


IPIC 2023

9th International
Physical Internet Conference

June 13-15, 2023
Athens, Greece

Faith, Hope and Data sharing!

- Deep concerns due to quality and the consequences from that

Per Eriksson and Catrin Wallinder
The Swedish Transport Administration

TRAFIKVERKET

Global emissions needs to be lower, much lower and very soon!

No need to explain why in this conference!

Sweden's take-off from EU goals through own national ambitions!

Among many…,
National Strategy for freight transports 2018
Governmental tasks – Horizontal collaboration, 2018 - 2029
Nordic Cooperation on high level (Nordic Council)
Government body (Transport administration) task
Management level and projects between Nordic Countries

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National Strategy for freight transports 2018
Governmental tasks – Horizontal collaboration, 2018 - 2029

- Transport efficiency
- Competitiveness
- Intermodality

- Horizontal collaboration
- Data sharing

The purpose of this strategy is to create the conditions for efficient, high-capacity and sustainable freight transport. The strategy provides a summary of the current situation and clarifies the overall direction of the freight and logistics area. The focus and related actions will contribute to achieving the transport policy objectives, strengthen the competitiveness of the business sector and promote a shift of freight transport from road to rail and shipping.

The strategy is the first of its kind and is intended to be a platform for continued cooperation in the field of freight transport. The measures identified in the strategy are proposed by the Government, but the success of the implementation of the strategy as a whole depends on continued responsibility on the part of all actors involved and on dialogue, knowledge exchange and collaboration being able to continue.

godstransportsstrategin.png.pdf (trafikverket.se)

Horisontella samarbeten med stöd av datadelning för ökad fyllnadsgrad - Bransch (trafikverket.se)

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Cooperation for sustainable freight transport in the Nordics

The business world needs good business conditions to develop more efficient arrangements.

- **Efficient freight** transports and **use of all modes of transport** for increased **sustainability**
- **Negative effects** of freight transport **need to be reduced**, such as emissions and congestion, social costs and working conditions

The purpose of the project is to propose and analyze **business models** that stimulate to increased load factor and intermodality in the Nordic countries.

  - Studies including data analysis, incentives and obstacles.
  - Demonstration (tangible) projects between Nordic goods owners and transporters.

[Samverkan för hållbara godstransporter i Norden - Bransch (trafikverket.se)]

