



Hendrikson & Ko

**Challenges in addressing climate
change issues within impact
assessment practice of transport
projects in Estonia**

Heikki Kalle



Trivia for introduction

Transport induced changes in greenhouse gas emissions come from

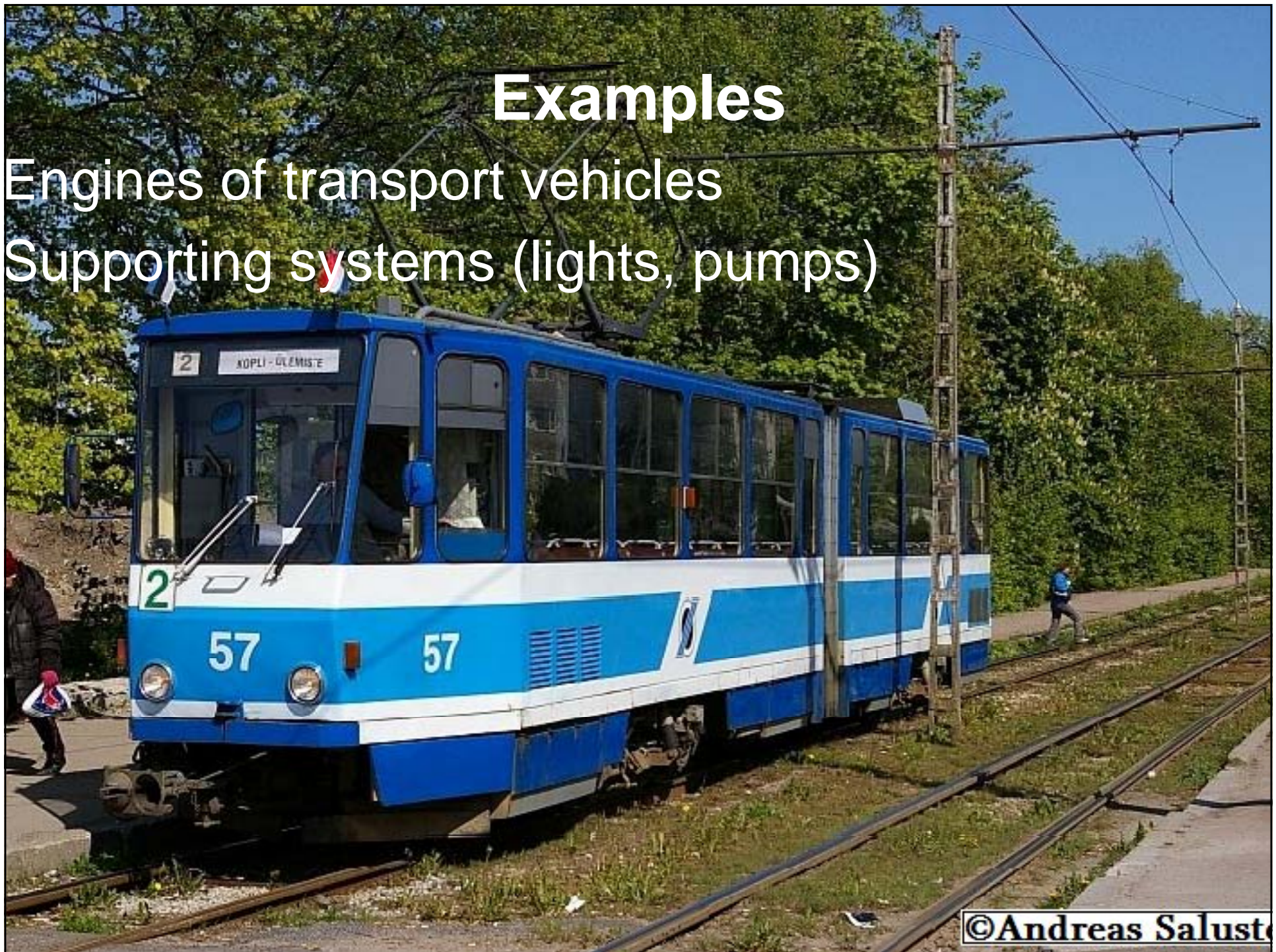
- Direct emissions by burning fuel**
- Indirect emissions from supporting infrastructure (construction, operation)**

