

**The quest for sustainable public-private partnership**

# **Outsourcing of Haapavesi Waste Water Treatment Plant**

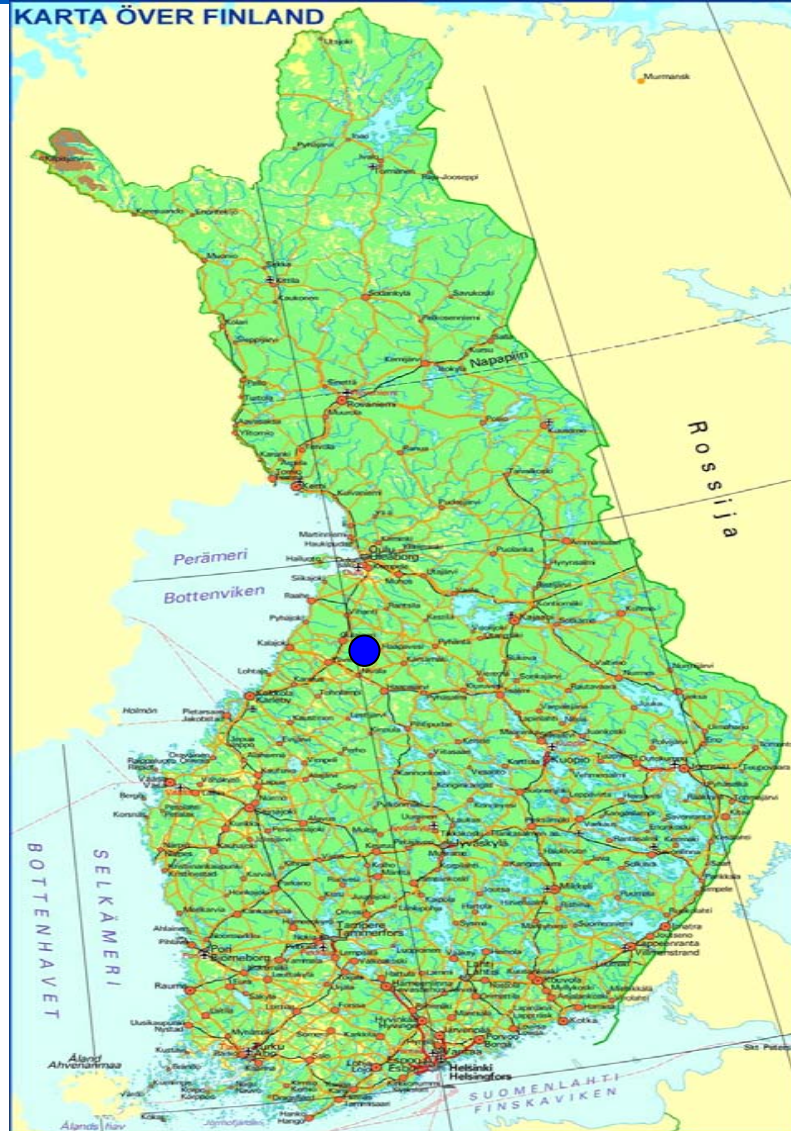
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## **Outsourcing Markets in Finland**

