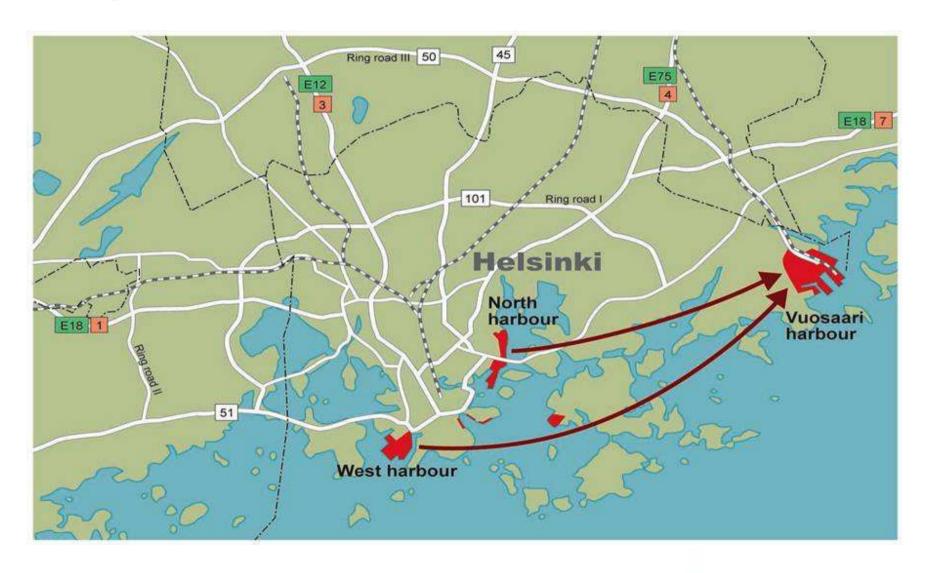
Vuosaari Harbour construction 2003 - 2008





