism for a European TPA data interface
9. Remaining technology reliability and cost issues for real-time occupancy data

# Key missing elements / knowledge at EU level



1. Guidance on how to plan implementation of ITP in the overall strategic context
2. Analysis of the market for, usage of and user acceptance of existing systems
3. Analysis of the social cost benefit case of TPA information services
4. Inventory of current TPA information and data
5. Effective data collection models (organisational, institutional, financial)
6. Definition of standard data structure, data storage, data quality, service quality data-exchange, interface and dissemination standards
7. Model for procurement and management of EU TPA data interface
8. Research and development into dynamic truck parking detection methods