"The potential for making transport more efficient is enormous"

RGS Nordic will share transport data with its customers in order to avoid empty trucks and unnecessary CO$_2$ and particle emissions.

Transportation of goods on trucks represents a steadily rising environmental and health challenge worldwide. On the European road network alone, trucks account for 30 per cent of CO$_2$ emissions although they account for only four per cent of the total traffic. To make things worse, many trucks drive around empty because of the logistical challenge of fully exploiting their capacity both ways. The Danish recycling company RGS Nordic would like to change that.

"At RGS Nordic, we are specialists in the treatment of contaminated soil, industrial wastewater and recycling of construction waste," says Jonas Brandt, head of group IT strategy and innovation. "We operate more than 35 receiving and handling facilities in Scandinavia, at which we receive more than 2.5 million metric tons of soil and waste annually. So while our core business is incredibly green, the associated transport results in significant costs and a clear negative impact on the environment. The potential for streamlining and reducing CO$_2$ and particle emissions is enormous."

Particularly the fact that between 50 and 80 per cent of the trucks are on the road without carrying any cargo has prompted RGS Nordic to look at new solutions, says Jonas Brandt:

"When we began to analyse the data, we quickly found out that a lot of the kilometres are driven by empty trucks. The problem is simple: our customers unload their waste and..."
drive away with empty trucks while we ship the recycled waste and drive our trucks home empty. If you start thinking about joining the two flows, you can significantly reduce the transport needs. In the ideal world, you should always drive a fully loaded truck. That goes for all industries.”

In order to target the unnecessary transport, RGS Nordic is developing a new IT solution that can create transparency regarding the various transport needs:

“Basically, it is about making data available,” says Jonas Brandt. “If we share data regarding our transport needs and our customers share theirs, we can actually start optimising the logistics. If we are to succeed, however, each party must be brave enough to share information that is otherwise considered confidential in a safe manner. This is clearly an obstacle.”

Participating in the SDG Accelerator for SMEs has brought about several concrete innovation tools, says Jonas Brandt:

“RGS Nordic is a medium-sized company, which means that we do not have a major innovation or business development department. Therefore, it has been extremely beneficial to meet with Deloitte and UNDP experts who have helped structure our thoughts as well as identify risks and success factors, including the positive effects, for example relating to public health, of reducing transports. From here, we have become much clearer on what we really want.”

In addition to the business contribution, the accelerator process has also helped strengthen communication within the company:

“Our consideration for the environment has always been deeply embedded in our DNA. Nevertheless, the Sustainable Development Goals have been a clear lever for communicating more broadly into the organisation. It makes a big difference when you articulate the specific goals. Our contribution to the world suddenly becomes very tangible to the benefit of all staff.”

The next step for RGS Nordic is to refine the software algorithm that will help solve the transport challenges. To this effect, students from Skylab, the innovation unit at the Danish Technical University (DTU), have been brought in to assist, says Jonas Brandt:

“The people from DTU are very skilled and have great energy. Recently, we have spent a lot of time trying to understand our customer’s situation. At the same time, we are diving deeper into the logistics optimisation tool, creating a clear picture of the expected potential. Last but not least, we have to reach out to our customers because we need their data. Solving the transport challenge is not something that we can do alone.”

Jonas Brandt has great expectations for the future solution:

“Every day, up to 2,000 trucks drive into our facilities. Worldwide, the number is enormous. As society, we have to cope with the unnecessary CO₂ and particle emissions that concern not only Denmark but the entire planet. At the same time, there is obviously a significant cost reduction in sight, both for us and for our customers. This solution speaks to the head, to the wallet and to the heart and the solution can become a huge cost-saver.”

RGS Nordic is here to ensure the treatment of contaminated land, industrial wastewater and the recycling of construction waste, which we are proud of. Through the SDG Accelerator for SMEs, we have become better at addressing the environmental and health burden that are inextricably linked to transporting materials by truck. By developing a technology and a model, which can significantly reduce freight, we hope to contribute further to the Sustainable Development Goals in a way that everyone else can learn from and even use.”

Henrik Grand Petersen, CEO, RGS Nordic