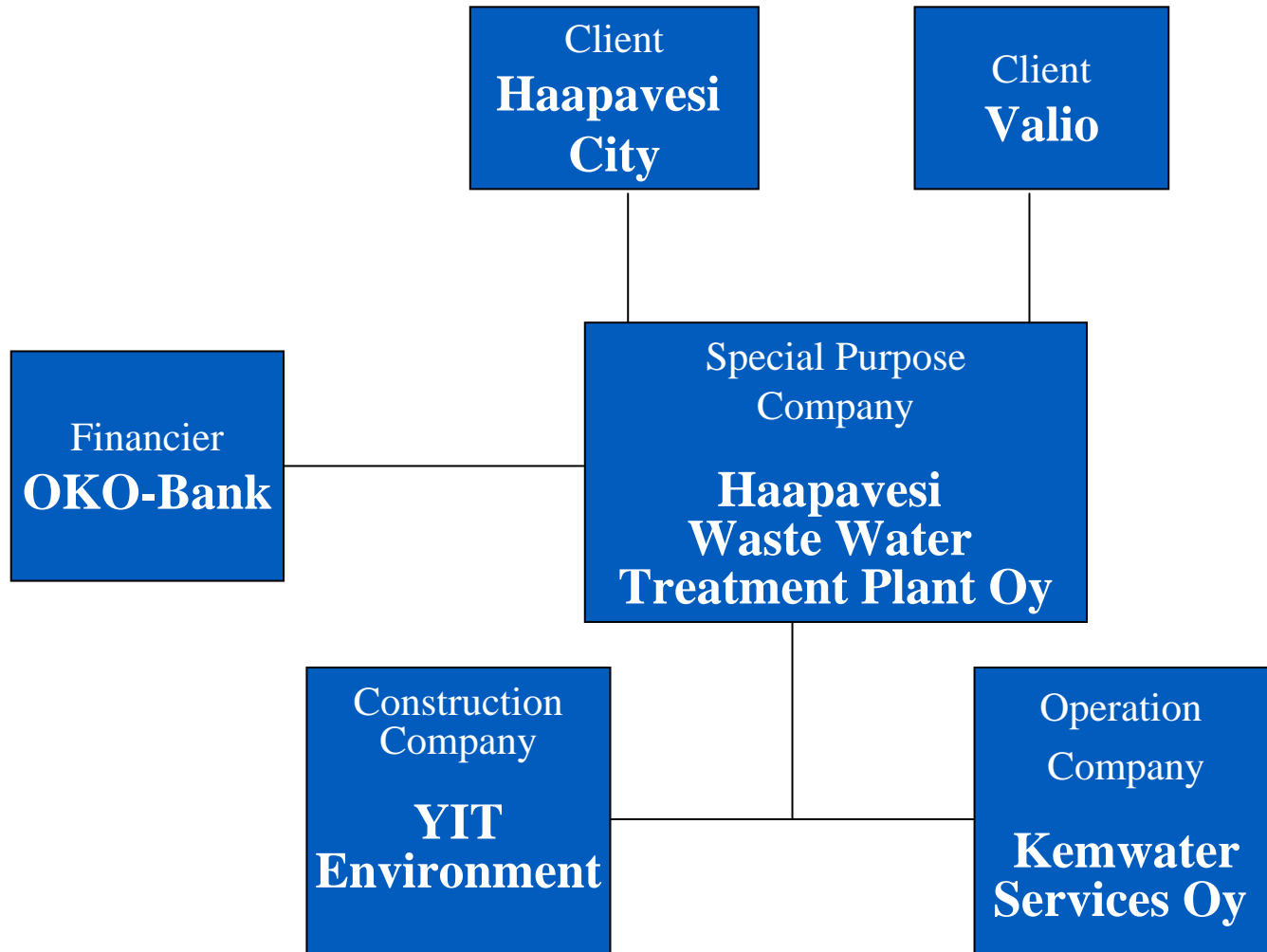
- **There are 600 domestic and 150 industrial waste water treatment plants in Finland**
- **400 plants are smaller than 2000 p.e.**
- **Operation costs are 200 million euro per annum**
- **About 1000 man-years are used for operation and maintenance, a lot of part time work**



# **Outsourcing of Waste Water Treatment in Haapavesi under BOOT-concept**

- **Tender competition including the renovation and operation for 12 years was organized by clients**
- **Competition was won by the consortium of Kemwater Services Oy and YIT Environment**
- **The first case in Finland, where operation of waste water treatment plant has been outsourced with private financing through competition**
- **Outsourcing is based on the goals of EU to open the public markets for competition**

## Service Contract Concept of Case Haapavesi



## **Service Contract (BOOT-contract)**

- **Outsourcing with private financing model**
- **Similar concept with the case of Southwest waster water treatment plant in St Petersburg**
- **Contract period 12 years**
- **Clients City of Haapavesi and ja Valio Company (p.e. 60000)**
- **For ownership a Special Purpose Company was established**
- **Kemwater Services is responsible for operation and maintenance, YIT Environment for renovation works (about 2 million euro)**

## Content of Service Contract

- **Clients pay monthly for service, responsibilities and risks related to operation and maintenance belong to the operator**
- **Monthly Fee is based on the influent load (Q, BOD, P,N, SS)**
- **Monthly Fee will be adjusted once a year according to changes of general price level**
- **Debt service of the loan and expenses of the Special Purpose Company are paid with a fixed monthly fee.**

## **Operation Principles of Kemwater Services Oy**

### **•Goals:**

- to achieve the best possible purification results**
- to do this in cost-effective way**
- to demonstrate that our operating model is superior**

### **•Means:**

- Knowledge and know how**
- Motivation and training of staff**
- Automation, remote steering and control**
- Innovation in processes and their monitoring**
- Outsourcing of supporting activities by competition**
- Operation at regional and country level - savings due to volume and synergy**
- Marketing and provision of services to neighboring clients**
- Active and open information to the public**

## Haapavesi Wastewater Treatment Plant



Biological pretreatment

Population Equivalent  
60000



Aeration tanks



Control room



Continuous sampling and analysis

### Purification Results 2003

BOD = 2,9 mg/l (99,6 %)

SS = 10,1 mg/l (96,9 %)

P = 0,68 mg/l (98,2%)

NH4 = 0,34 mg/l (99,6%)



## **Kemwater Services Oy**

- **Established in 2000**
- **Mission Statement: Operation and consulting services to municipalities and industry mainly in the Baltic Region**
- **Turn Over**                      **M euro**
  - **2000**                              **0,15**
  - **2001**                              **0,80**
  - **2002**                              **0,94**
  - **2003**                              **1,42**
  - **2004B**                            **2,5**
- **Main References:**
  - **Water and Sanitation Institutional Building in Kosovo**
  - **BOOT-contract with the City of Haapavesi and Valio about operation of waste water treatment plant**
  - **Operation contract with Nordic Aluminium**
  - **Operation and project management contract with the City of Haapavesi and Valio about sludge drying plant**