



New road maintenance contract model

Magnus Nygård

13.2.2020

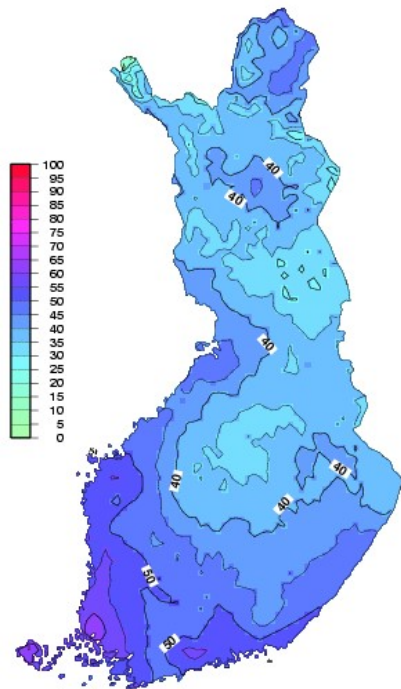


Climate has changed

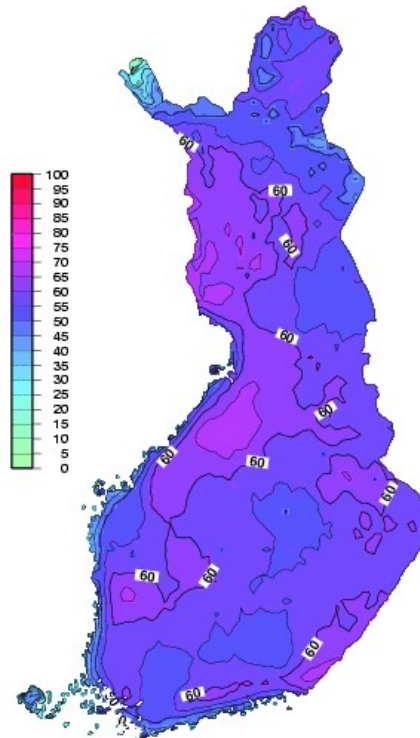
Climate change

(Temperature under 0 °C/times per year)

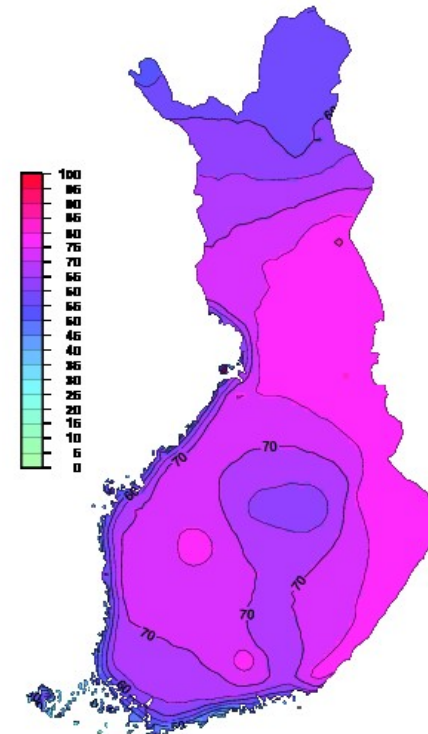
Winter 05 - 06
(”good old winter”)



Winter 06 - 07
(mild winter)



Winter 14 - 15
(very mild winter)



Demanding winter conditions winter 2017-2018

- Weather conditions have been exceptionally difficult for road maintenance and traffic.
- Substantial amount of negative feedback from different stakeholders and citizens.
- Criticism on conditions and quality requirements, but also on contracting methods and quality control.
- Social media is quick and effective to raise up issues widely.
- **The situation was not acceptable. We had to develop winter maintenance**

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Headlines:
"Magnificent ice skating march".

