

Use of EPDs at the Swedish Transport Administration



TRAFIKVERKET
SWEDISH TRANSPORT ADMINISTRATION

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Trafikverket – the Swedish Transport Administration

Our tasks

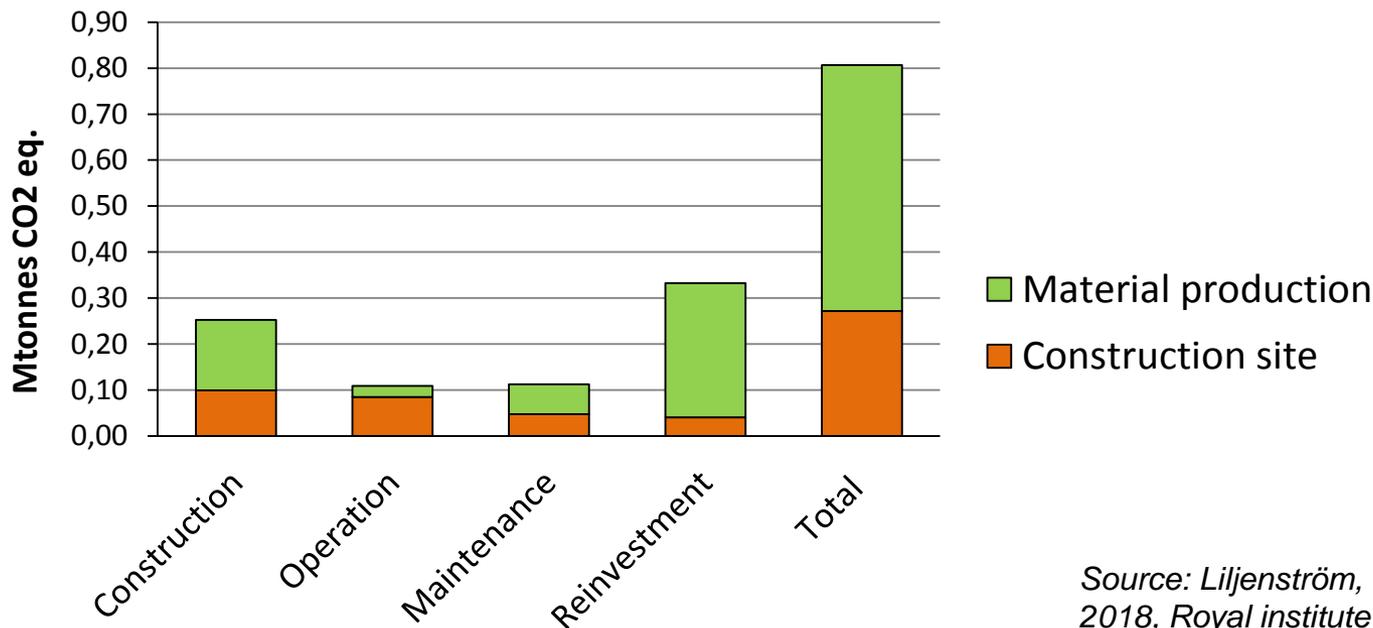
- To be responsible for the long-term planning of the transport system for road, rail, shipping and aviation.
- To be responsible for the construction, operation and maintenance of State owned roads and railways.



Our goal - A climate neutral infrastructure 2045

- Today: 3 Mtonnes CO2 eq. (building, use and maintenance, excl traffic)
- Applying a life cycle perspective is necessary - the goal cannot be met without decreased emissions from material production

Annual emissions, state owned roads:



Source: Liljenström, Toller, Åkerman and Björklund 2018, Royal institute of Technology (KTH)

From goals to action – climate requirements in procurements

- Climate performance in a life cycle perspective of all large projects is monitored
- For larger projects, a total decrease of greenhouse-gas emissions, compared to the predefined baseline, is required
- Performance of specific materials has to be demonstrated through EPD
- A bonus may be paid if GHG reductions are larger than required

Climate calculations

Climate declaration



Strategic planning



Planning phase



Design



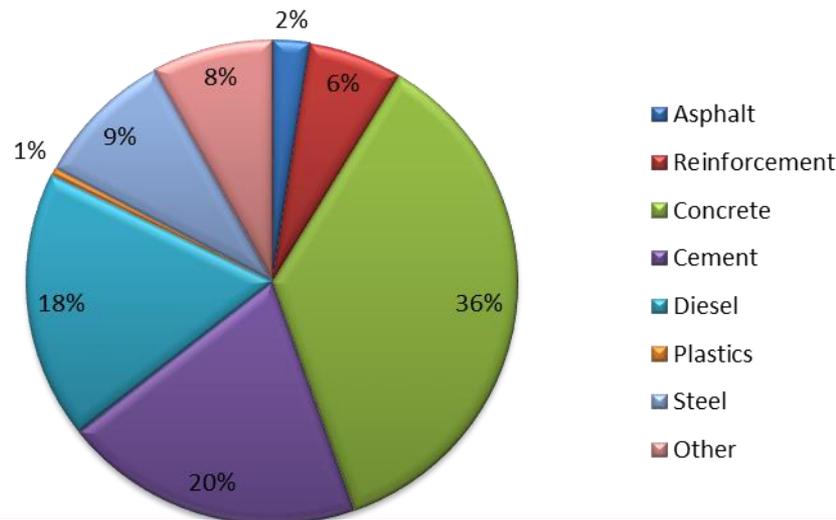
Construction

Reflections regarding the use of EPDs

- EPDs provide an important basis
 - Different materials are evaluated on the same basis
 - Requiring published EPDs is practically feasible
- Mostly positive response from contractors and suppliers
- Large scale EPDs, verification of tools and processes
- The standards are important – they need to be transparent, simple and robust, and last over time
- Quality and representativity of EPDs
- Practical issues – follow up procedure and reception of digital data

Example: Project procurement, E4 Stockholm bypass

- A new route for the European highway (E4) passing Stockholm
- 10% reduction of emissions were achieved:
 - Reduced amount of concrete and reinforcing bars
 - Reduced amount of diesel
 - Concrete with less emissions (verified through EPD)
 - Reinforcing bars with less emissions (verified through EPD)
 - Construction steel with less emissions (verified through EPD)



Example: Sleeper procurement

- Procurement covering 400 000 sleepers per year
- 20% reduction of emissions 2018-2022 was requested
- Result: Reduced CO2 emissions (26%) AND reduced costs (14%), full bonus was paid
- Two suppliers, EPD have now been produced to verify climate performance



Summary

- At the STA, we see EPDs as a possibility to declare, and follow up, environmental prestanda in a life cycle perspective
- Today, we require EPDs in our public procurements of road and railway projects, as a part of our efforts to meet climate goals
- Our experiences so far have been positive



Thank you for your attention!

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Further information (mainly in swedish):

<http://www.trafikverket.se/klimatkalkyl>

<http://www.trafikverket.se/for-dig-i-branschen/miljo/arbetsatt-och-metoder/Miljokonsekvensbeskrivning-och-miljobeskrivning/klimatkrav/>