Trial Implementation of Congestion Charging in Stockholm
Swedish Road Administration (SRA)
Aims and objectives

• Reduce traffic at rush hours by 10-15% to and from the inner city zone

• Better level of service in Stockholm traffic

• Reduce emissions of carbon dioxide, nitric oxide and particulate matter

• City residents will feel that the environment has improved

• More resources for public transport
Three components

- Park & Ride
- Public Transport
- Congestion Tax
SRA Task

The Government commissioned the SRA to conduct a trial implementation of congestion charging in Stockholm:

“The Government instructed the SRA to, by no later than September 1st 2004, ensure that it has contracted the equipment, etc required to carry out its tasks in the City of Stockholm in compliance with the proposed Congestion Tax Act (Bill 2003/04:145).”

SRA = the Swedish Road Administration, Vägverket
CONGESTION TAX
18 Control Points

- A charge is made when entering/exiting the centre of Stockholm
- Essingeleden is excluded
Weekdays
6.30 am – 6.29 pm

- SEK 10, 15 or 20 / passage on weekdays
- No congestion tax during evenings, nights and weekends
- Maximum tax SEK 60 per day and vehicle
- Lidingö – free passage through the city centre to/from Lidingö within 30 minutes

<table>
<thead>
<tr>
<th>Time</th>
<th>Charge</th>
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<tbody>
<tr>
<td>06.30 – 06.59</td>
<td>SEK 10</td>
</tr>
<tr>
<td>07.00 – 07.29</td>
<td>SEK 15</td>
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<tr>
<td>07.30 – 08.29</td>
<td>SEK 20</td>
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<tr>
<td>08.30 – 08.59</td>
<td>SEK 15</td>
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<tr>
<td>09.00 – 15.29</td>
<td>SEK 10</td>
</tr>
<tr>
<td>15.30 – 15.59</td>
<td>SEK 15</td>
</tr>
<tr>
<td>16.00 – 17.29</td>
<td>SEK 20</td>
</tr>
<tr>
<td>17.30 – 17.59</td>
<td>SEK 15</td>
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<tr>
<td>18.00 – 18.29</td>
<td>SEK 10</td>
</tr>
<tr>
<td>18.30 – 06.29</td>
<td>SEK 0</td>
</tr>
</tbody>
</table>
No barriers, no stops, no roadside payments

- Amount due for payment shown at the control point.
- Automatic identification. Number plates photographed.
- Very little of the car is shown on photograph – people and objects inside the car cannot be seen.
Toll road sign

Vardagar
(ej dag före söndag och helgdag)

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<tr>
<th>Kl</th>
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<tr>
<td>0630 - 0659</td>
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<td>0700 - 0729</td>
<td>15:-</td>
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<td>0730 - 0829</td>
<td>20:-</td>
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<tr>
<td>0830 - 0859</td>
<td>15:-</td>
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<td>0900 - 1529</td>
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<td>1530 - 1559</td>
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<td>1600 - 1729</td>
<td>20:-</td>
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<tr>
<td>1730 - 1759</td>
<td>15:-</td>
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<tr>
<td>1800 - 1829</td>
<td>10:-</td>
</tr>
</tbody>
</table>

Fordonspassage innebär automatisk registrering av personuppgifter

Vägverket
0771 - 29 29 29

Control point 4. Johanneshov bridge (photomontage)
TECHNOLOGY
Roadside equipment

Camera 1  Laser  Transceiver  Camera 2

“Control Point” & Cost
Data from the passage is stored in the Multi-Lane Controller (MLC)

- **Camera**
  - Two photographs
  - Number plates read via OCR

- **Laser**
  - Vehicle profile

- **Aerial**
  - Onboard unit identification

- **Time Date ID**
Only the number plate is photographed
423 000 onboard units distributed
(May 2006)
Paid within 14 days

- Via direct debit. An onboard unit can be borrowed free of charge from the SRA.
- At any of Pressbyrå kiosk or 7-Eleven outlet in Sweden.
- Via Internet bank, Plusgiro or Bankgiro.
- Internet payment by credit card.
Two direct communication channels with the general public

Joint website
www.stockholmsforsoket.se
(including brief information in English and other languages)

Customer Services
call 0771-29 29 29
Monday-Friday
7 am – 9 pm
# “My tax decisions”