Pääkirjoitus

Mahtava luistelumarssi

Vieremäläisten Ahti-Pekka Vornasen ja Lasin Heiskasen luistelutempaus Kauppinmäntien varrella on saanut huimat mittasuhteet. Maanviljelijöiden tarkoituksena oli kiinnittää huomio tien kunnossapitoon, ja idea todellakin onnistui. Videota on katseltu eri kanavissa jo hyllypeasti yli miljoona kertaa (Savon Sanomien verkkosivut 16.1.).

MTV:n Huomenna Suomessa mielenilmausta tituleerattiin jo "luistelumarssiksi".

Tempaus oli Vornasen mukaan spontaani, mutta siinä osui kaikki kohdalleen Heiskasen karvahuutua myöten.

MTV:n haastattelussa kävi hyvin ilmi, mistä on kyse. Vika ei ole yksittäisten urakoitsijoiden, vaan koko tienpidon periaatteissa on korjattavaa. Kun ehyyskeskuksen kunnossapitopaällikkö Pekka Rajala totesi, että tienhoitolaajan mukaiset laatuvaatimukset



ANNI NIEMINEN

set täytyvät, ei vastaukseen tarvitse eikä pidä tyytyä.

Vornasen mukaan tilanne on huonontunut kymmenen viime vuoden aikana. Ongelmana on esimerkiksi se, että lumenpoistoa ei aloiteta aikanaan. Kyse ei ole välttämättä edes rahasta.

"Sen pitää olla jossakin muualla kuin konttorissa, joka päättää milloin lähdetään hiekoittamaan ja auroamaan", vieremäläiset tiivistivät. Liikennevirasto on muuttamassa tien kunnossapidon

urakointiperiaatteita. Pohjois-Savon ehyyskeskuksen Liikenne- ja infrastruktuuri-vastuualueen johtaja Tommi Huttunen on kertonut, että urakointiin toivotaan enemmän valinnanvapautta. Aura-auto voisi uuden ajattelun mukaisesti lähteä liikkeelle jo ennen kuin urakassa mainittu lumen vähimmäismäärä olisi täynnä. Kuulostaa järkevältä. Tien päällä on varmasti paras tieto.

Anni Nieminen

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"Vika ei ole yksittäisten urakoitsijoiden."

Develop programme of winter maintenance

Minister Berner 15th February 2018



- **Updating guidelines for winter maintenance during spring**
 - criteria for maintenance classes
 - quality requirements
 - regain times
 - targeted maintenance
- **Continuous development of digitalisation and utilising it**
 - weather forecasts and information
 - analysis
 - implementing trials
 - quality control
- **New contract model to contracts starting year 2019**
 - **co-operation**
 - **reaction ability**
 - **target price**
- **More effective information**
 - active, proactive
 - timely
 - based on facts

A yellow road maintenance truck is driving on a snowy road, leaving a trail of snow behind it. The background shows a dense forest of snow-covered trees. The truck has "8m" written on its side.

New road maintenance contract model starting 1.10.2019
– **Roads daily maintenance contract**

Basis for the development of the new contract model

Currently widely used area contract model has been developed in the early 2000 –decade when the contracting of roads daily maintenance was being procured from market (earlier in-house)

- During the years the share of subcontracting has increased, being up to 90 %
- Fixed price - for the major part of the contract

The new Roads daily maintenance contract

- Development started in year 2012
- Pilot contracts starting year 2014:
 - Espoo daily maintenance management contract 2014 - 2019 approx. 30 Milj euro
 - Raasepori daily maintenance management contract 2016 – 2021 approx. 14 Milj euro
 - Lahti daily maintenance management contract 2017 – 2022 approx. 20 Milj euro
- 17 contracts with the new model started 1.10.2019
- 13 contracts have been procured to start 1.10.2020
- Totally 79 contract areas on national roads daily maintenance

