

**Operations and  
maintenance**

**Swedish Transport  
Administration**

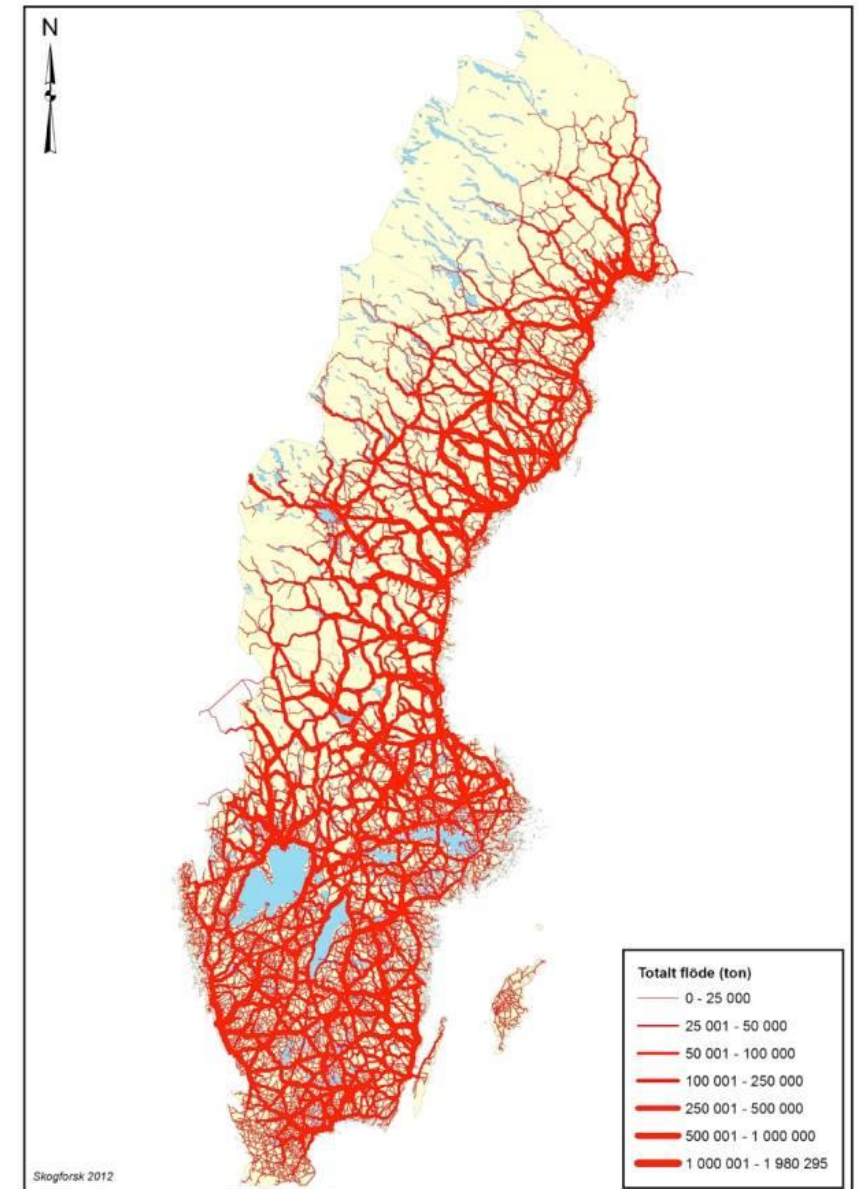
**Björn Eklund  
Head of project  
development**



