

# The ETS & its positive effects in the Czech Republic



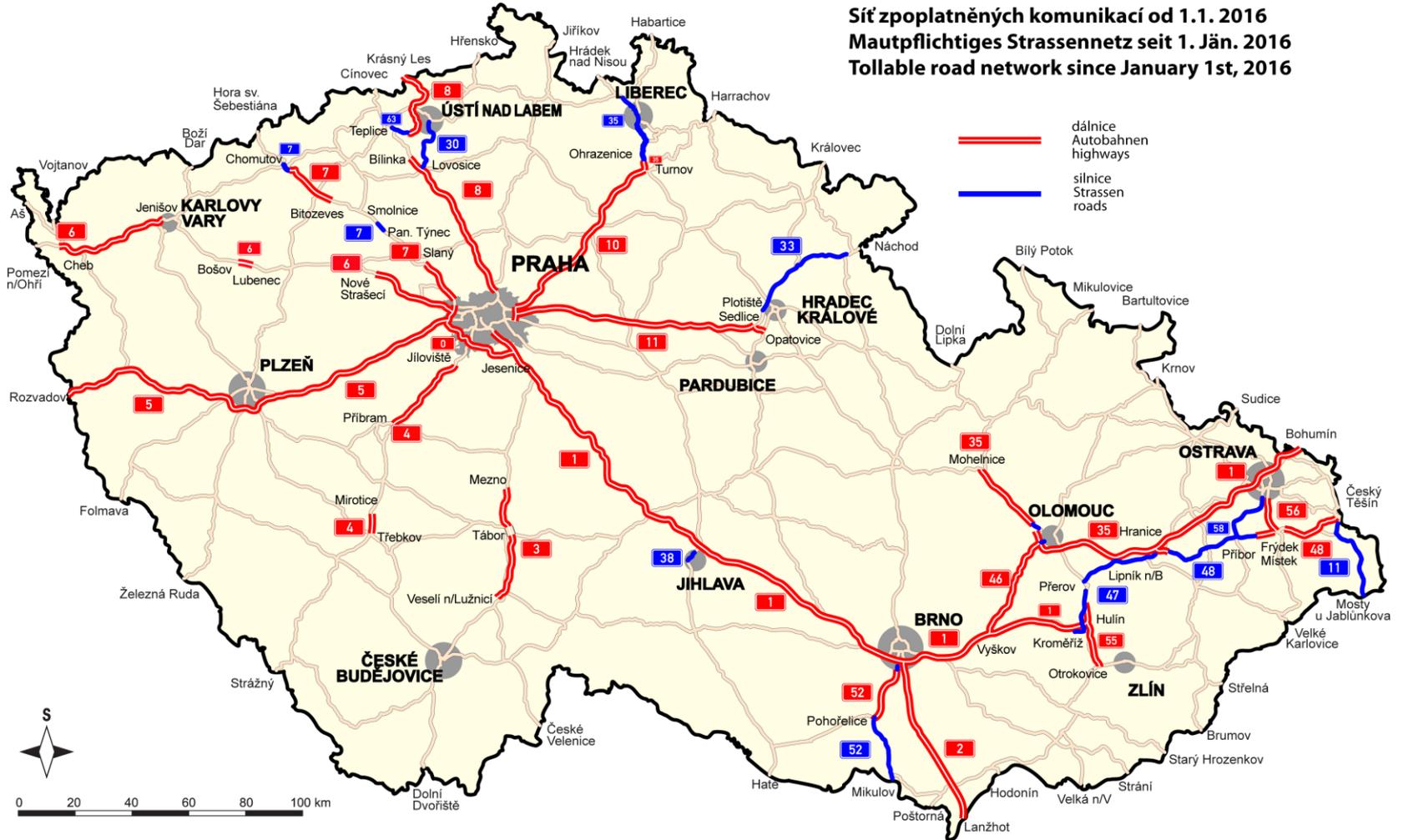
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## Current state of the toll system

- **A successful state IT project** = one invested crown earns four more, generating 5x more revenue than time-based morotway coupons.
- The toll system has already collected **2.65 billion EUR for the state** – by the end of the first decade of the cycle, it will add another 400 mio EUR. The state paid **3.4 billion CZK excl. VAT (136 mil. EUR) to build the toll system.**
- In recent years the operator has **refurbished and modernised the system** to ensure that it is prepared to collect toll beyond 2016.
- **Toll tariffs were raised** and new discounted Euro VI emission categories were implemented = **taking into account the environmental effect (see below).**
- **High toll efficiency** – the total performance of the Czech electronic toll collection system exceeds **99.6 %.**
- The Czech government **has decided to prolong the operation of the current DSRC toll system** = reliability, modernity, cost-effectiveness.

# Map of tolled roads in the Czech Republic



## Economic characteristics of the CZ ETS

- **This is one of only a few successful state investments in IT** - every crown invested generates a further five, meaning that it generates four times as much revenue as time-based motorway coupons previously used.
- **Quick return on investment** – within 7 months(!) of the beginning operation total toll revenues equalled construction costs.
- **Budget neutrality** – toll project without demands on the state budget = the state's contract with the contractor stated that the state would gradually repay the costs of delivery of the toll system within 4 years as of the start of the tender (once it acquired money from tolls).
- **Risk-free 'quasi-PPP' financing** – a successful cooperation between the private and public sector; all financing, implementation and risks were borne by the contractor.
- **High guarantees and warranties** – the contractor and operator guarantee the full functionality and efficiency of the toll system.

