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# Occasional users – the unknown species in any tolling system

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# Phenomenon of occasional users

**Number of occasional users will increase in any RUC system due to increase of**

- international division of labour (“globalization”)
- cabotage
- « one time spot business »
- EU integration of former Eastern bloc countries

## **Germany**

- 50% of users are occasional users
- bringing only 10% of the revenue

# Example Germany - Costs

| Year | # User w/o OBU | # OBU   | # Toll trips per OBU |
|------|----------------|---------|----------------------|
| 2010 | 698,353        | 664,847 | 223                  |
| 2011 | 709,814        | 703,879 | 228                  |

Source: BAG Mautstatistik 2011, own calculations

## Result:

- Occasional users do not have same frequency of trips as regular users. It is thus set to 10-15% resulting in 20-30 toll trips per user.
- Result – Rule of thumb: In a system with obligatory OBU every occasional user needs a separate OBU
- Need for stock of approx. 700,000 OBU for occasional users

# Example Germany - Costs OBU

| Cost block    | # OBU   | Cost per month | Total costs per year |
|---------------|---------|----------------|----------------------|
| OBU Operation | 700,000 | 10 €           | 84 mio €             |

| Cost block              | # Swap cases | Price per swap | Total costs per year |
|-------------------------|--------------|----------------|----------------------|
| OBU Handling – Give-out | 2.1 mio      | 10 €           | 21 mio €             |
| OBU Handling – Take-in  | 2.1 mio      | 10 €           | 21 mio €             |

|                                     |  |  |                  |
|-------------------------------------|--|--|------------------|
| <b>Sum OBU Operation + Handling</b> |  |  | <b>126 mio €</b> |
|-------------------------------------|--|--|------------------|

## Remark:

- Costs per month: Statement of system supplier at ITS Congress Vienna 2012
- # Swap cases: 350,000 OBU x 6 swaps/year = 2.1 mio swaps/year  
Recharging, replacement and first endowment not considered
- Cost per swap: 10 min. x 1 €/min. = 10 € per swap

# Example Germany - Cost PoS

| Cost block    | # Tickets | Price per ticket | Total cost per year |
|---------------|-----------|------------------|---------------------|
| Ticket at PoS | 10.6 mio  | 2 €              | <b>21.2 mio €</b>   |

Source: BAG Mautstatistik 2011, own calculations

## Remark:

Costs per ticket: 1 min. x 2€/min. = 2 € per ticket

## Costs not considered as they are more or less the same in both systems:

- Costs for distribution network, i.e. OBU distribution points respectively PoS (Non-discrimination principle, 10 min. detour for access to tolling system accepted => equal density of network)
- Costs for equipment for OBU activation and for selling of tickets
- Costs for clearing of payment as kilometres driven and the resulting toll volume do not depend on tolling system

# Cost comparison OBU versus PoS

OBU

€ 126 mio pa

PoS

€ 21.2 mio pa

Obligatory OBU  
**6** times  
more expensive  
than PoS

Over **80%**  
cost saving  
with PoS