Main features on the roads daily maintenance contracts

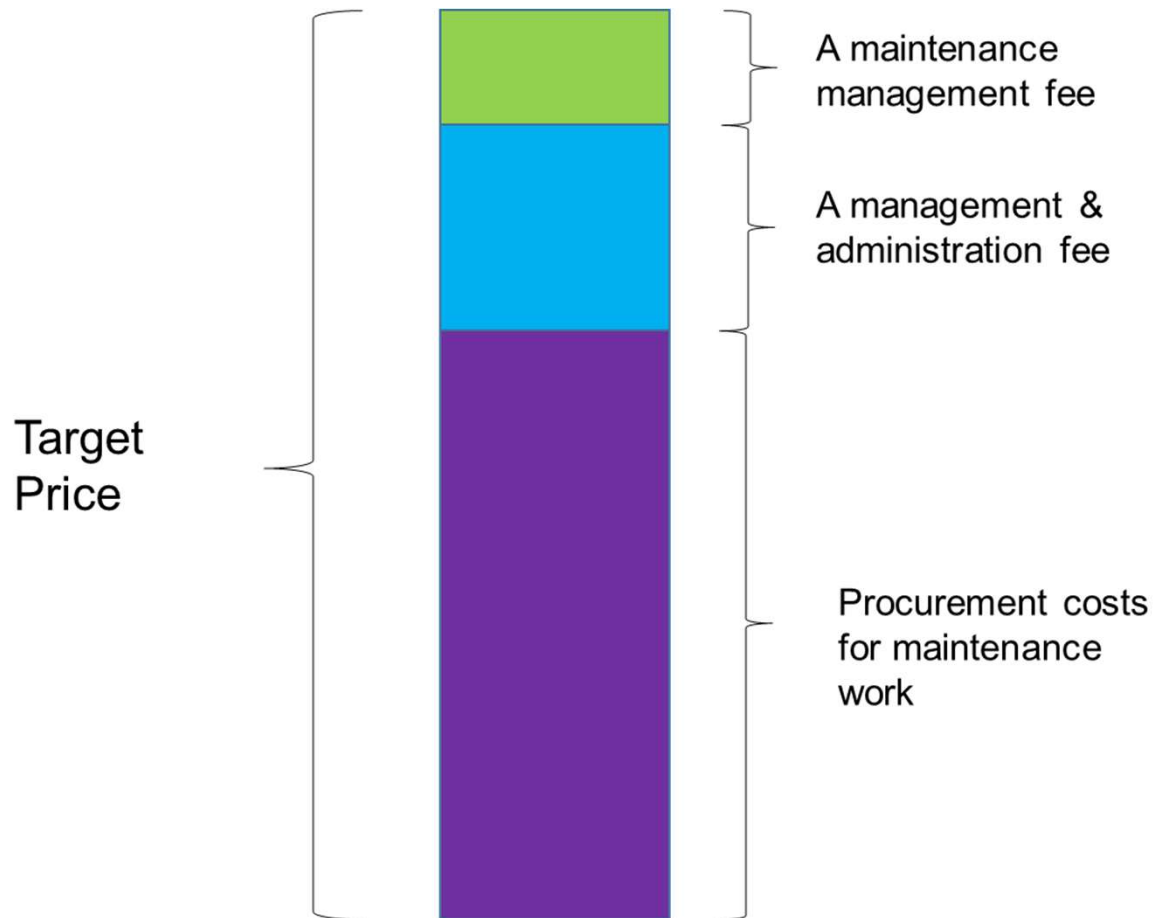
- The model has been developed using experiences and characteristics of construction management, alliancing contracts and the current area contract contracts.
- Road users and road users' service are the core objective for the development. The new model enhances the cooperation with the client and the contractor.
- Objectives include among others:
 - Minimising waste* in the processes and ability for quicker adjustment when changes in operational environment
 - Risk management and appropriate risk allocation in the contracting chain
 - Development of know-how of client, contractor and subcontractors, cooperation between actors, processes, safety and tools
 - Generating the information of quality during the operations – not separately, afterwards
- To promote innovation and development work
- **People will be decisive the success.** Personnel organizing and leading the work are the core of the contract. Their know-how and the skills to produce the service are crucial for the success of the contract.

