

Do you want to contribute towards a more sustainable waste disposal by facilitate for sea transport of waste?

The Swedish National Road and Transport Research Institute (VTI) and SSPA are looking for master students that want to perform their master thesis within the recently started project "SHREK" (The role of Swedish ports in a circular economy). The project consists of research actors, representatives from the port industry (Port of Norrköping, Port of Halland, Port of Oslo) and representatives for the recycling industry (Avfall Sverige, Kretsslopp och Vatten and Ragn-Sells).

Background and purpose of SHREK

Increased demands for material recycling have placed an increased pressure on long-distance transport as there are no material recycling facilities for many waste materials in Sweden. Increased material recycling results in great environmental benefits but can at the same time lead to negative effects from the increased transport work. To minimize these negative effects, energy- and climate-efficient logistics solutions are required. Shipping is a very energy-efficient traffic type and waste is a product group that is particularly well suited for shipping, as it is low-quality goods that allow a longer transport time.

SHREK aims to develop knowledge that enables as large share as possible of waste generated in Sweden and that needs to be material recycling abroad are transported by sea. The project consists of three parts: 1) mapping the size and nature of the waste volumes that needs to be transported abroad as well as the conditions for using shipping for Swedish exports of waste. 2) development of logistics solutions. In this context, the role of the port is also clarified in terms of business models, coordination, resources and competence. 3) evaluation of logistics solutions with regard to environmental effects, service quality, costs, capacity and customer requirements. Logistics solutions will also be compared with other transport alternatives such as using a truck and / or railway solutions.

Working activities as a master student

As master students you will be part of the project team and work closely with the researcher group and company partners. You will help in the mapping of future transports needs, system's conditions and development of logistics solutions. More specifically this means:

- Estimation of volumes of waste that needs to be material recycling abroad (today and in the future).
- Identify location of sorting and material recycling facilities as well as customer demand on the collected waste streams.
- Investigate what is needed by the ports in terms of business models, coordination, planning, resources and competence to undertake activities that facilitates for export of waste (inventory, sorting, pre-treatment).

Methods used in the master thesis will be interviews with stakeholders, case studies, literature review, collection and analysis of statistics.

Contact us!

For more information please contact Linea Kjellsdotter Ivert (linea.kjellsdotter@vti.se, 0709 430434).