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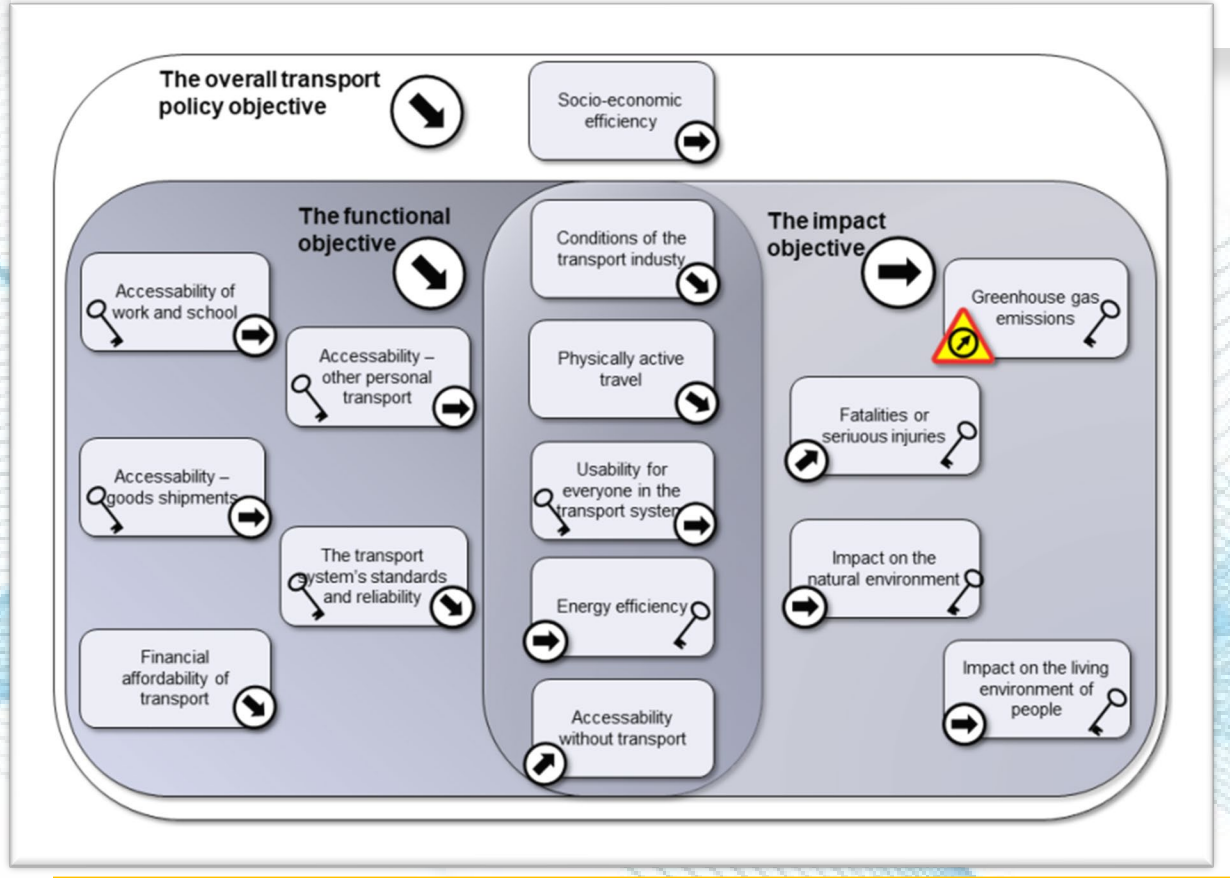
Doing well or not?

Frankly speaking, - it seems that our (Sweden's) society has not advanced towards a long-term sustainable transport solution - based on all relevant perspectives



The transport policy objective is to ensure a socioeconomically efficient and long-term sustainable transport solution for the citizens and business community of all of Sweden.

