



# ID Solutions in Urban Transport and Traffic Management



# Topics to be covered

- M – parking payment system
- ID – ticketing system
- M – ticketing system
- Integrated system for PT management (inc internet based schedules and card based trip planner for PT and car users)
- Traffic monitoring over internet website and mobile phone
- Other innovative activity



# M – parking I



## Mobile Parking Payment System

**Mobile Parking Payment System** is a solution to provide significant additional value to all stakeholders in the parking industry by combining the core values of the old and new economy. Mobile Parking by EMT enables re-designing the parking industry value chain while implementing an easy-to-use and cost-efficient m-commerce solution. Mobile Parking by EMT provides GSM operators with an additional revenue stream and parking operators with remarkable savings arising from the growth of operational efficiency and with additional revenue.





# M – parking II

## **Advantages to the Customer – Speed and Convenience**

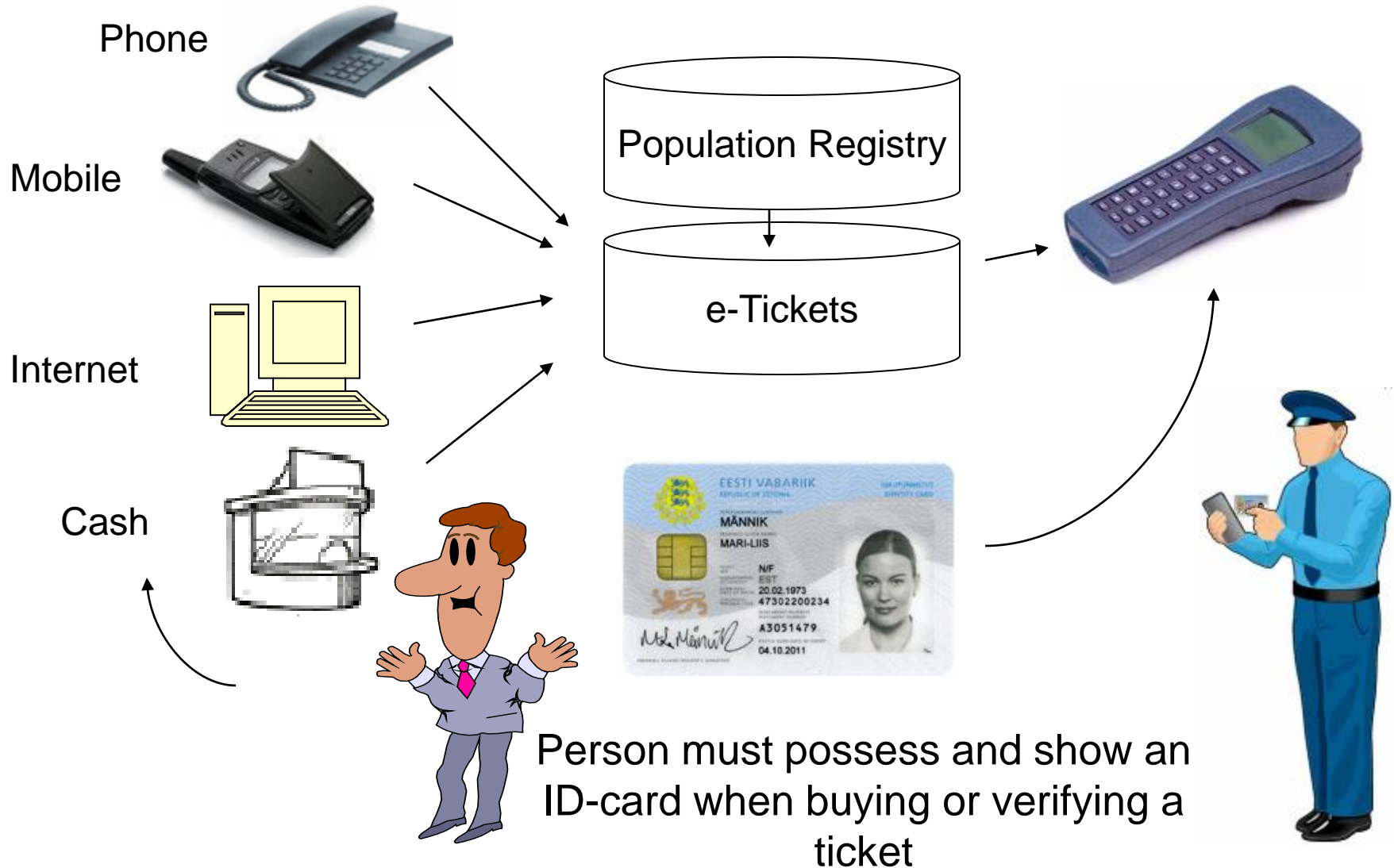
1. Easy to use: just dial a dedicated short number on a cell-phone or send SMS to start or end parking
2. Ease of payment: from anywhere: from the car, from the office, from home - do not have to go to a machine.
3. Do not have to have the required coinage or any coins at all.
4. Do not have to worry about getting back to the car if a specified time has expired, just extend parking by call from your cell-phone.
5. Do not have to purchase a specific amount of time, pay only for time used with precision of one minute.
6. Greater safety: the customer does not have to go to a meter/machine on the dark parking place.
7. Customer can open the MPPS account by web (providing credit card) or on the fly – topping up MPPS account from the scratch card which bought from the kiosk or gasoline station.
8. Choice of account payment: (a) deducted directly from a credit card; (b) by pre-authorized cheque – scratch card; (c) by repayment of any kind; or a combination of methods.
9. On-line real time record-keeping with MPPS's monthly record of transactions.
10. Corporate account – employee is parking company car – company pays.