Most of the supporting infrastructure and some of the vehicles use electricity

Examples

Engines of transport vehicles

Supporting systems (lights, pumps)



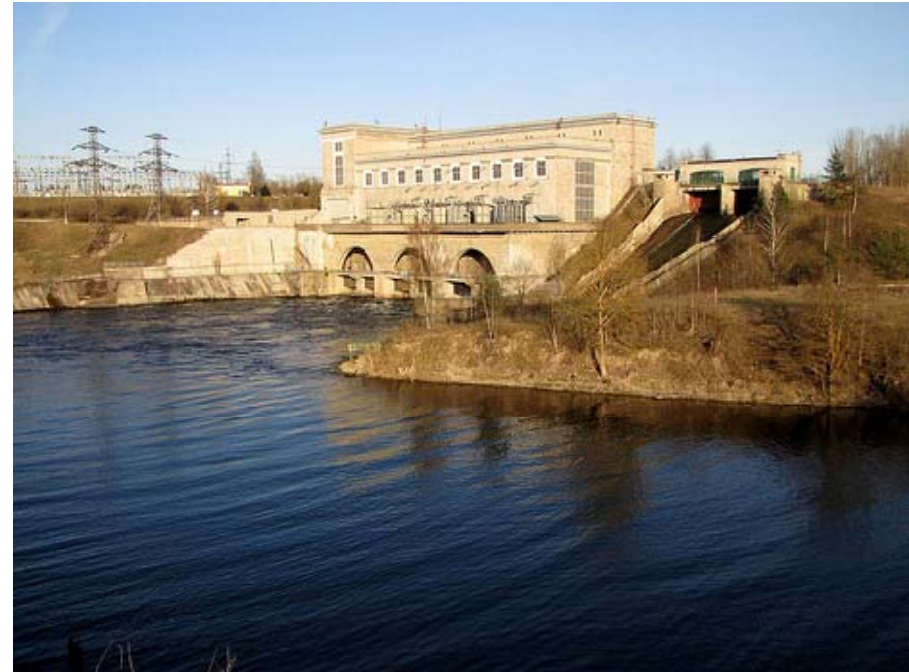
Challenges in SEA/EIA practice

Climate <> transport

“The higher you fly the fuzzier the picture gets”

Often modernisation has its social costs

Handbook on estimation of external cost in the transport sector. Internalisation Measures and Policies for All external Cost of Transport (IMPACT) CE, 2007



Handbook has been “translated” into Estonian context in 2008 but is difficult to apply as in strategic scale has to rely on firm energy production policy

How electricity is produced



Electricity production in future

National strategy

Nuclear power plant by 2023

25% of electricity from renewable sources by 2020 (waste incineration, water, wind)

Links to Finland and Sweden

Reduction of oil shale based energy production

However, uncertainty starts already from the strategy itself

14B EEK to new boilers in oil shale heated power plants

24B EEK to subsidies over 20 years of operation

Increase of oil shale production



Challenges in energy policy

- Alternative sources of power are not popular (wind and nuclear)
- Biomass energy needs proper resource mapping
- Waste management is experiencing important changes due to developments in segregation technologies
- Present energy production is related to the social problems in the Ida Viru region
 - rate of non-citizens is high,
 - high crime rate (second to capital region only)
 - unemployment rate is close to 18%



Solutions

- Problems are political rather than scientific needing therefore discussions in appropriate level.
- Actions should be carefully planned and executed.
- Comprehensive approach with public debate.

With transport infrastructure plans and projects different scenarios are often debated in relation to energy sources.

THANK YOU!