*"waste" (*Lean = non value-adding activities, waiting etc.*)

Objectives, awarding criteria and contract bonuses

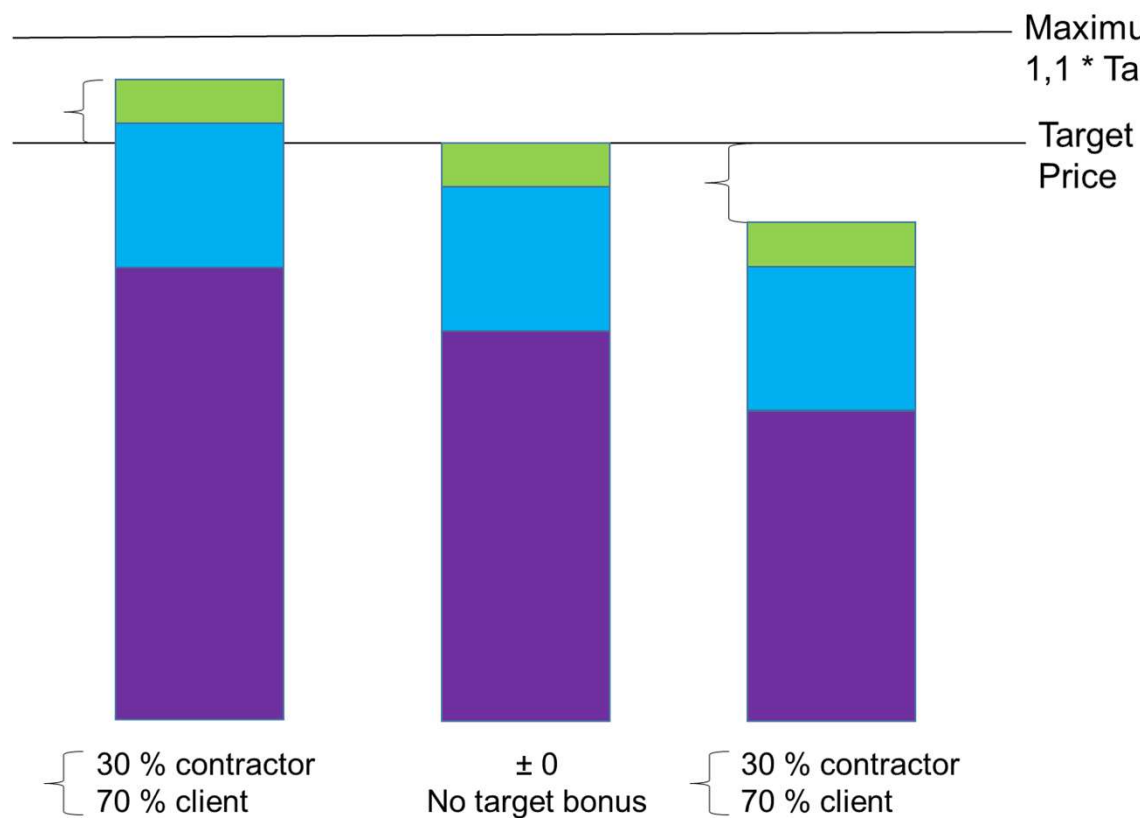
OBJECTIVE OF CONTRACT	AWARDING CRITERIA	CONTRACT BONUSES
Cost efficiency	<u>Weight 65 %</u> Costs of procurements Fee Management and administration cost	Target price
Developing of productivity, cooperation, quality, safety and customer-orientation	<u>Weight 20 %</u> Promises on means Promises on results and effects	Bonuses and sanctions
Ensuring the know-how	<u>Weight 15 %</u> Test results (abilities to organise and service provision) Test results (Exam of experts)	

Payment mechanism



- Target price consist of
 - Fee
 - Management and administration fee
 - Costs of procurements (subcontracting etc.)
- Payment is based on the work done
- Subcontracts pricing can be different, for example fixed price

Target price – distribution of the “pain or gain” share



- Achieving the result under the target price provide target bonuses:
 - 30 % contractor
 - 70 % client
- Possible “over-running” the target price is divided similarly
- Tavoitehinnan ylitys jaetaan vastaavasti
- Maximum price = 1,1 * target price

Contractor's Payment Mechanism



- The fixed management fee includes overhead costs, risks and profit margin.
- The management and administrative costs includes the contract management administrative costs, office costs and information technology costs.
- The procurement costs include all related purchases, like all related sub-contracting, service contracts, and construction and maintenance services.
- The Guaranteed Maximum Price (GMP) is 10% above Target Price.