Transport policy objectives

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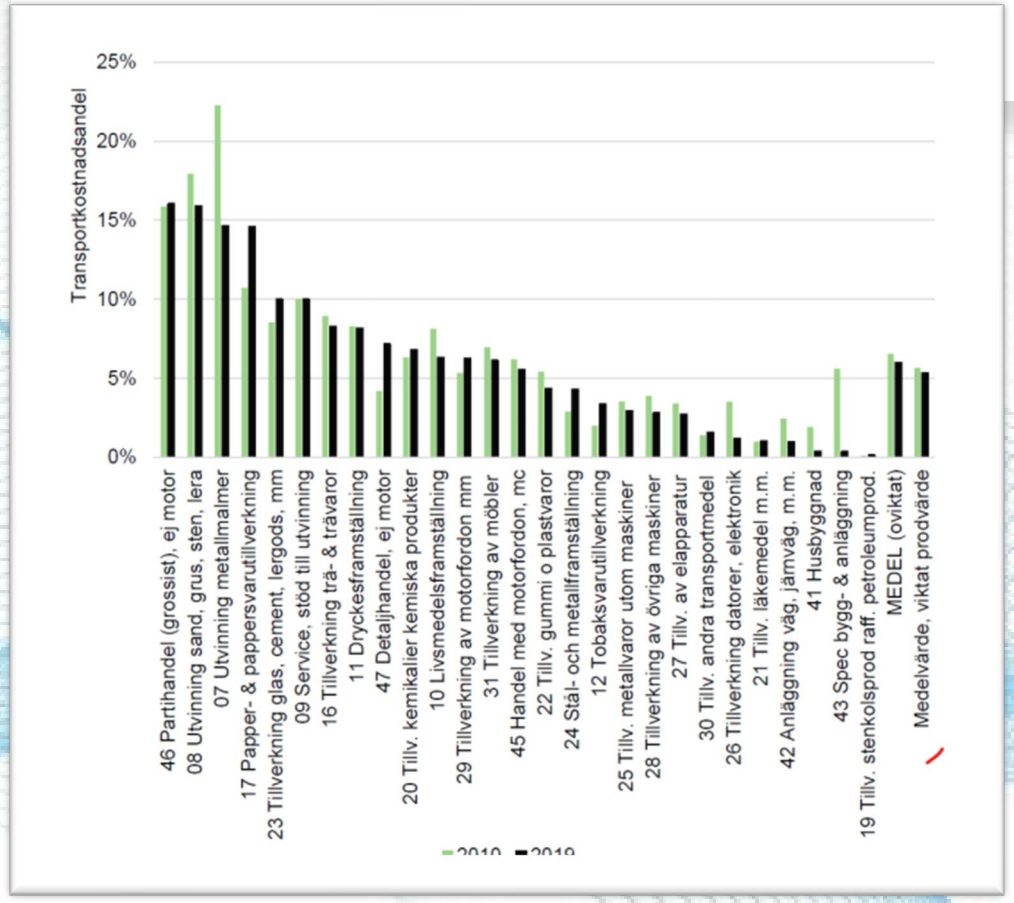
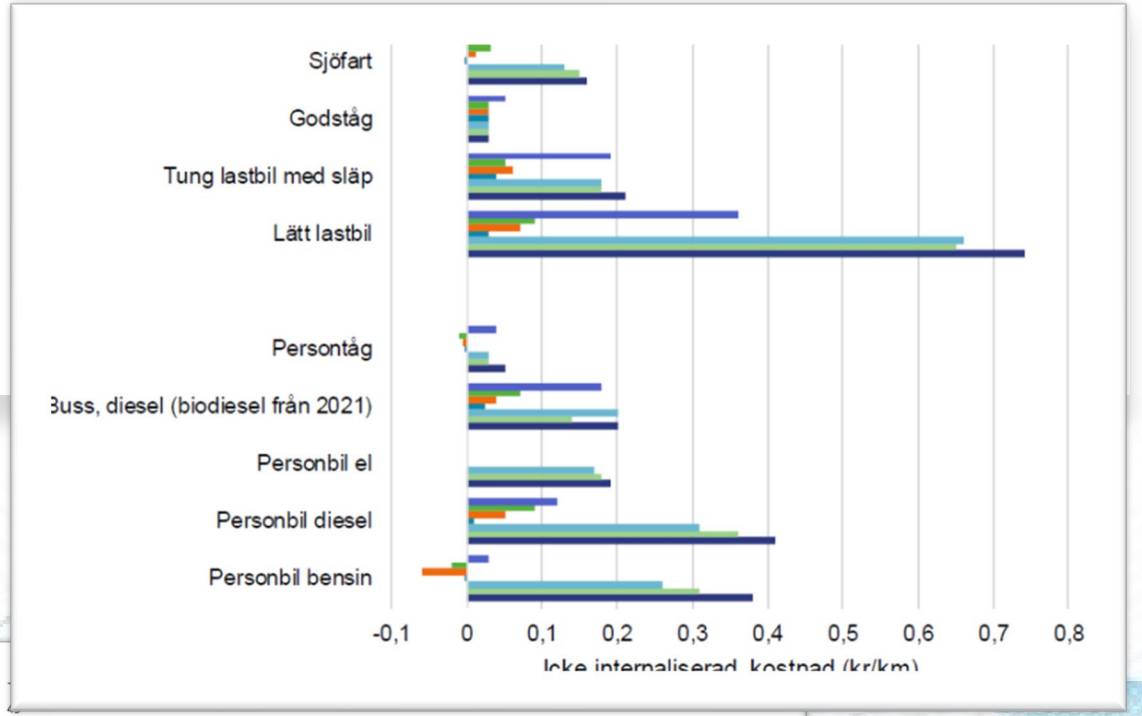
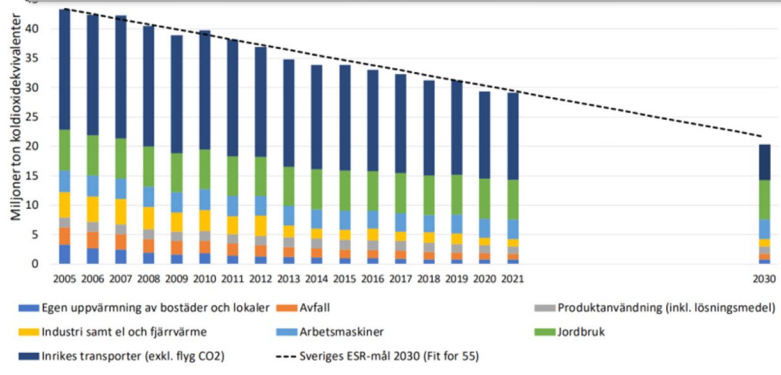
Doing well or not!







