

EuroTeQ Collider 2024

Challenge

Making CO2 savings tangible and economical

Category

Technology

Focus

Entrepreneurship

The project described here is based on the optimization of transport routes in the German construction industry, specifically the reduction of empty loads of construction site trucks that transport materials to or from a construction site. When supplying and disposing of construction sites, one of the two journeys is often an empty load, which could be used effectively for further material transports by optimizing the networking of construction sites. We are currently calculating the transport route and the resulting CO2 consumption and therefore know how much CO2 can potentially be saved by optimizing so-called 'return freights'. Now we want to go one step further and make these savings certifiable and creditable for our customers. The aim of this certification is to make the positive ecological effect competitive for our customers and therefore also economically interesting.

Problem definition

Looking back to 2021: For the year, the 'Bundesministerium für Digitales und Verkehr' (bmdv) calculated a total of approx. 256 million truck journeys in Germany. This corresponds to approx. 22,973.1 billion truck kilometers driven. The proportion of freight transportation with low-emission vehicles (Euro 5 and better) is approx. 98.9 percent. In the same analysis, the bmdv determined approx. 154.7 million empty trips with a total of approx. 6,776.6 billion empty kilometers. Assuming that every 15th truck on German roads is a construction site truck that transports materials to or from a construction site, this means an empty kilometer potential of approx. 450 million kilometers per year.

Description

The starting point for the challenge is our existing software, which networks construction projects throughout Germany and thus reduces empty loads on construction site trucks. The next step is now to make this networking tangible from an economic and ecological perspective. The basis for this is the kilometer and CO2 savings, which we can calculate precisely using our software and which we now want to have priced in order to be able to demonstrate cost-effectiveness.

Key questions

- How can CO2 consumption and savings be clearly measured?
- On what data basis is certification possible?
- How can the certificates be integrated into the competitive structure on the market?
- How can the ecological advantage be translated into economic advantages?

Links

<https://bmdv.bund.de/DE/Home/home.html>

Skills

- Creativity
- Ambition
- Desire to achieve great things through a project
- Basic understanding of market processes

Partner

At Mineral Minds, we connect the construction, supply and disposal industries on a digital platform and automate and optimize their core processes with the support of AI. As a central platform for the coordination and processing of optimized mineralic building material streams, we make a significant contribution to sustainable development and closed-Loop economy.