<table>
<thead>
<tr>
<th>Date</th>
<th>Due date</th>
<th>Status</th>
<th>Total amount</th>
<th>Balance due</th>
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<td>20,00</td>
<td>0,00</td>
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<td>2006-03-08</td>
<td>2006-03-15</td>
<td>Befald</td>
<td>45,00</td>
<td>0,00</td>
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<tr>
<td>2006-01-19</td>
<td>2006-01-24</td>
<td>Befald</td>
<td>20,00</td>
<td>0,00</td>
</tr>
<tr>
<td>2006-01-16</td>
<td>2006-01-23</td>
<td>Befald</td>
<td>20,00</td>
<td>0,00</td>
</tr>
<tr>
<td>2006-01-12</td>
<td>2006-01-17</td>
<td>Befald</td>
<td>10,00</td>
<td>0,00</td>
</tr>
<tr>
<td>2006-01-06</td>
<td>2006-01-16</td>
<td>Befald</td>
<td>30,00</td>
<td>0,00</td>
</tr>
</tbody>
</table>
Number of visitors at the website

Number of visitors/day

0 5 000 10 000 15 000 20 000 25 000 30 000 35 000 40 000
Customer Services is our public image

**Front-line** Factual answers concerning how and why:
*Information, handling onboard units, registration and payment issues*

**E-mail, telephone, fax, letters**

**How?**

**Back office** Complex issues such as compensation claims, complaints, incorrect payments, reminders, reviews

**3rd line** Public authority decisions: Replied to by specialists/administrators

**Why?**

- SRA
- National Tax Board
- Enforcement Service
- City of Stockholm
The SRA’s service to legal entities with more than 20 vehicles

Automated payment routine
- Payment using direct debit and onboard unit.
  - Automated payment reduces the risk of reminder fees.
- Simple ordering of onboard units and vehicle registration online.

Reporting
- Daily list of the tax decision for each vehicle via e-mail.

Information
- Leasing car administrators can receive support for their customers through meetings and information material. (For customers of leasing firms)

Special customer service for corporate customers
- 0771-29 29 29 (company cars)
- Information meetings at the SRA for companies owning more than 100 vehicles
- Personal visits to companies with more than 1000 vehicles
Corporate services on the web
https://www.trangselskatt.vv.se/registrering
COMMUNICATION
Overall communication goal

Everyone entering Stockholm after January 3, 2006 in a vehicle registered in Sweden should be aware of the congestion tax and of the fact that the car owner must pay without having been prompted to do so.

Traffic, the system, and Customer Services will run smoothly from Day One.

High penetration level that the target group assimilates the information is a key success factor.

Strategy: Intensive communication, keeping a low profile
Tone of the communication during the trial implementation period

Focus on “HOW” – not “WHY” messages

Factual - Neutral – No Value Judgements
Informative – not Opinionated

Based on the SRA vision and organisational concept

“We make the good journey possible”
Communication activities

Direct communication combined with public information

**Direct communication:**
- Letters, “postcard”, cover letter with tax sticker
- Activities around town
- Meetings
- Car-park tickets

**Public communication:**
- Advertisements, inserts in daily newspapers
- Posters at city entrances, on parking metres
- Bus advertisements
- Radio (and TV)
- SRA leaflets
Extensive media coverage
A personally addressed letter to all vehicle owners in Sweden
"The Congestion Tax Magazine"
Messages adapted to level of public awareness

The diagram shows the percentage of the public that had 7-10 correct answers on 10 questions about the congestion tax.

Family with car
Focus on onboard units
28th November – 2nd December

“Order your onboard unit before the 9th of December…”

- Dagens Nyheter (29 Nov and 1 Dec)
- Svenska Dagbladet (29 Nov and 1 Dec)
- Stockholm City (29 Nov and 1 Dec)
- Mitt i-tidningarna (29 Nov)
- Aftonbladet (28 Nov)
- Expressen (28 Nov)
- Lidingö Tidning (29 Nov and 2 Dec)
- Länstidningen Södertälje (29 Nov and 2 Dec)
- Norrtelje Tidning (29 Nov and 2 Dec)
- Nynäshamns Posten (29 Nov and 2 Dec)
- Metro Stockholm (29 Nov and 2 Dec)
Information and payment at Pressbyrå and 7-Eleven outlets