Cargo Harbours moved to Vuosaari in 2008



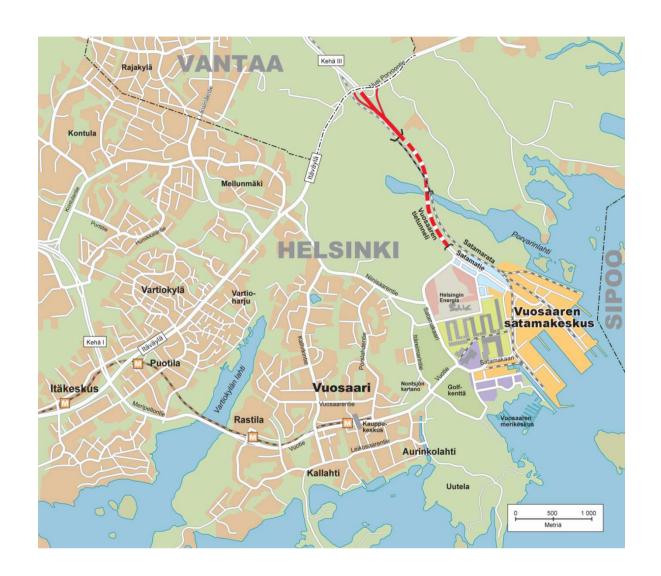


Starting Situation in 2002



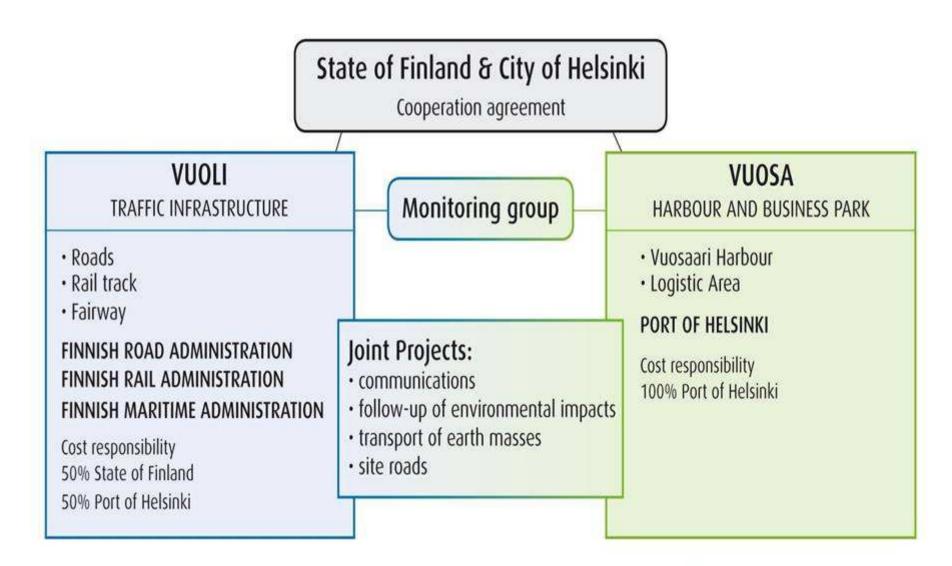


Vuosaari District



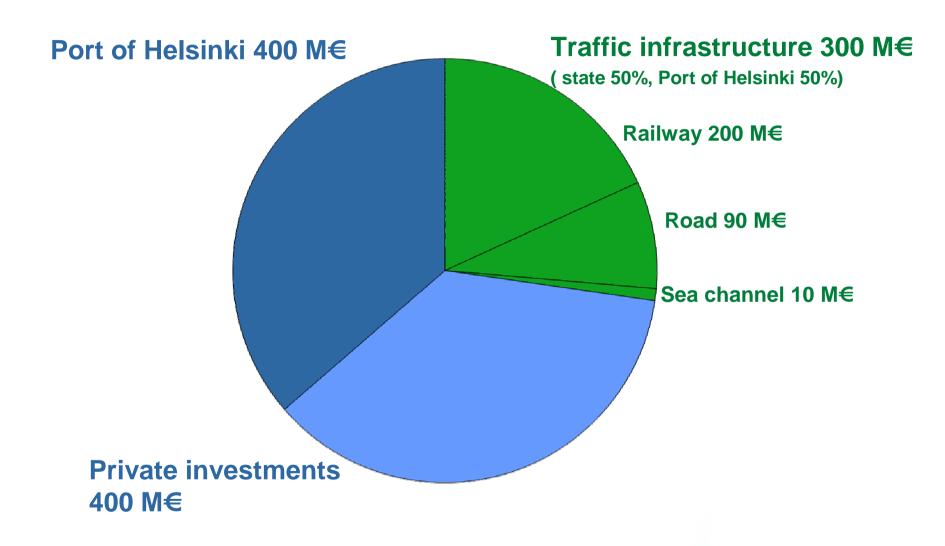


Project organisation





Costs 1100 milj.€





Work amounts in Vuosaari Harbour Centre (without traffic services)

Harbour centre area	240 hectares
• Filled sea area	90 hectares
• Logistics area	60 hectares
• Contracts (Port of Helsinki)	97 pcs
Contaminated material inland	150,000 m ³
• taken into final repository in Melumäki	127,000 m ³
Stabilized TBT sediment	400,000 m ³
Rock excavation	1,500,000 m ³
Filling alltogether	12,000,000 m ³
 of which marine sand approx. 	7,000,000 m ³
• Crushed rock material in harbour structures	5,000,000 tonnes



Work amounts in Vuosaari Harbour Centre (without traffic services)

2.

 Asphalt coating 	450,000 tonnes/ 150,000 ha
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Public utility wells	3,000 pcs
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 Optical fibre net 	work, cable length	45 km
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• Reinforced concrete	140,000 m ³
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• Cement (stabilized)	80,000 tonnes
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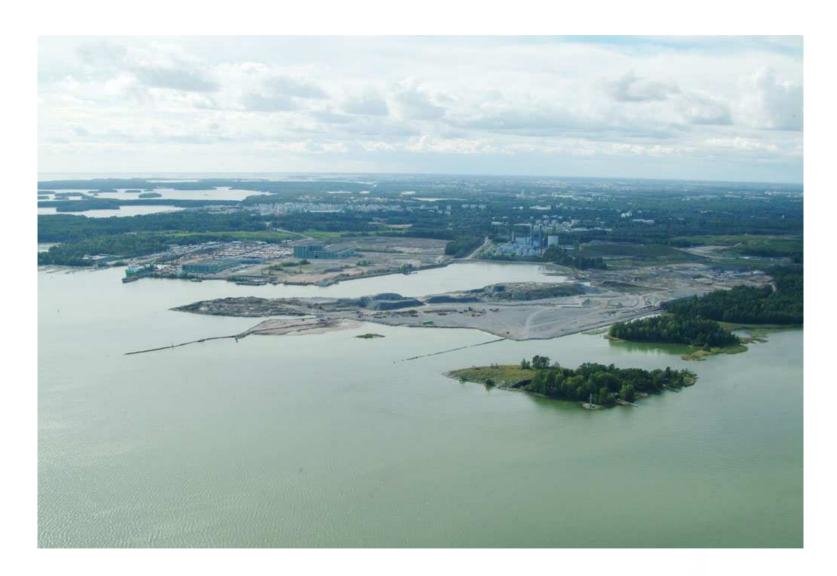
Removal of Tributyltin (TBT) in Seabed (2005)





















