

Automatic Traffic Enforcement Strategies

Sensys Traffic
endless
possibilities...

UNECE November 26, 2009

Agenda

- » **Introduction**
- » **Automatic Traffic Enforcement**
- » **Procurement models**
- » **Conclusion**

Introduction

Sensys Traffic
endless
possibilities...

Introduction

The following presentation is based on experience from the traffic enforcement market of implementation of automatic enforcement systems around the globe

Introduction Sensys Traffic AB

- » Traffic Safety and ITS – primarily speed and red light enforcement systems
- » Market leader in Scandinavia and the Middle East
- » Final customers are primarily the Police and Road Administration
- » Listed on Nasdaq OMX Stockholm
- » Part of the Vision Zero Initiative



Photo: Lars Lindström/SRA

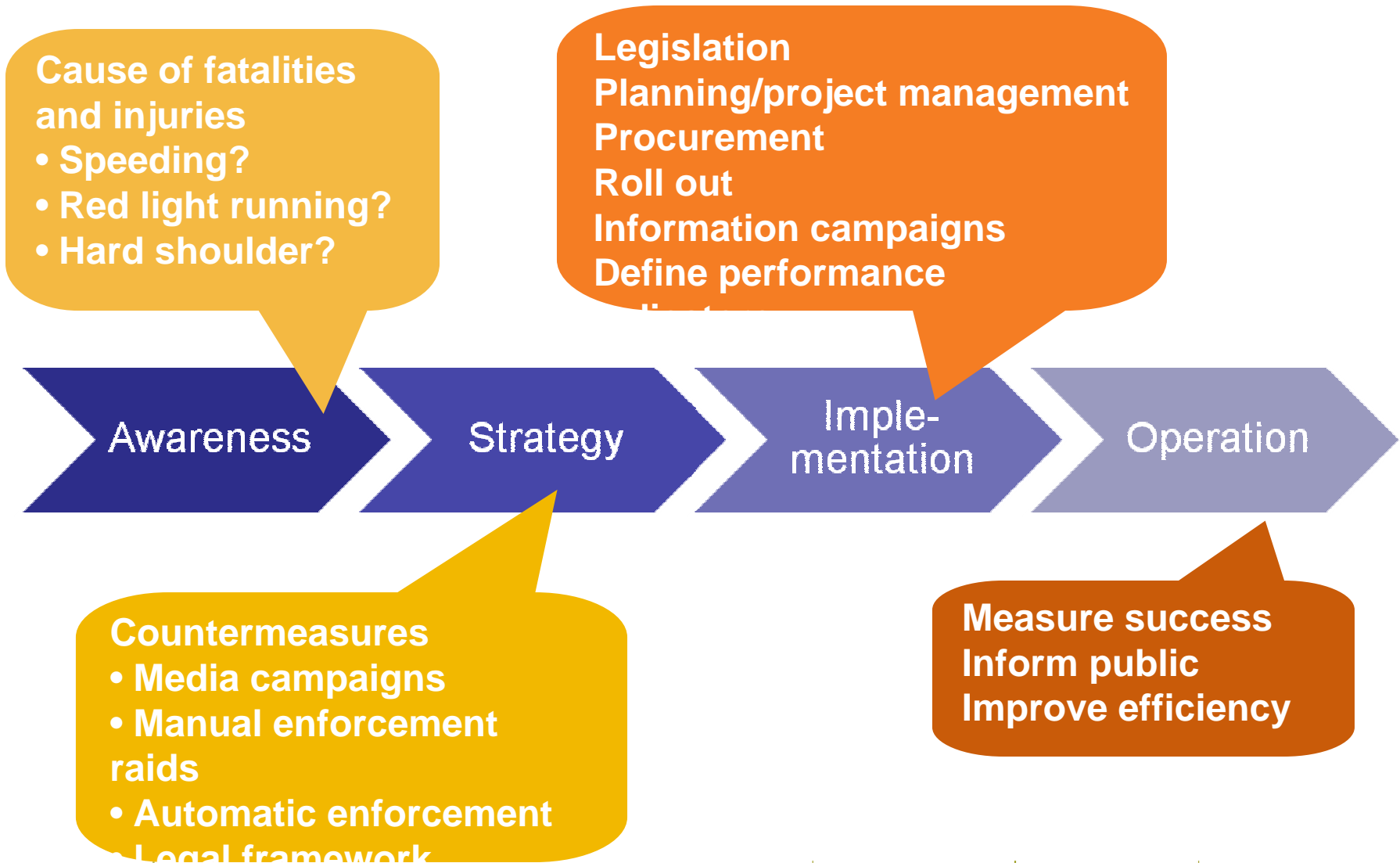
Automatic Traffic Enforcement

Sensys Traffic
endless
possibilities...

National Traffic Safety Process



Automatic Enforcement System



Automatic Traffic Enforcement

Enforcement of

- » Speeding
- » Red light running
- » Truck/bus speeding
- » Hard shoulder running
- » Work area speeding
- » School zone speeding

Addressing

- » Driver behaviour
- » Driver stress
- » Driver safety
- » Accessibility
- » Pedestrian safety
- » Road worker safety
- » School children safety

Two different enforcement strategies

Supportive

- » Main objective to reduce fatalities
- » Reduce average speed
- » Visible cameras with signs
- » Addressing public acceptance
- » Changing driver behaviour
- » Builds on the public understanding the reasons for the system
- » Legal security is key in technology