## **Advantages to the Parking Operator:**

1. No capital investment: only may use, if chosen so, hand-held realtime enforcement devices. As alternative – use just a regular cell phone for enforcement.
2. More customers, therefore more revenue. Even lazy people will park as it is so easy.
3. Improved revenue collection, just no coins to collect.
4. Reduced fraud risk by operating through MPPS.
5. Greater customer convenience, in Estonia service chosen already by 45% of parking customers.
6. Easily can integrated with enforcement and bookkeeping system.
7. Can reward frequent-use customers with a loyalty program.
8. First time in the history Parking Operator will exactly know where his parking wardens are and what they are doing, as it is possible to track each car inspection in real-time.



# ID – ticketing system I





# ID - ticketing system II



## ID - TICKET

Starting March 1, 2004 a new virtual ID-card-based payment and control system was employed in Tallinn public transportation system.

### Benefits:

- Optimized distribution costs (less need for printing and delivering paper tickets)
- Better service through flexible channels for purchasing a ticket (even your mobile or fixed telephone serves as a point of sales)
- personalized tickets
- Online statistics and cash control



## M – ticketing system

In the summer of 2002 (for 2 month) a pilot project was launched - the possibility to pay by mobile phone for a trip (1 hour) on four PT routes. The results were promising, usage was 300 tickets in pilot project time.

