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Valorising CO₂ emissions saved by intermodal services: an approach to the freight transport sector

Abstract thesis

The issue of climate change is, in the last years, gaining more and more recognition not only among scientists, but also among politicians and common people. One of the sectors which produces a considerable part of the worldwide GHGs emissions is that of transport. Sustainable and green transportation must become the only way to move, both people and goods.

From an economic and political point of view, it seems that emission trading systems (ETS) can be a cost-efficient and feasible way to support the global reduction of GHGs emissions. Lots of countries around the world have already implemented emissions trading systems, and others are following this path.

This work aims to underlying and verifying if, and to what extent, ETS can be implemented to reduce GHGs emissions from transport, thus, consequently contributing to mitigating climate change effects. The idea behind this work is to bring together on one side ETS and, on the other, intermodal transport and its emissions. For this purpose, the case study of the Pordenone freight village was used as a real-life example for the estimation of avoided external costs and CO₂ emissions that could be sold in a hypothetical ETS dedicated market, thus allowing the nodes of the transport network involved to invest in greener initiatives, while also safeguarding the environment.

Key words: GHGs, freight transport, intermodal transport, ETS, CO₂, sustainable transport, climate change.