Figur 3.1. Sveriges utsläpp av växthusgaser (miljoner ton) i icke-handlande sektor 2005–2021, samt etappmålet enligt förslaget i Fit for 55 avseende utsläppsnivån 2030. I figuren antas det nationella etappmålet för utsläppen från inrikes transporter exklusive flyg ha uppnåtts 2030, men inga ytterligare utsläppsminskningar uppnåtts i övriga delsektorer efter 2021.
Källa: Naturvårdsverket (2023b)

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Swedish Commodity Flow Survey (CFS)

(CFS) is one of few large-scale surveys on freight transportation in the world!

Purpose is to describe firms' domestic and international movement of freight by all modes

The CFS contains records of individual shipments to or from a company in Sweden, with detailed information about each shipment.

Focus on movement of freight, not vehicles and vessels

Data also from administrative records and business registers

- Firms in the forestry, agriculture, sugar production and petroleum/fuel industry

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Firms leave information about shipments

The CFS is used to produce official statistics and conduct analyses of the freight transportation sector

Users include researchers, government agencies and private companies

Transport analysis responsible for producing the survey

The survey is conducted every 4-6 years

- Conducted in 2001, 2004/05, 2009, 2016 and 2021

Variable	Description
Shipment-level variables	
Value	SEK (based on invoice value, excl. VAT and transport cost)
Weight	KG
Cargo type	liquid bulk solid bulk container palletized swap bodies and trailers Other
Commodity type	NST 2007
Transport mode	Road, rail, sea, air or multi-/intermodal
Place of origin	Zip code (only within Europe), country code
Place of destination	Zip code (only within Europe), country code
Firm-level variables (from business registers)	
Sector	NACE code
Size	Number of employees

SURVEY LIMITATIONS

- **High production costs**
- **Response burden of firms**
- **Small samples and limited geographic resolution**
- **Lack of automated data collection methods**

 # To be developed – in progress…

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Available Models and data for planning of measures in Nordic Countries

Report describes the results of the access to tools/models and statistics/data as support in the work with the implementation in rethinking and optimizing of measures in the area of freight transport. The results covers the geographical area of Norway, Sweden, Denmark and Finland.

The purpose is to propose and analyze business models (organizational/collaboration models/data sharing) between Nordic actors that stimulate .. use of all modes of transport in cross-border freight transport between the Nordic countries.

Samgods (Sweden) Trafik- och transportprognoser - Bransch (trafikverket.se)
Nasjonal Godstransport Modell NGM (Norway) Projections for freight transport 2018-2050. - Transportøkonomisk institutt (toi.no)
Den Gröna Mobilitetsmodellen (Denmark) Den Grønne Mobilitetsmodel | Vejdirektoratet
Finland – developing national model (no name yet) Trafikledsverket

Models do support strategic planning and evaluation of major investments including logistics solutions (multimodal) and socioeconomic effects.

Local and more precise measures will models support but expert opinion and complementary models are needed for good results.