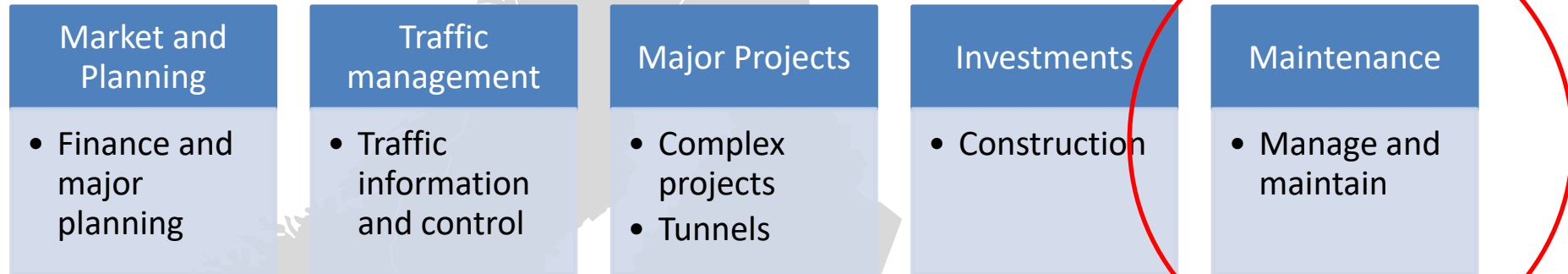
**TRAFIKVERKET**

# Swedish road system and managers

- State-owned roads 100.000km  
Swedish transport administration manage and maintain
- Private association-owned roads 74.000km  
STA are advising in choice of action  
Important roadsystem to keep the country available
- Municipality roads 42.000km



## Swedish transport administration **STA**



## Maintenance

- Manage and maintain



## Electric infrastructure

- Fans and climate systems
- ITS
- Lightspot



## Pavement

- Planned major repairs



## Bridges/tunnels

- Annual inspections
- Reinvestments



## Operations

- 24/7
- Winter
- Summer

# History STA

## outsourcing road maintenance and operations

- 1992, Swedish Road Administration split up into two business areas
- 25 Districts and 140 maintenance areas with their own road standard requirements
- Today 6 district and 110 contract for operations and maintenance
- National standard



# Performance base contract for operations

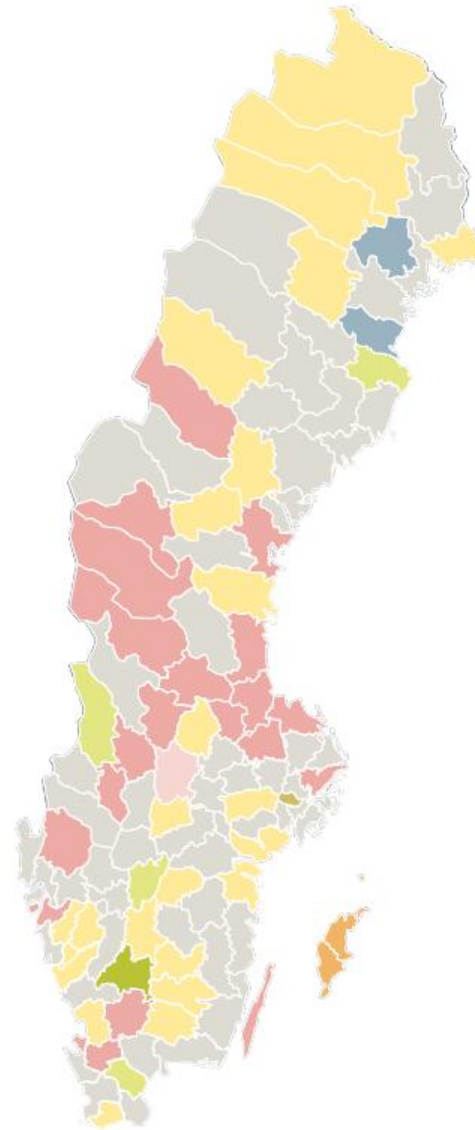
- Contract length 4+2 year
- Performance based. Contractor takes full responsibility
- Contractors verified quality assurance
- Combined with third part testings