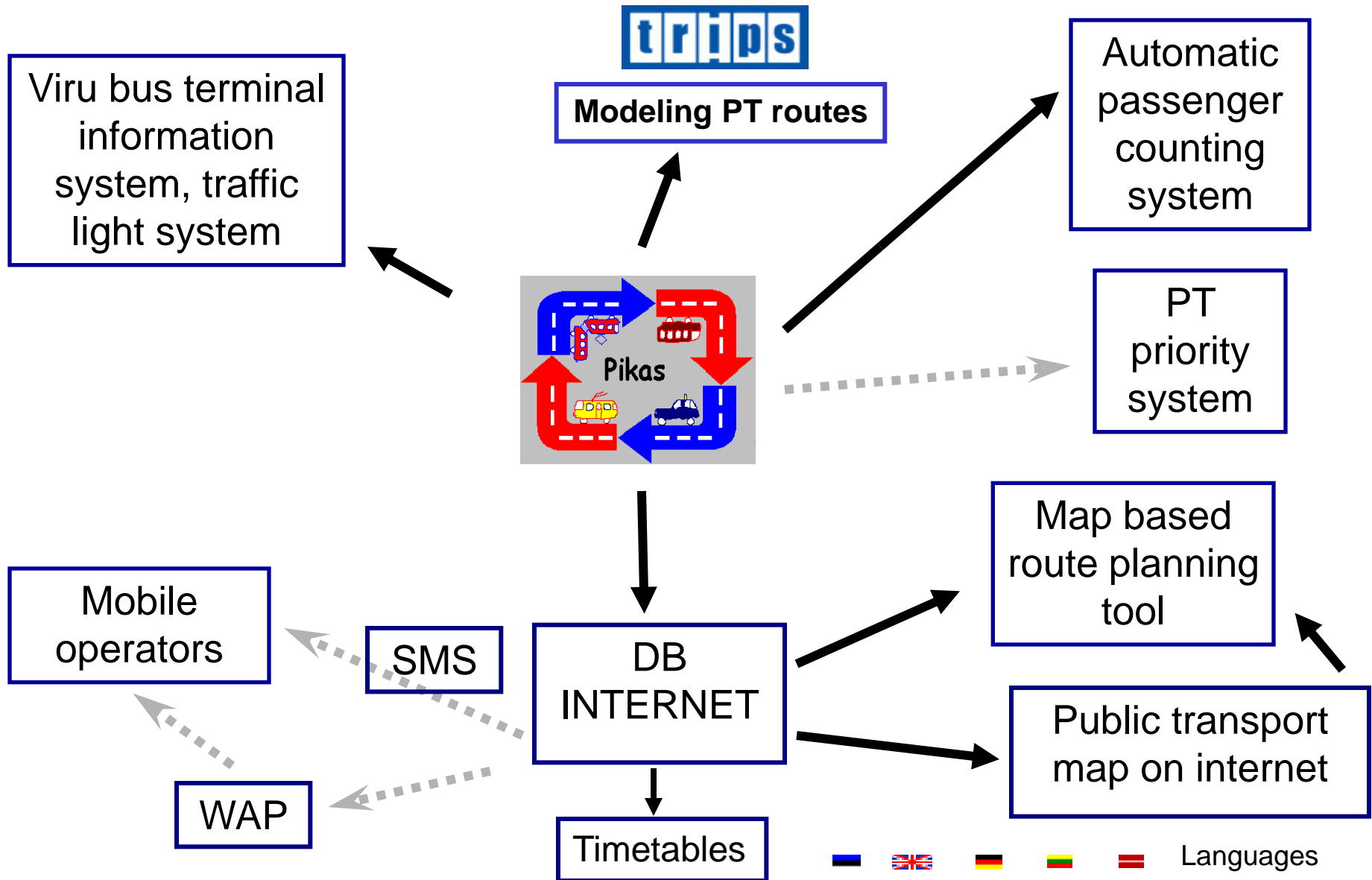
Now there are available M – tickets for 1 and 2 hours on all the PT routes.

### **M – tickets:**

- User friendly and attainable
- Reduced fraud risk and easy to control



# Integrated system for PT management







# Internet



Internet Explorer browser window showing the Tallinn Public Transport website. The page includes navigation tabs for RESIDENT, ENTREPRENEUR, TOURIST, and CITY ADMINISTRATION. A sidebar menu lists 'For Residents' and 'Public Transport Timetables' with sub-options for Bus, Trolleybus, Tram, and Route-taxi. A search bar is visible at the bottom of the sidebar.