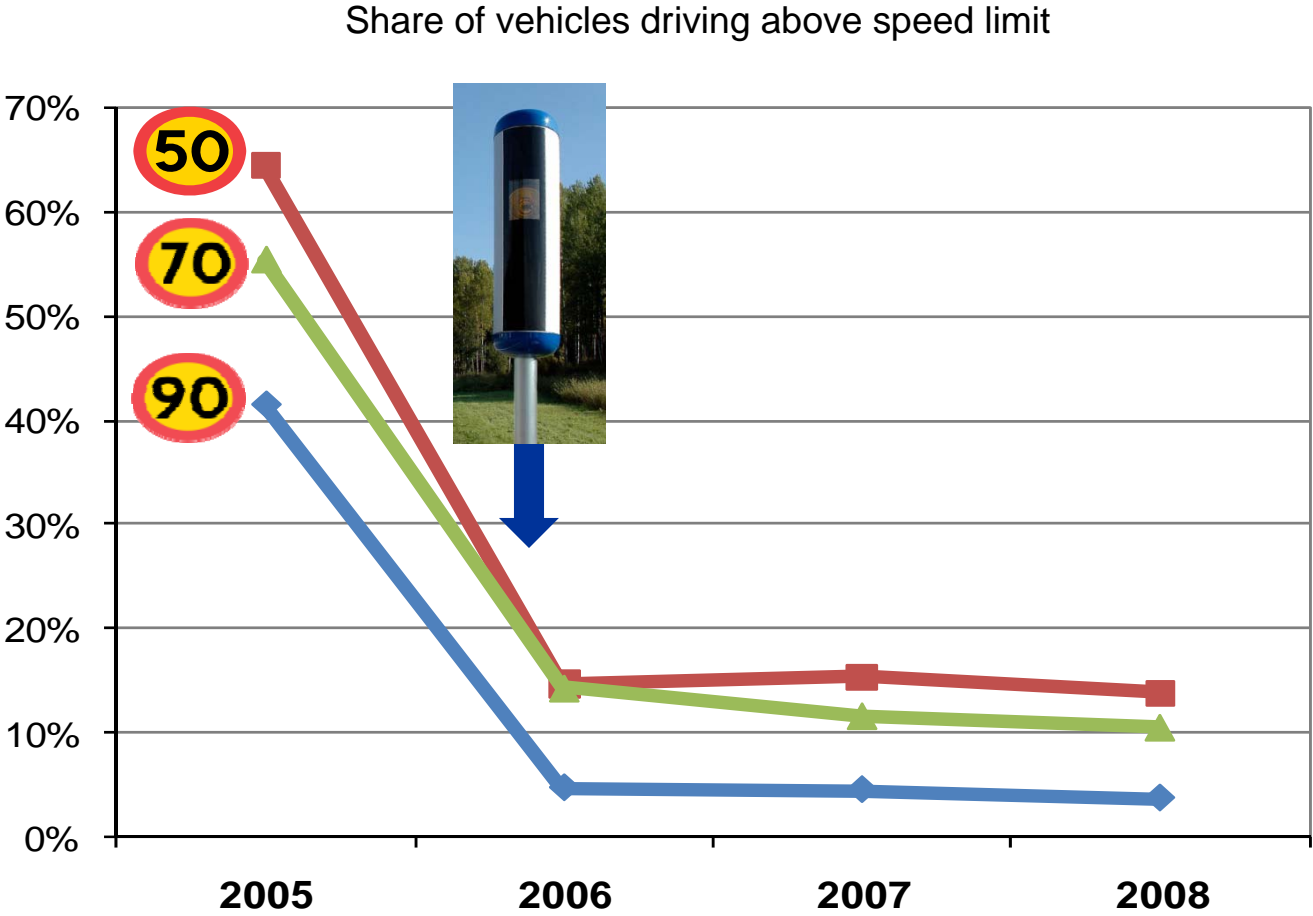
Repressive

- » Main objective is to maximize number of issued tickets
- » Maximize revenues
- » Covert cameras, surprise element
- » Enforcing speed limits
- » Penalizing driver behaviour
- » Builds on the public being made aware by friends that have been caught
- » Performance in volume of violations is key in technology

Ex.: Supportive strategy - ATK in Sweden

- » Information campaigns – the Swedish Life Saver
- » 1,070 systems on secondary roads with high fatality rates
- » 10 buses and 15 trailers mobile systems
- » Signs before cameras
- » Reduction of average speed of 6-9 km/h
- » Reduction of fatalities with 20-30 lives per year
- » Reduction of CO2-emission by 25,000 tons per year
- » Acceptance >70% of the population approve to the use of speed cameras (ATK)
- » Issuing just over 100,000 tickets per annum