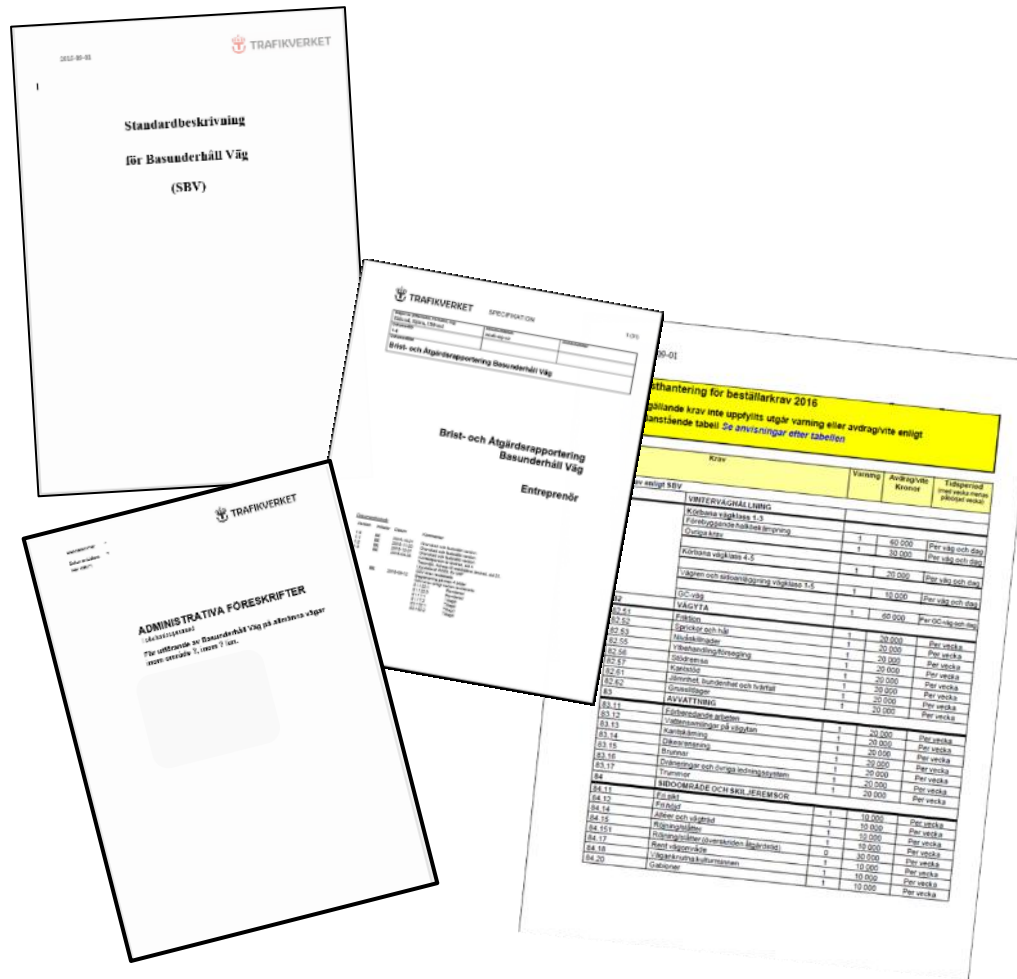
# Market 2018

## 110 Contracts

- Green Landscaping AB
- BDX Företagen AB
- Mesta
- NCC
- Nybergs Entreprenad
- PEAB
- Sandahls
- Skanska
- Svevia



