

**HIGH REDUCTION POTENTIAL**

# Travelling and transportation

## The realisation of emission reductions in procurements is affected by

- Travel options and fleet emissions/motive power solutions related to the transport procurement category
- Low-carbon options for procurement and low-carbon solutions and procurement models on the market
- Existing criteria, tools and means to determine and verify low-carbon solutions
- The know-how of the procurer as well as other existing objectives and boundary conditions of the procurement

Construction site activities are estimated to generate 5% of the total carbon footprint of the built environment, while construction accounts for 25% of total public procurement emissions. Approximately 25% of traffic emissions are generated as a result of construction sites. The main source of emissions is the use of fossil machinery and transport equipment.

## Travel and transport emissions

Approximately 11% of total emissions from public procurement are caused by travel and transport emissions. Emissions from the procurement of travel and transport equipment mainly consist of emissions from the manufacture and transport of equipment. However, the procurement of means of transport accounts for only 3% of the emissions from travel and transport in public procurement. By far the largest emissions come from the procurement of travel and transportation services, which result in 62% of travel and transportation emissions. Also, emissions from the procurement of fuels and lubricants are significant, accounting for approximately 34% of the total emissions from travel and transportation.

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## Examples of low-carbon solutions for travel and transport services and construction site operations

- There are low-emission alternatives on the market, allowing direct access to clean technology
  - » [Turku all-electric bus example](#)
  - » [HSL all-electric bus example](#)
- The lowest emission level can be scored in competitive tendering ☑ to encourage the operator to use low-emission motive power solutions
  - » [Example of HSL](#)
- Usage changes take place over a long period of time, but these can be influenced, for example, by designing attractive services (routes)
- Construction site operations can be acquired emission-free
  - » [The Green Deal commitment for emission-free construction sites](#)
  - » [In Oslo, all construction sites are fossil-free\(KlimaOslo, 2019\)](#)
- Lukutori in Espoo – emission-free construction site pilot
- Kuninkaantammi in Helsinki – fossil-free construction site as the criterion

# Emission reduction measures in procurement and their emission reduction potential\*

Decisions made on the procurement of travel and transport equipment affect emissions during use, so it makes sense to look at the product group from a life-cycle perspective. When emissions from the entire life cycle of travel and transport equipment are taken into account in the procurement, the emissions of fuels and lubricants can be affected. Although emissions of fuels and lubricants are significant, they are difficult to influence, unless these have already been taken into account when purchasing equipment.

For travel and transport service procurements, on the other hand, only emissions during the use of services can be directly examined, as equipment is not included in the procurement. When considering emissions during the use of services, it is worth noting that the low-carbon potential must also take into account the efficiency achieved by motive power.

Changes in travel and transport equipment will achieve faster impacts on the climate. A slower way to affect the climate is to increase the share of public transport by attracting private drivers to use public transport. The procurement of clean vehicles also involves legal obligations.

## Low-carbon potential of travel and transport equipment during their life cycle when comparing vehicles with different motive powers

- **Passenger cars 9–76%**
- **Buses 1–75%**
- **Trucks 24%**

## Effect of the motive power of travel and transport equipment on fuel emissions during use

- **Renewable electricity 100%**
- **Fossil electricity 2–14%**
- **Biodiesel 80–90%**
- **Biogas 68–81%**
- **Natural gas 26%**
- **LNG 90%**
- **LBG 20%**

## Usage changes

- **Remote working, cycling, walking, train, metro, tram 100%**
- **The low-carbon potential of road traffic is based on the motive power of travel and transport equipment**

## Construction site services

- **Fossil-free site – operations 90%**
- **Emission-free site – operations 100%**

\*The estimation of the emission reduction potential is based on individual case studies in which emission reductions indicated by percentages have been achieved for the measure in question. The percentages describe the difference to the alternative solution presented for the applicable life cycle stage(s), depending on the case. However, the amount of emission reductions depends on the entity, circumstances and starting data, so the percentages are only indicative and cannot be directly generalised or compared with each other. Source: Siiskonen et al. 2022.