2007 March





2007 November





2008 October



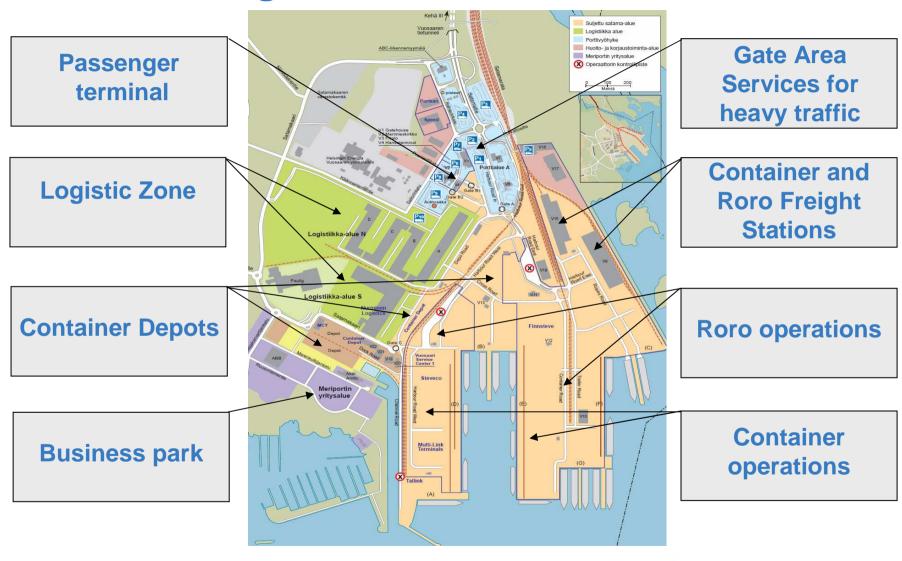


2008 November





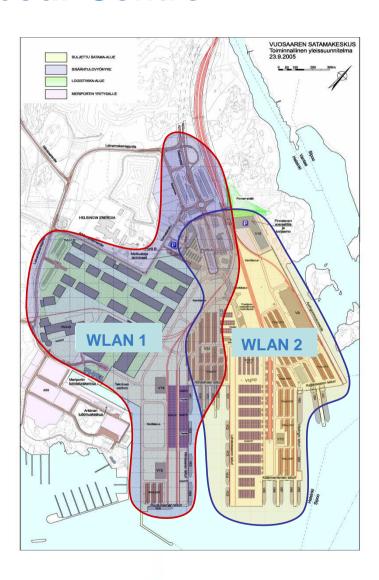
General arrangements





ICT infrastructure of the Harbour Centre

- Fibre and copper cabling covering in entire harbour area
- Wireless data network to be used by stevedoring equipment
- Camera system for security and operational monitoring
- Weatherstation
- Radiation control operated by customs





Environmental aspects

- Noise preventing
- Basin for leaking containers
- Closable rain water drains and odour elimination plant
- Sewage connections in each berths
- Facilities for connecting vessels to land power system
- Road and railway tunnels
- Illumination with minimal scattered luminance
- Environmental Monitoring:
 - monitoring surface and groundwater
 - monitoring waterways and fish
 - monitoring bird life
 - monitoring plant life
- High quality architecture
- Cleaning of former shipyard area





Harbour by Night