# STA interaction with the contractor

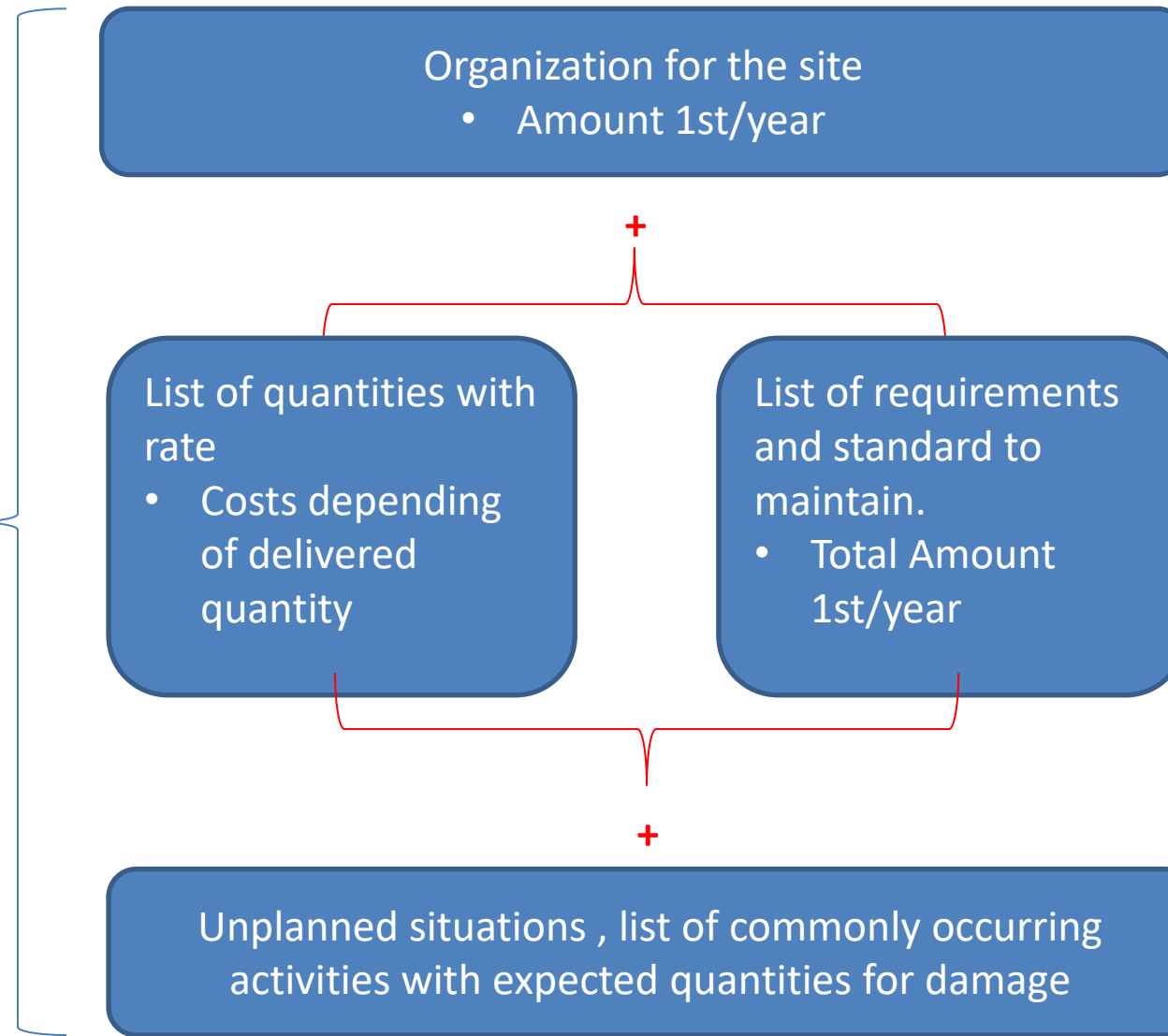


- ### Roadstandard requirement
- Describe minimum standard
  - Requirement for deviations
  - Requirement for maximum time to take action
  - Performance based