The market situation on roads daily maintenance

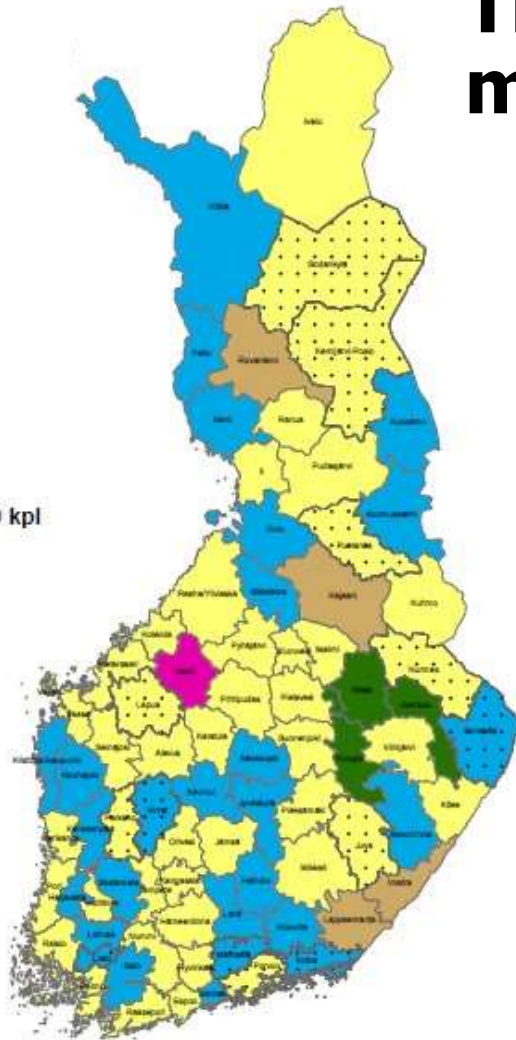


Contract areas
and contractors
1.10.2019 –
1.10.2020

Urakoitsija

- Destia Oy 44kpl
- YIT Suomi Oy 27kpl
- NCC Suomi Oy 4kpl
- Savon Kuljetus Oy 9kpl
- Tapio Pahlakangas Oy 1kpl
- 2020 kilpailutettavat urakat