Pressbyrå and 7-Eleven outlets all over the country:

• Pocket-sized facts booklet

In Stockholm from beginning of November 2005:

• Envelope with contract for onboard unit and direct debit
Key communication channels

Percentage of general public who in six separate questionnaires indicated which communication channels they considered important for receiving information about the congestion tax in Stockholm.
Media coverage
December 2005 - March 2006
Experience so far

Statistics as of March – May 2006
Service level

99.9% up-time January - March 2006
Identification mainly through Onboard units (OBU)

Total number of onboard units distributed approx. 423 000

OBU 48.4 %
OCR¹) 41.8%
MCR²) 9.8%

¹) Photos, ²) Manual recognition
Five months of operation

- Number of passages: 34,047,400
- Tax decisions: 10,589,500
- Reminder 1: 437,000
- Reminder 2: 101,000
- Reminder 3: 39,000
- Appeals to the tax authority: 9,841
- Court appeals: 420
- Tax income: SEK 292 million

Payments (May)
- Direct debit: 65%
- Retail stores: 22%
- Banks: 13%
# An average weekday in May

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
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<tbody>
<tr>
<td>Passages</td>
<td>371 300</td>
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<tr>
<td>Tax decisions</td>
<td>115 100</td>
</tr>
<tr>
<td>Reminder 1</td>
<td>6 300</td>
</tr>
<tr>
<td>Reminder 2</td>
<td>1 500</td>
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<tr>
<td>Reminder 3</td>
<td>840</td>
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<tr>
<td>Appeals to the tax authority</td>
<td>100</td>
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<tr>
<td>Court appeals</td>
<td>5</td>
</tr>
<tr>
<td>Tax income</td>
<td>SEK 3 060 000</td>
</tr>
<tr>
<td>Number of calls to customer services</td>
<td>2 200</td>
</tr>
</tbody>
</table>
Passages per day, Jan 3 – May 31

- Passages per day at control points 6 am – 7 pm
- Trend
- Tax decisions per day
- Trend

Graph showing the number of passages per day from January 3 to May 31, 2006.
# 24 hour cycle – simplified view

<table>
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<tr>
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<tbody>
<tr>
<td>Register passages</td>
<td>Daily processing</td>
<td>MCR</td>
<td>Pre-reminder verification</td>
<td>Incoming payments</td>
<td>Manual matching</td>
<td>Tax decisions</td>
<td>Reminder</td>
<td>AG collection</td>
<td>BW Update</td>
<td>VTR update</td>
<td>OBU Distribution</td>
<td>Back-ups</td>
<td>Online</td>
<td></td>
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</tr>
</tbody>
</table>

- **Register passages**: Register the passages
- **Daily processing**: Daily processing tasks
- **MCR**: Manual correction and resolution
- **Pre-reminder verification**: Pre-reminder verification
- **Incoming payments**: Incoming payments
- **Manual matching**: Manual matching
- **Tax decisions**: Tax decisions
- **Reminder**: Reminder
- **AG collection**: AG collection
- **BW Update**: BW Update
- **Payment lot**: Payment lot
- **Print-outs**: Print-outs
- **VTR update**: VTR update
- **OBU Distribution**: OBU Distribution
- **Back-ups**: Back-ups
- **Online**: Online
Reduction in traffic during taxed hours, April 2006 compared to April 2005
Example of “natural” annual variation

Index 100 = Annual average daily traffic

Jan, Feb, March, April, May, June, July, Aug, Sep, Oct, Nov, Dec
Passages per hour Jan-April 2006
Congestion reduced over a wide area

- Greatest improvement in and around the inner city
- Substantially less congestion on Stockholm access roads
- Still congestion problems on the Lidingö bridge during morning hours
- Substantial reduction in traffic to/from city centre
- Traffic on Essingeleden largely unchanged
- Significant increase in use of public transport
- Fewer parking fines in city centre
91% of vehicles from Stockholm County

Of total passages...
91% from Stockholm County
44% from City of Stockholm
21% from city centre

Outside Stockholm County:
  Uppsala 0.7%
  Västerås 0.3%
  Enköping 0.2%

(Taxed passages; privately owned vehicles)

April 2006