Ex.: Supportive strategy ATK in Sweden



Source: SRA

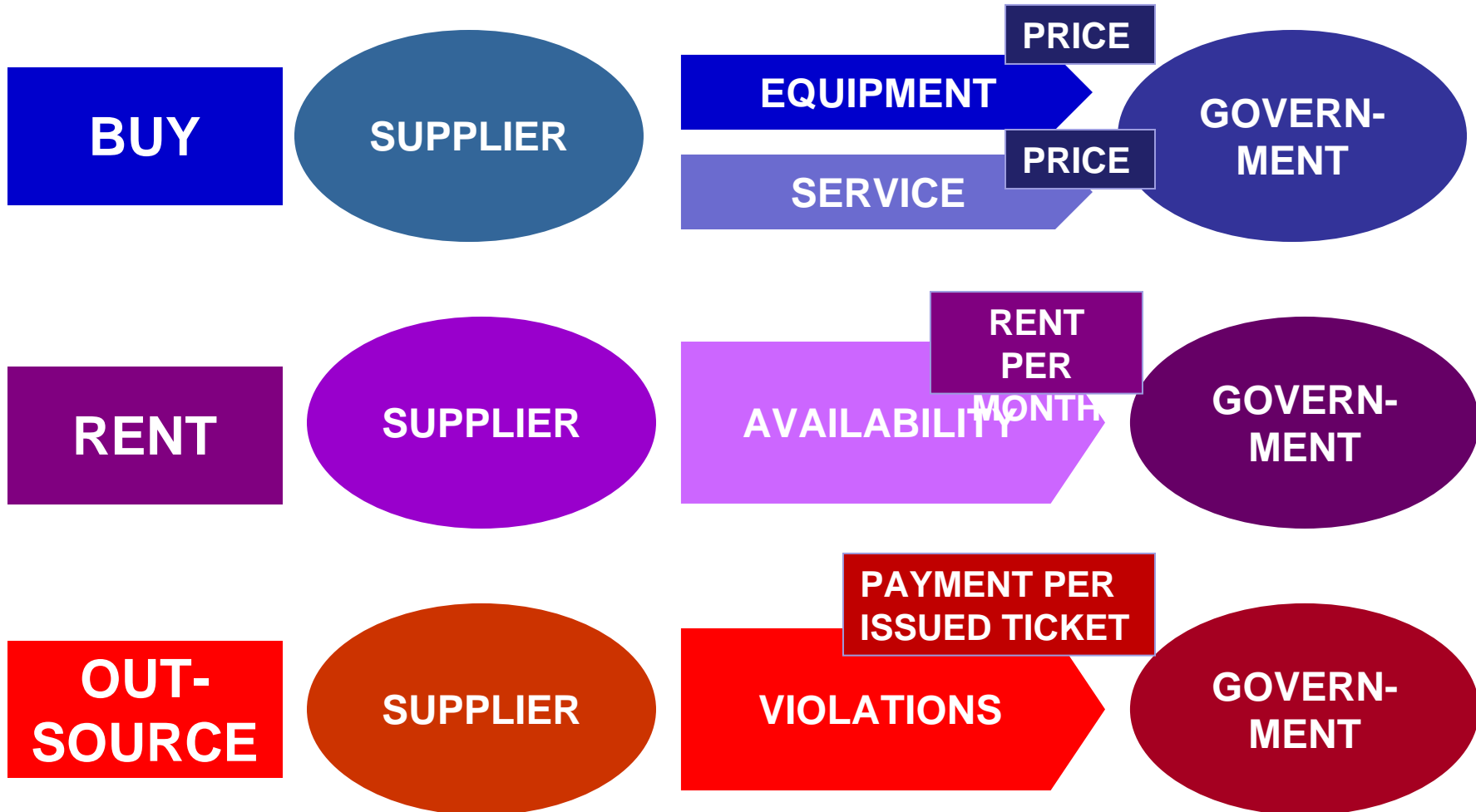
Procurement Models

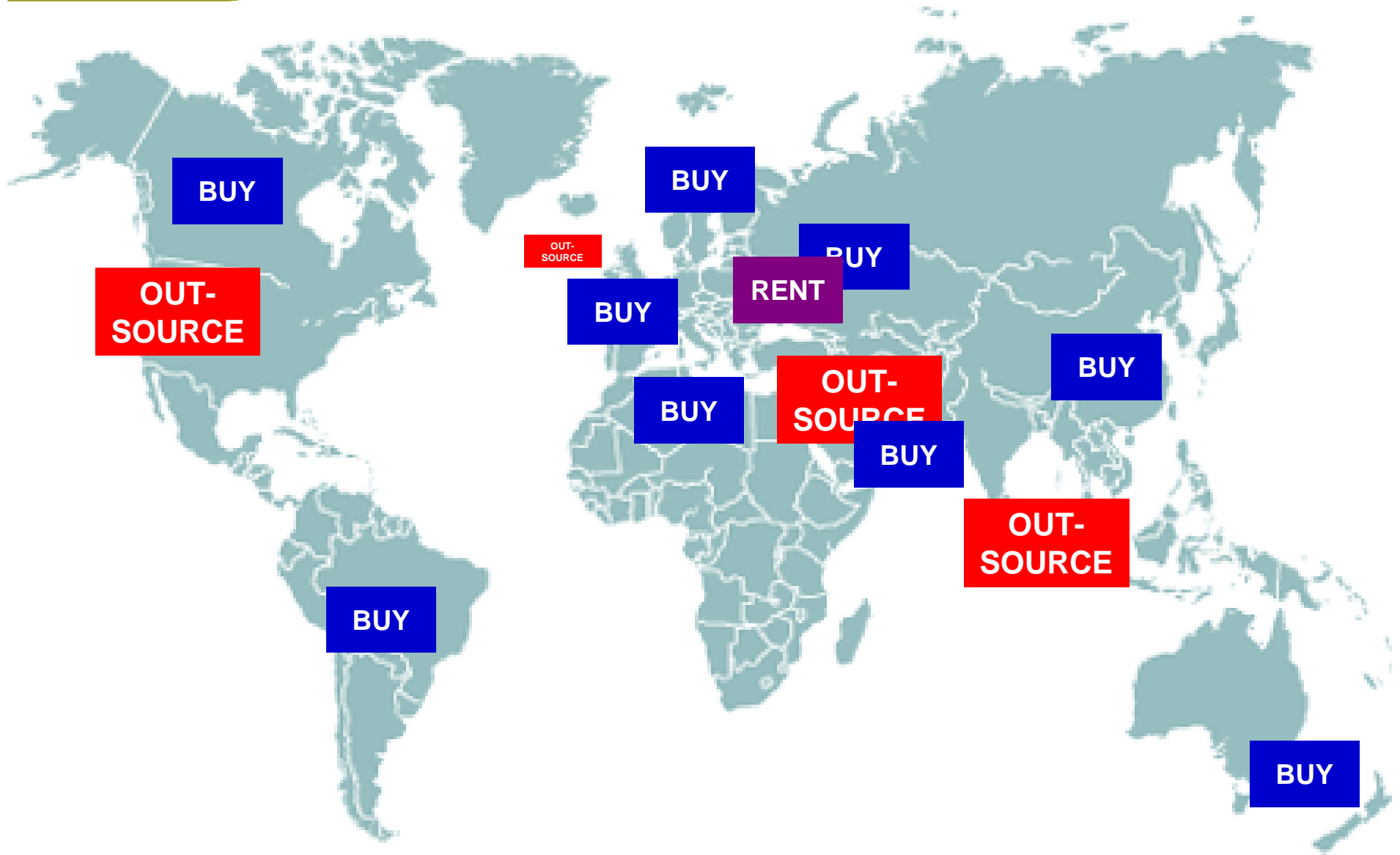
Sensys Traffic
endless
possibilities...

Procurement models

- » **There are different procurement models for enforcement systems depending on**
 - **Financial status of the country**
 - **Culture in the country**
 - **Government vs private**
- » **The procurement model will most likely impact the ability to reach target on reduction of fatalities**

Procurement models





Outsourcing model



Outsourcing strategy

» If outsourcing is used

- Reduce goal conflict risk by specifying rules clearly
- Define violations clearly
- Define quality measures in contract to follow-up
- Define termination clause in contract for both parties