## Traffic schedules

TROLLEYBUSES

**BUSES**

TRAMS

### 14 Viru keskus - Vana-Pääsküla (Mon-Fri)

Lines and departure times

City area	Street	Stop	Arrival	Trolleybuses	Buses
Kesklinn	Gonsiori tn	<b>Viru keskus 2</b>	09:08		<a href="#">14</a> <a href="#">48</a>
Kesklinn	Pärnu mnt	<b>Viru</b>	09:10		<a href="#">5</a> <a href="#">14</a> <a href="#">18</a> <a href="#">20</a> <a href="#">20A</a>
Kesklinn	Pärnu mnt	<b>Vabaduse väljak</b>	09:11		<a href="#">5</a> <a href="#">14</a> <a href="#">18</a> <a href="#">20</a> <a href="#">20A</a>
Kesklinn	Pärnu mnt	<b>"Kosmos"</b>	09:14		<a href="#">5</a> <a href="#">14</a> <a href="#">18</a> <a href="#">20</a> <a href="#">20A</a>
Kesklinn	Pärnu mnt	<b>"Kalev"</b>	09:18		<a href="#">5</a> <a href="#">14</a> <a href="#">18</a> <a href="#">20</a> <a href="#">20A</a>
Nõmme	Vabaduse pst	<b>Valdeku</b>	09:24		<a href="#">14</a> <a href="#">18</a> <a href="#">33</a>
Nõmme	Vabaduse pst	<b>Nurme</b>	09:25		<a href="#">14</a> <a href="#">18</a> <a href="#">33</a>
Nõmme	Vabaduse pst	<b>Hiiu</b>	09:28		<a href="#">14</a> <a href="#">18</a>
Nõmme	Vabaduse pst	<b>J.V.Jannseni</b>	09:30		<a href="#">14</a> <a href="#">18</a>
Nõmme	Vabaduse pst	<b>Vikerkaare</b>	09:32		<a href="#">14</a> <a href="#">18</a>
Nõmme	Vabaduse pst	<b>Raba</b>	09:32		<a href="#">14</a> <a href="#">18</a>
Nõmme	Pärnu mnt	<b>Pärnu maantee</b>	09:34		<a href="#">10</a> <a href="#">14</a> <a href="#">18</a> <a href="#">27</a>
Nõmme	Pärnu mnt	<b>Vana-Pääsküla</b>	09:36		<a href="#">10</a> <a href="#">14</a> <a href="#">18</a> <a href="#">27</a>

## Traffic schedules

Trolleybus, **Buses**, Trams. Search stop:

### 3 Veerenni - Randla

Route: Vana-Lõuna tn, Herne tn, Veerenni tn, Liivalaia tn, A.Lauteri tn, Rävälä pst, A.Laikmaa tn, Gonsiori tn, Raua tn, Pronksi tn, Narva mnt, Viru väljak, Mere pst, Põhja pst, Soo tn, Tööstuse tn, Sitsi tn, Madala tn

#### Stop Veerenni

	Mon-Fri	Saturday	Sunday
5	<a href="#">16</a> 35 53		
6	<a href="#">12</a> 30 48	6 <a href="#">01</a> 28 <a href="#">55</a>	
7	03 <a href="#">14</a> 25 37 49	7 21 37 <a href="#">53</a>	7 <a href="#">01</a> 21 41
8	01 13 <a href="#">25</a> 37 49	8 09 25 41 57	8 <a href="#">00</a> 20 40
9	04 19 34 <a href="#">50</a>	9 13 <a href="#">28</a> 44 59	9 <a href="#">00</a> 20 41
10	07 24 41 <a href="#">57</a>	10 10 21 <a href="#">34</a> 47	10 01 <a href="#">22</a> 42
11	14 31 48	11 00 13 26 <a href="#">50</a> 52	11 03 14 <a href="#">26</a> 47

Map showing bus routes and stops in Tallinn. A red line indicates the route from Viru keskus 2 to Vana-Pääsküla. A list of bus lines is shown on the right, with line 14 highlighted in red.