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Available Models and data for planning of measures in Nordic Countries

Inconsistence between official data sources/trade as an example!

Handelsrelation	scb.se*	tulli.fi*	ssb.no*	statbank.dk*
Från SE till FI	7,8	7,8		
Från FI till SE	8,6	5,7		
Från SE till DK	6,3			7,2
Från DK till SE	6,0			5,2
Från SE till NO	8,1		7,1	
Från NO till SE	23,5		19,8	
Från FI till NO		0,9	0,9	
Från NO till FI		2,8	2,6	
Från FI till DK		0,9		1,0
Från DK till FI		0,6		0,6
Från NO till DK			8,9	8,1
Från DK till NO			2,0	2,1

*Statistik källa

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Available Models and data for planning of measures in Nordic Countries

- Measures as regards rethinking and optimizing

Category/measures	Modell	Statistics
Freight owners		
Accessibility of production and logistics locations	No	Company
Improved knowledge, dialogue, and collaboration	No	Process
Consider the entire transport chain and not only individual legs	No	Company
Information and awareness	No	Process
Vertical liaison between owner, freight forwarder and carrier	No	Process
Transport and logistical services		
Commercially open terminals with non-discriminatory pricing	No	Company
Financial subsidy at start-up	No	No
Re-thinking of train routes for coordinated timetables	No	No
Quality management	No	Company
Horizontal collaboration between goods owners to share information	No	Company
Long-term planning to ensure stability in revenue and costs	No	Company
Establishment aid (not subsidy), Rent-pool intermodal carriers,	No	Company
Extension of analytics to the logistics system	Derived	Company

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- Measures as regards rethinking and optimizing

Infrastructure optimisation		
New efficient and competitive door-to-door transport systems	Derived	Company
New transport system with new production system with increased availability and service	Derived	Company
Transport system for goods with high quality requirements supported by IT systems	Derived	Company
Incentives to use longer, heavier and/or wider carriers and vehicles	Yes	Company
Integration of production systems (e.g. wagonload and intermodal => block trains), sea and rail in combination (rail to port) and/or new transport system with increased transport capacity	Yes	Company
Coordinated working timetable/change in working timetables	No	No
New generation of vehicles and craft. More powerful locomotives and more high-carrying wagons/larger craft.	Yes	No
Better capacity utilisation	***Yes***	***Yes***
Upgrade the infrastructure according to longer and more capable vehicles and craft	***Yes***	***Yes***
ERTMS signalling system with the potential for increased speed	Derived	No
New wagons. Transition of air braking systems, with associated regulatory changes	No	Company
Trimming or physical measures. Functional nodes (ports and terminals) = > reduced time/costs	Derived	Company
Changing restrictions. Expanded time windows for traffic to and from nodes, and management	No	Company

Policy and regulations		
Infrastructural restrictions	***Yes***	***Yes***
Climate effects and choices filtered down from freight owners to transport buyers and planners	Derived	Yes
Stimulus needed to increase financial incentives to shift to rail	Derived	No
Fuel and other taxes	***Yes***	***Yes***
Infrastructure fees	***Yes***	***Yes***

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Snowsculpture ”Zeus and och boredom” - Elisavet Stefa, Nathalie Lundberg och Jonathan McMurry, Alicia Grevsten. **Photo: Viktoria Pettersson,** Konstlärare Konstskolan Sweden 2023

Faith, Hope and Data sharing!
And …
Doing better through collaboration?

Smarter and more effective logistics solutions

Enhance demand och supply

- Business functionality/service and Infrastructure planning measures
- Measures including regulation and pricing, to infrastructure investments in all modes of transport

Data and facts are the basis for

- correct and timely measures
- methods and planning models

Let us know if you have interest in exchange and enhanced planning
Advices and good references
Anyone?

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June 13-15, 20
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www.pi.events/IPIC2023

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alice | Alliance for Logistics Innovation through Collaboration in Europe

ENIRD ICCS

Expanding the logistics Scope