UMEÅ KOMMUN

Freight TAILS

# An Urban Consolidation Centre, the Right Solution or Not for Umeå?

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**Using data and analysis to determine the likely practicality of a new urban consolidation centre (UCC) in Umeå, Northern Sweden.**

Umeå Municipality is concerned about poor air quality in the city centre. Plans to reduce NOx emissions from diesel vehicles include completing a new ring road around the city by 2022. In 2012, proposals to target delivery vehicles included the potential to consolidate deliveries using a UCC.

As a first step, the Municipality tested assumptions about the amount of delivery vehicles entering the city. This led to a surprising conclusion.


Aim to improve air quality by reducing NOx emissions from diesel vehicles

**15**

15 transport companies interviewed

**21**

21 drivers interviewed

Data showed that the existing vehicle fill rates are quite high, especially in the morning peak

On average weekday 75 vehicles enter the city centre

## Scope of works

Umeå Municipality's Clean Air Programme identified the need to reduce heavy traffic in the city centre by encouraging more consolidated distribution; based on an estimated target to reduce vehicles travelling through the city by 350 daily.

The majority of goods enter Umeå from Stockholm in the south, taking 7–10 hours to drive between the two cities.

The first step towards building the UCC case was to analyse the results of previous traffic surveys. This indicated the goal of 350 fewer vehicles was far too optimistic.

A new survey sought to identify the potential advantages and challenges of consolidated distribution in the city centre, including the environmental impact. It also attempted to identify and assess the effectiveness of alternative solutions to improving air quality associated with freight vehicles.

- largest 15 logistics operators in the city were identified and interviewed
- carriers in the Umeå region interviewed
- site observations made
- 21 drivers interviewed across one week Monday – Thursday 07:00-16:00
- suppliers delivering directly to their clients with their own vehicles interviewed.

All the carriers contacted made reference to the use of some form of consolidated organisation (e.g. shipping agents or centralised carriers) except for one.

## Outcomes

Data showed that the existing vehicle fill rates are quite high, especially in the morning peak. As a result, an UCC would have only a marginal effect on nitrogen oxide emissions.

Summary conclusions included:

- high uncertainty whether the redistribution of freight to UCC would lead to desired congestion and air quality impacts, in part because of the city's geography
- the likely use of UCC by the operators was low, but the potential costs were high
- appeared to be only a marginal nitrogen oxide emissions impact.

As such, the Municipality decided not to further pursue the feasibility of an UCC in the city. The Municipality's Freight Plan has identified a number of measures to improve air quality.

## Lessons learnt

- Survey results showed a UCC would not be a viable solution to the urban freight transport issues in the city.
- Validating initial estimates and questioning assumptions is important before implementing solutions.

## Future of the project

The survey findings have been built into the Clean Air Action Programme, including the Freight Plan for Umeå city centre developed under Freight TAILS.

**The survey showed a marginal impact on nitrogen oxide emission levels. For heavy trucks it was only 0.020%**

**Decided establishing a UCC was not going to deliver the air quality improvements needed**

**Umeå Freight Plan outlines actions now planned to reduce NOx from heavy vehicles**

**Important to double-check all assumptions made before implementing actions**

Lina Samuelsson, project manager, Umeå Municipality, lina.samuelsson@umea.se
Lisa Persson, traffic planner, Umeå Municipality, lisa.persson.2@umea.se
Umeå Freight Plan English Summary

**Creating more sustainable cities by collaborating with partners to reduce the impact of urban freight movements**

Freight TAILS consists of 10 European cities and is led by Cross River Partnership, a public-private regeneration delivery agency based in London (UK).

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