Urakoita yhteensä 79 kpl

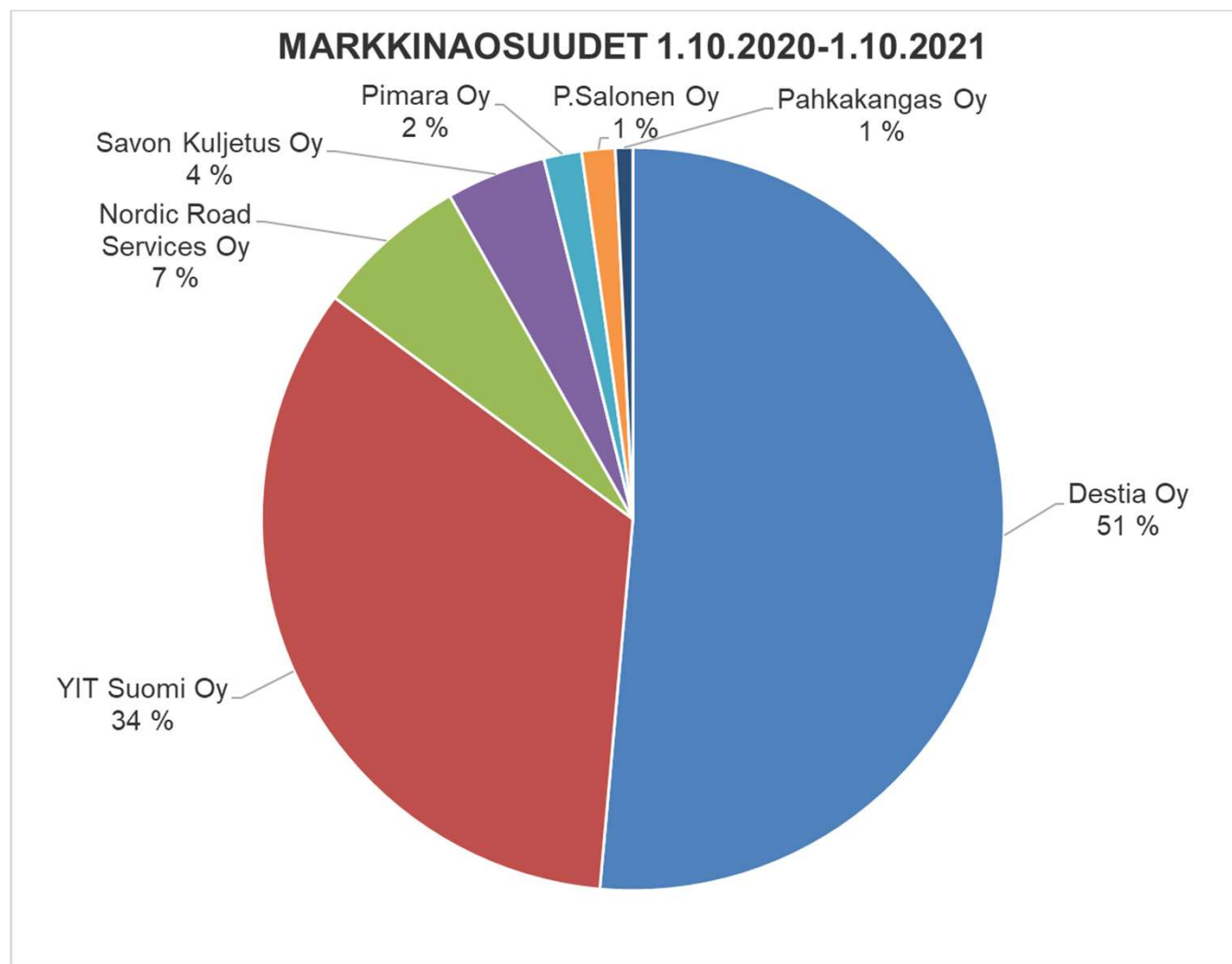


The new roads daily maintenance contract in brief



- The new Roads daily maintenance contract will be taken into use in all the areas
- Content of the maintenance work similar than before
- More even distribution of risks: client pays the cost on the work done
- Open books – principal
- Better ability to react on changes
- More weight on quality – especially during the bidding process
- Concentrating on the issues that are most important
- More cooperation
- **For the the best service for road users**

The contractors' market shares



Experiences of the bidding process

- 13 roads daily maintenance contract are procured to start on 1.10.2020
- Willingness to make a bid has increased:
 - 2 – 6 tenders / contract area
 - On average 3,2 tenders / contract area (year before 2,3 tenders)
- New tenderers, also new contractors
- Competition is deemed to be decent: the difference in the awarding criteria between the winning bid and the runner-up in average 4,7 %
- Cost level:
 - The prices approx. +2 % compared to the former contract type
 - However, under the client's cost estimation

Developing of roads daily maintenance market

1. Implementing The new roads daily maintenance contract:
 - Starting 1.1.2020 there will be 30 contracts out of 79 contracted with the new model
2. Client has made an enquiry and interviews with the potential actors
 - Companies active in the infrastructure area, but have not been in active in the bidding process
 - Construction management companies
3. Yearly and continuous discussions with the market to further develop the daily maintenance, and also to ensure that the market would be of interest



Finnish Transport Infrastructure Agency wants to promote well-functioning market

Customer satisfaction on the condition of roads