- Require signs before enforcement cameras

» Alternative, combined revenue model

- Fixed monthly fee to cover equipment cost over 2,3 or 5 years
- Processing efficiency dependent fee, to cover operational cost
- Performance based upside fee based on performance against target, eg. reduced average speed
- Percentage of violation fees

} Balance

» Alternative, rental/lease contract or service contract

Example of rules that need to be specified clearly

» Speed

- How much above speed limit is enforceable?
- Where to locate cameras?

» Red light - evidence

- Grace time?
- Location of car in first picture?
- Location of car in second picture?
- Right turn on red?

Example Redlight Enforcement

Date	Time	Sitecode
2008-11-20	22:04:23.5	JED008
Radar ID	Speed	Sign S
9F96EC0E0000	29.0 km/h	70 km/h



Conclusion

Sensys Traffic
endless
possibilities...

Conclusion

- » **Automatic enforcement is a very effective traffic safety measure**
- » **Supportive strategy is most likely more effective**
- » **Buy or rent/lease equipment**
- » **Avoid outsourcing model if traffic safety is main priority**
- » **If outsourcing is used and traffic safety is still main objective**
 - **Use alternative revenue models**
 - **Define rules and payment criteria very clear in contract**
 - **Require signs before cameras**
 - **Include an escape clause in the contract**
- » **Specify legal security to insure proper technology**

SENSYS

Thank you!

Sensys Traffic
endless
possibilities...

Email: johan.frilund@sensys.se

Mobile: +46 732 742 823