

# Report on the work progress in the DRCFT

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This report briefly describes the work progress on the 2021 four topics and communication until 08 February 2022. The four topics were decided by the board of DRCFT in November of 2020.

## Topic#1: Evaluating the effects of the usage of A-double vehicles

- Status** : Finished
- Aim** : This topic aims to develop a methodology based on a cost-benefit approach to quantify the effects of the A-double combinations if introduced to a line-haul transport system in Denmark.
- Activities** : Collecting real data, literature review, building the simulation model, collecting the cost and operations data, running the model, writing, and discussing the results as a research paper.
- Outputs** : Research journal paper published in the journal Sustainability and the results have been told through Jyllands-posten

## Topic#2: Impacts of road disruptions on freight transport and mitigation strategies

- Status** : Finished
- Aim** : This topic aims to provide transportation planners with a novel approach for managing road disruptions and the resulting transport delays. Based on real data and different scenarios of disruptions, the study provides several insights into possible re-planning strategies and how to select the best cost-effective strategy taking into consideration cost, time delays, and CO2 emissions. It also supports the transition of freight companies towards the intelligent disruption management system.
- Activities** : Collecting real data, reviewing the literature, building the simulation-optimization model, collecting the cost and road disruption data, running the model, writing, and discussing the results as a research paper
- Outputs** : Research journal paper submitted to IEEE Transactions on Intelligent Transportation Systems

## Topic#3: Impacts of COVID-19 on the Danish freight transport industry

- Status** : Finished
- Aim** : This topic aims to identify the COVID-related impacts on the Danish freight transport industry and possible mitigation strategies. A survey questionnaire was designed and distributed to many Danish freight companies.  
**Note:** unfortunately, we have not received enough responses to the survey. Given the importance of the topic, we managed to achieve the aim of the topic from a global perspective based on a literature review instead of reporting nothing.
- Activities** : Reviewing the literature, preparing and coding an initial draft of the survey, pilot testing, spreading the final survey to many companies, writing, and discussing the results as a research paper.
- Outputs** : Research journal paper submitted to the journal Transportation.

## Topic#4: Demand and requirements for the A-double vehicles

- Status** : Still in progress (Omicron pandemic affected the progress of the interviews)



**Aim** : This topic aims to collect the views of major Danish freight companies on the positive and negative effects of the A-double vehicles. Examples of positive effects are cost savings, emission savings, etc., while negative effects include, e.g., extra investment costs, qualified drivers, risks of road safety, modal shifts, etc.

**Activities** : Reviewing the literature, preparing the interview guide, pilot testing, interviewing four or five logistics companies, writing, and discussing the results as a research paper.

**Outputs** : Research conference paper is being written

Communication (to be filled by Kristian)	
Website	Draft has been made, will come online in Marts 2022
Newsletters	First newsletter will be circulated in spring 2022
Other activities	4 new members have been recruited, who will join the center in the membership-year 2022-2023: FREJA Transport & Logistics, Schmitz Cargobull AG (the first foreign DRCFT member), Bring Danmark A/S, GLS Denmark A/S.