## Most recent results (after 108 months of operation)

year	toll collected in CZK	in EUR	year over year
2007	5 565 277 630	222 611 105	-
2008	6 144 152 102	245 766 084	+ 10.40 %
2009	5 543 272 476	221 730 899	- 9.78 %
2010	6 574 441 233	262 977 649	+ 18.60 %
2011	8 126 016 899	325 040 676	+ 23.60 %
2012	8 680 051 033	347 202 041	+ 6.82 %
2013	8 554 998 250	342 199 930	- 1.44 %
2014	8 714 961 818	322 776 364	+ 1.87 %
2015	9 732 139 723	360 449 619	+ 11.67 %
<b>TOTAL</b>	<b>67 635 311 173</b>	<b>2 650 754 368</b>	-

## Structure of toll payers in 2015.

- In the first half of the year both heavy and light trucks travelled over **2.5 billion kilometres** on the toll network, of which 56 % of the distance was on Czech roads and a total 44 % on foreign roads.
- The number of toll transactions, i.e. individual beeps of OBUs at toll gates, are the best indicator of the development of truck activity (irrespective of increases in toll charges). Over a nine-year period trucks in the Czech Republic **performed 2.8 billion toll transactions**.
- The highest proportion of toll in the Czech Republic is paid by **Czech trucks** with 53 %, followed by **Polish** (13 %) and **Slovak trucks** (12 %). The top five are completed by Hungarian (5.5 %) and Romanian trucks (5 %).
- At the opposite end of the list are more unusual countries such as Armenia, Algeria, Tajikistan, San Marino and Israel.
- The **top payer** last year was a truck, which paid over **1 million CZK (37 thousand EUR)** to the state in toll charges (a further 100 vehicles paid over half a million crowns (18.5 thousand EUR)).

## Environmental impact of the CZ ETS

- Since 2011 the state has used the toll system to implement both environmental and fiscal policy = reduction in harmful emissions from trucks.
- Following a dual increase in km tariffs (2011 and 2012), the lowest rates apply to vehicle emission class Euro V. Since 2015 a special rate has applied to emission class Euro VI+EEV.
- The state has always recorded immediate, rapid growth in the proportion of the most ecological vehicles to the total collected toll and associated toll reduction (annual loss up to 75 mil.EUR).

Decrease in harmful emissions from trucks in CZ	Comparison of 01/2011 (start of EuroV favouritism) and 01/2015
<b>CO - carbon monoxide</b>	<b>- 21 %</b>
<b>HC - hydrocarbons</b>	<b>- 28 %</b>
<b>NO – nitrogen oxides</b>	<b>- 40 %</b>

Note: with the increase in toll transactions by 15%

## The share of tolls paid by truck emission classes.

Year	Euro 0	Euro I	Euro II	Euro III	Euro IV	Euro V	Euro VI+EEV
<b>2009</b>	1.4 %	1.0 %	12.8 %	50.0 %	11.3 %	23.6 %	-
<b>2010</b>	1.2 %	0.9 %	12.0 %	47.1 %	12.8 %	26.1 %	-
<b>2011*</b>	0.9 %	0.7 %	9.8 %	44.0 %	13.2 %	31.4 %	-
<b>2012*</b>	0.7 %	0.5 %	7.4 %	39.2 %	13.3 %	38.9 %	-
<b>2013</b>	0.5 %	0.3 %	5.5 %	31.1 %	12.4 %	50.1 %	-
<b>2014</b>	0.4 %	0.2 %	4.1 %	23.7 %	11.2 %	<b>60.2 %</b>	<b>0.2 %</b>
<b>01/2015**</b>	0.2 %	0.1 %	2.7 %	19.4 %	9.8 %	51.7 %	<b>16.0 %</b>
<b>05/2015</b>	0.3 %	0.2 %	3.2 %	18.8 %	9.9 %	45.5 %	<b>22.2 %</b>
<b>12/2015</b>	0.2 %	0.1 %	2.4 %	15.4 %	8.5 %	42.7 %	<b>30.6 %</b>

\* dual increase in km tariffs + start of favouritism of emission class Euro V

\*\* launch of special rates for emission class Euro VI+EEV

## Quantity discounts on toll charges

- As compensation to transport operators for the double increase in toll tariffs, **starting in 2012** the state decided to introduce **discounts for trucks** that travel a large number of tolled kilometres and pay the relevant amount in toll charges.
- This is conditional on an active application and the more detailed registration of every vehicle and operator. 2/3 of applicants for discounts are Czech entities.
- Since 2013 the state has paid transport operators approx. 150 million CZK (5.6 million EUR) in discounts every year, and over 200 million crowns (7.4 million EUR) for last year.

Amount paid in toll during the year	Toll discount provided
<b>75 thousand CZK = 2,800 EUR</b>	<b>5 %</b>
<b>110 thousand CZK = 4,000 EUR</b>	<b>8 %</b>
<b>190 thousand CZK = 7,000 EUR</b>	<b>11 %</b>
<b>300 thousand CZK = 11,000 EUR</b>	<b>13 %</b>

Note: Rules valid for year 2015. Source: Ministry of Transport of the Czech Republic

Thank you for your **attention.**



**Kapsch**

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