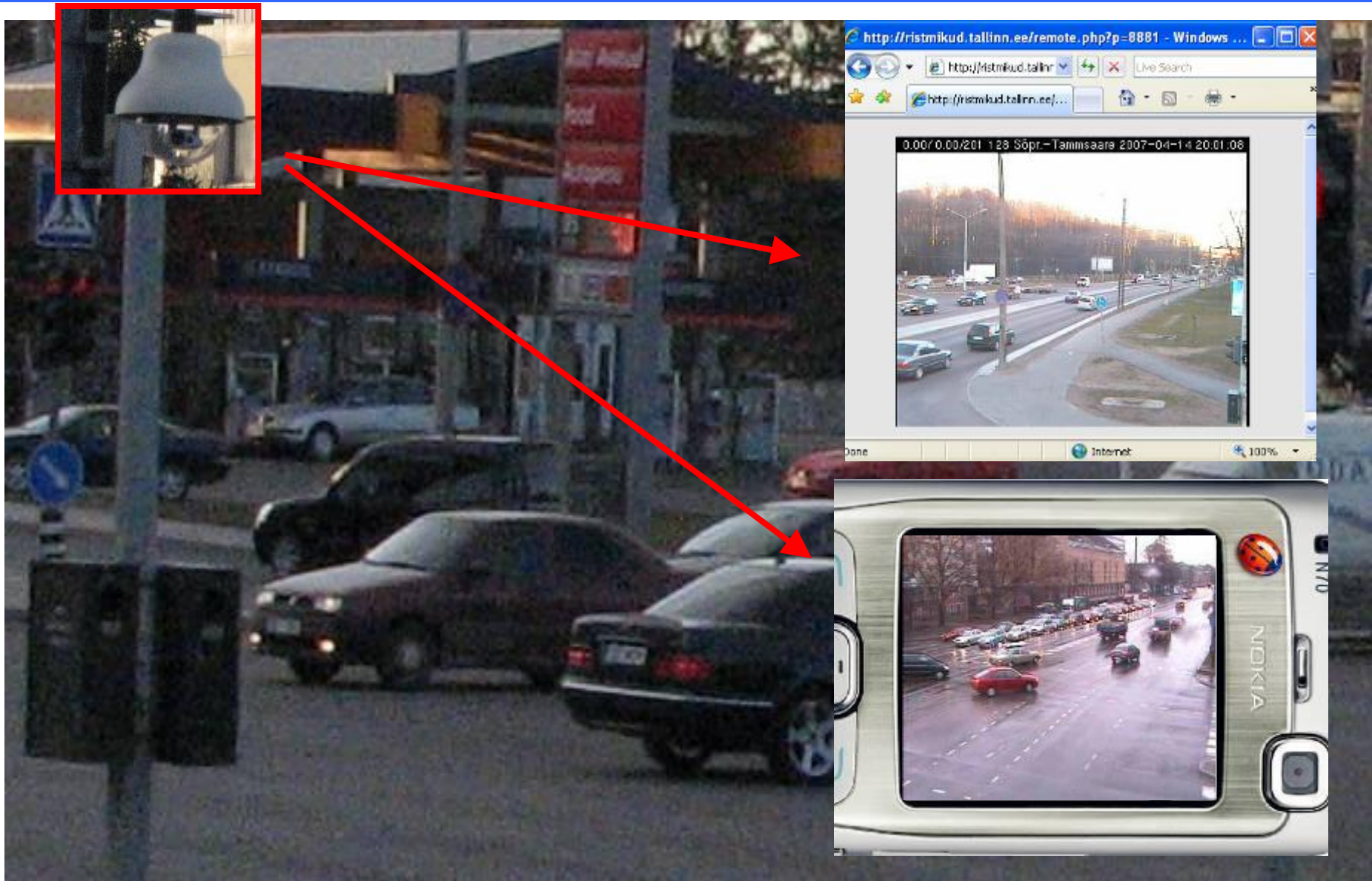


# Viru city bus terminal





# Online Traffic Monitoring over internet website and by mobile phone





## Other innovative activity

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- **School bus equipped with free WIFI - internet connection**
- **PT stop information for busses over GPS positioning**

# TALLINN



THANK YOU!

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