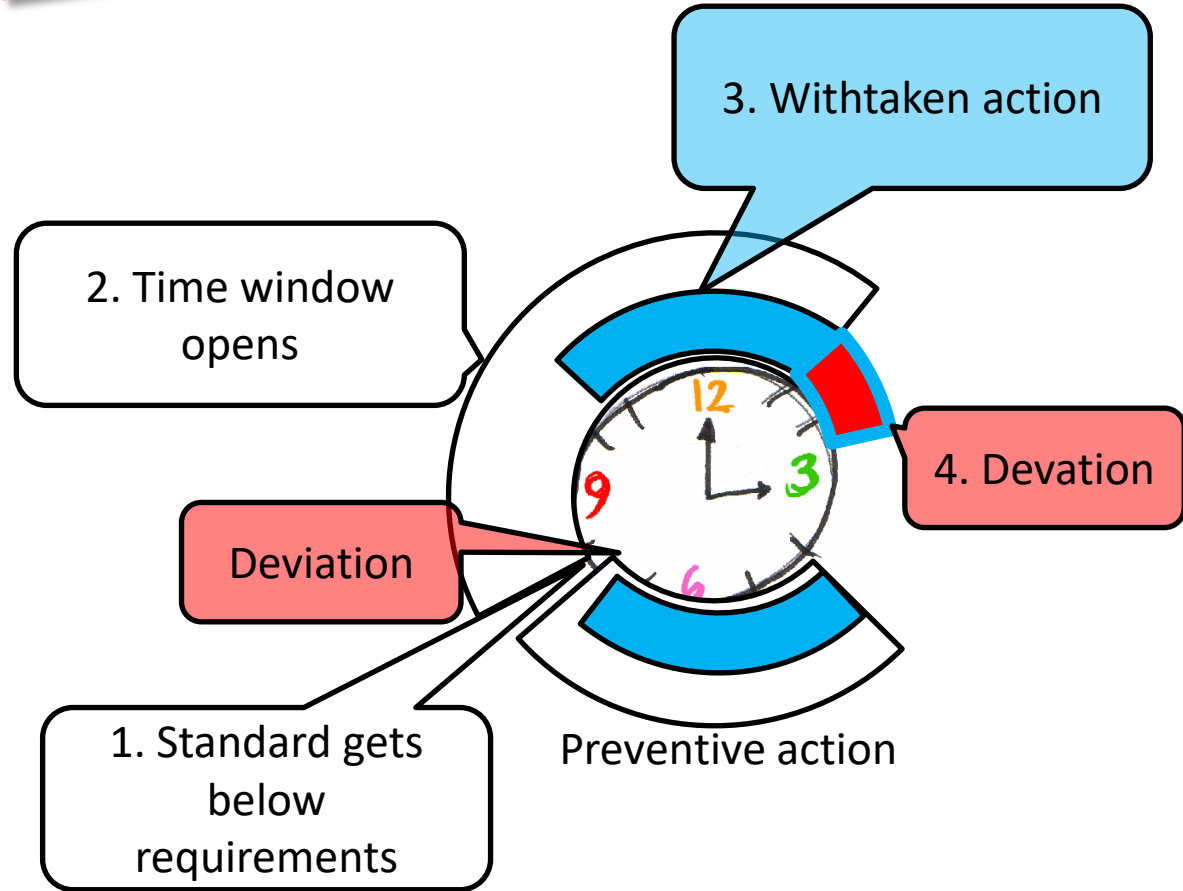
# The business model

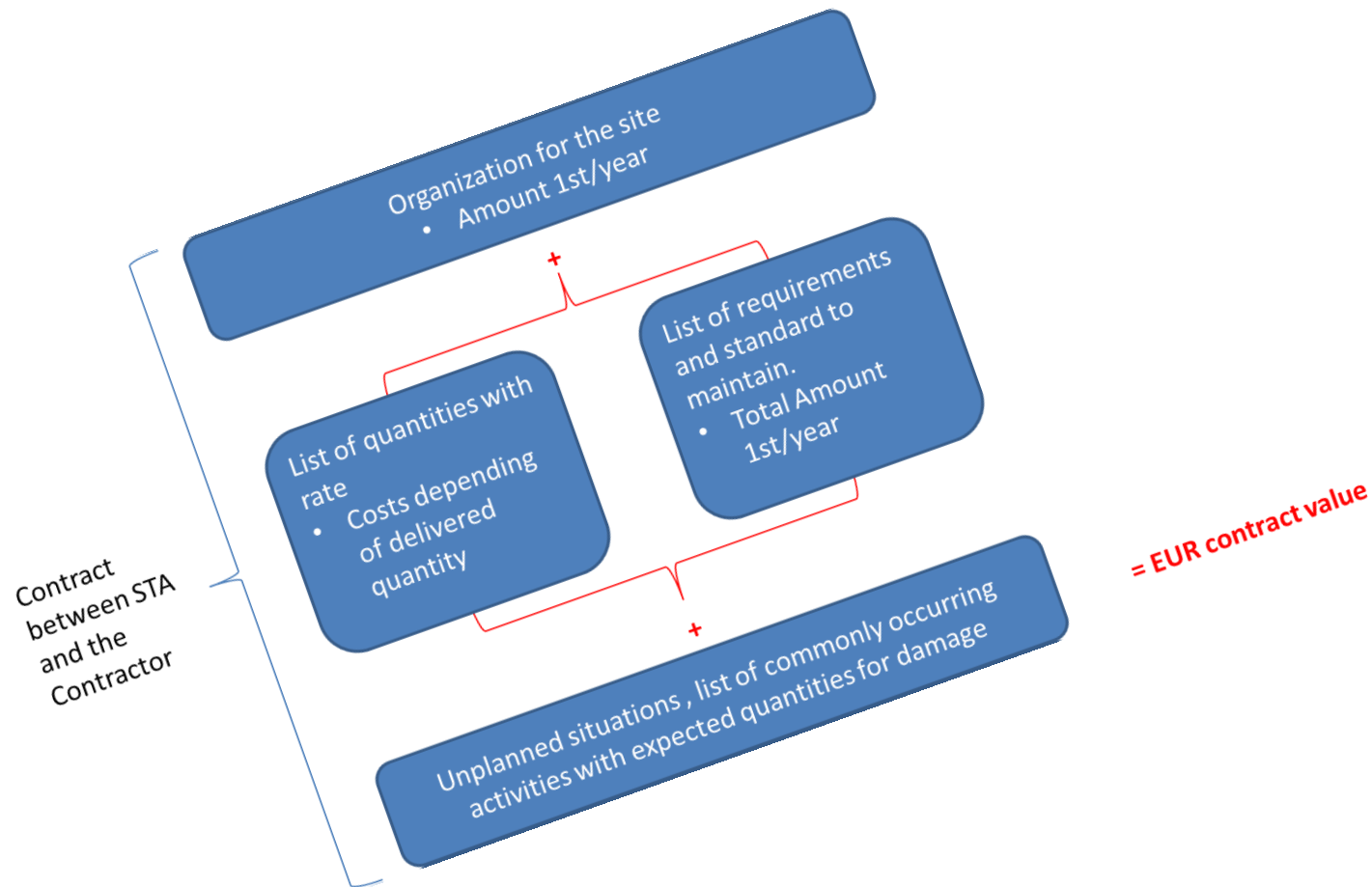
Contract  
between STA  
and the  
Contractor



= EUR contract value

# Requirement





## Whats' included?

1. Organization
2. Maintain surface paved road
3. Growel road
4. Vegetation
5. Roadside space
6. Road equipment
7. Winter
8. Other work included in the contract after ordering

# 1. Organisation

- Site
- Staff, machines, equipment, material, technical IT systems eg.
- Required permissions eg.
- Covering booth summer and winter



Contract	Model for paying
Described minimum amount of people and skills	Fixed amount, 1st/year
Available material/equipment to use	-"-
Inspection of the roads each day	-"-
24/7 standby	-"-

## 2. Maintain surface (paved road)

- Cracks and holes
- Water escape and ditches
- Friction
- Support strip
- Culverts and pipes
- Some smaller pave actions



Contract	Model for paying
Described minimum standard	Fixed amount for work
Material, ton	Payed after accounting

### 3. Growel road

- Surface level
- Bounded surface
- Crowning
- Ditches
- Pipes



Contract	Model for paying
Describes minimum standard	Fixed amount/year

## 4. Vegetation

- Free sight and minimum height
- Roadside vegetation
- Cutting grass
- Protected interests



Contract	Model for paying
Describes minimum standard and due dates	Fixed amount/year

# 5. Roadside space

- Rest- and picnic areas with toilets
- Traffic control space for eg. Police
- Busstop with weather shield
- Parking for urban traffic commuting



Contract	Model for paying
Describes minimum standard and due dates/hours	Fixed amount/year





# 6. Road equipment

- Crash barrier
- Animal fence
- Noise fence
- Shield for dazzling light
- Roadsigns
- Guide sticks
- Constructions for protect water



Contract	Model for paying
Describes minimum standard	Fixed price/year
Traffic accidents	Payed after accounting

# 7. Winter maintenance

- Plowing
- Deicing
- Iceripping
- Snow transportation
- Ice-melting pipes



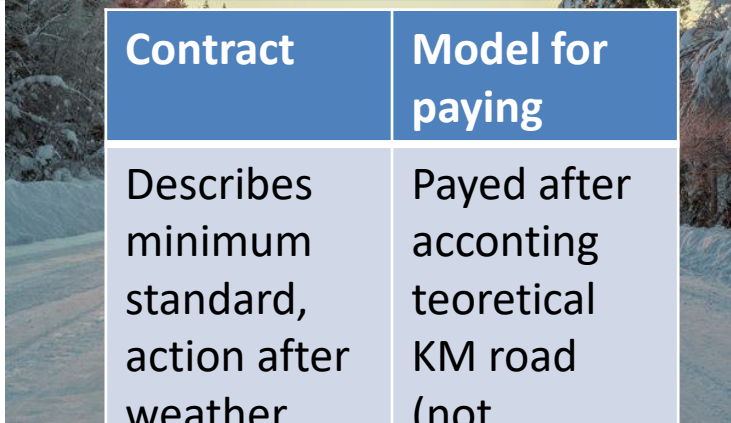
# 7. Winter maintenance

## 5+2 Types of standard

	Class 1	Class 2	Class 3	Class 4	Class 5	Bicycle High	Bicycle Normal
Vehicle/day	>16.000	8.000-16.000	1.500-8.000	500-1.500	0-500		



Contract	Model for paying
Describes minimum standard	Fixed amount for each type of weather. From our road weather datasystem
Salt	-"-



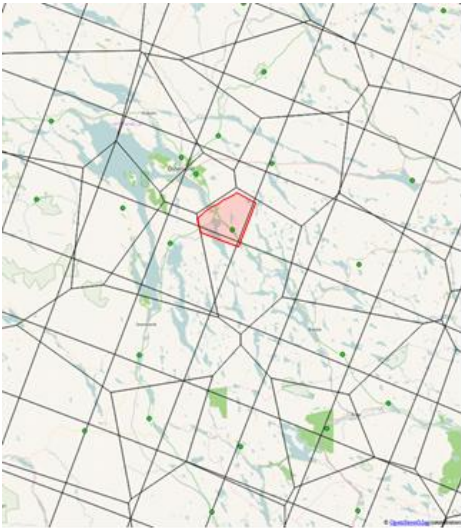
Contract	Model for paying
Describes minimum standard, action after weather condition	Payed after accounting teoretical KM road (not taxameter)
Material, sand	-"-

## 8. Other work included in the contract after ordering

- Change pipes
- Fish and fauna obstacle
- Bärlager
- Pavement
- New roadsigns
- Crash damage



Contract	Model for paying
List of common quantities with rate	Payed after accounting



Thank you for your attention!



Björn Eklund  
STA

