

PostNord: We save 1 out of 8 trucks



In the autumn of 2019, one of the largest logistics operators in the Nordics, PostNord in Denmark, initiated a 'trial project' with SpacelInvader to explore if the SpacelInvader transport system could optimise and create gains in their line-haul operation where they transport goods between terminals.

Both parties worked closely together in a carefully planned process. First three and later five line haul terminals deployed the solution. The trial result was very convincing and lead to a Group contract, where PostNord now is implementing the SpacelInvader pallet rack system in its daily operations. The gains from

the trial are remarkable. With fuller and better packed trucks, PostNord currently saves every 8th truck to the benefit of their environmental and financial bottom lines. The optimisation has only just begun – the ambition doesn't end here. The solution is now available to the entire PostNord Group, also outside Denmark.



Terminal Manager Jonas Damsø instructing his operations team at the terminal in Køge, where SpaceInvader is used in the optimization effort.

Part of a green ambition

Fewer kilometers on the road lead to significant reductions in CO₂ and NO_x to the benefit of both the climate and the green transition, which PostNord is working purposefully to take part in. Jakob Manori, CEO in PostNord Logistics A/S provides some insight into the partnership:

"The system is patented and they are good at what they do in SpaceInvader. They have really listened to our input throughout the trial period, and we have now entered a Group contract and have a sustainable system in operation that ensures fewer transports and less CO₂ and NO_x emissions."

Jakob Manori

Trial period is key to successful implementation

During the trial, PostNord optimised the effect of the solution in several stages. The racks are modular and available in several heights. That makes it possible to double stack and optimise the packing of pallet goods, including odd sized and dangerous goods. In this way, PostNord can significantly increase the loading capacity in their trucks, which are now much better filled. In theory by 100 percent.

In the middle of the trial process, every 10th hub-to-hub truck was saved, and as operations got to know the system, the gain grew. At the end of the trial period, PostNord was able to cut away every 8th hub-to-hub transport. Even greater gains are expected as the solution is implemented more widely.

PostNord estimates that they saved about 30,000 km of driving by using the racks in the trial period alone.

Jakob Manori insists that PostNord as a company has a special responsibility to take the lead in the green transition - a responsibility which they happily take on.



Jakob Manori, Director, PostNord Logistics A/S



"The potential is huge. It is our goal to optimise further and we estimate to reach gains of 15% or more in both CO2, NoX and costs, when the solution is implemented more widely."

Jakob Manori
Director, PostNord Logistics A/S

"I encourage the entire industry to make their individual contribution to the green transition. The transport and logistics sector accounts for 15% of the total Danish CO2 emissions, and we as an industry can actually make a difference if we all go the green way"

Jakob Manori

The ambition doesn't stop there

The trial period process was executed at line-haul operations to test the concept in that part of the business first. The CEO also sees great opportunities in other parts of the PostNord Group.

"If we could get the pallet concept into our distribution chain, the potential is even greater. It is a bit difficult to define the full scope, because we do not yet know the final implementation. For us as a company, it is important to be a good example in the industry,"

Jakob Manori

Financial gains

- The trial showed that PostNord saved about six daily truck trips. If more racks are put into operation, the number of trucks saved will go up.



SpaceInvader offers PostNord an optimised freight height – for all pallets, from pallet packing, to loading and offloading and during transportation.

- The financial gain (ROI) for the trial period is about 2.4 x the effort (investment). The savings will increase the more kilometers the system is used.
- Longer routes are particularly interesting for further optimisation, because the financial gain potential goes up on longer routes where the freight price per pallet typically is higher. The more expensive shipping prices = the greater the savings.



The SpacelInvader system is used across PostNord Logistics hubs in its Danish operations, circulating between five terminals. Here from the terminal in Køge, Denmark.

- PostNord saved about 1.4 million DKK during the trial, after deducting the costs of using the system. On average they expect to save DKK 4-6 million annually with the first 300 racks in use.

Climate and environmental gains

- In the trial, PostNord saved about 200 truck trips corresponding to 30,000 km - and registered an average CO₂ / NoX saving of 12.79%. With this every 8th truck trip is taken out of the equation.

A tailor-made Group agreement

- Following the trial, PostNord and SpacelInvader signed a Group agreement where all PostNord companies in both Denmark and the neighboring countries can use the system. Especially long line-haul transports in e.g. Norway, Sweden and Germany can unleash great potential gains.
- SpacelInvader continues to assist PostNord in analysing operational data and optimising the operations in which the solution is implemented to benefit from the learnings and to collaborate on further development.

- In addition to the current line-haul transport in Denmark there is great potential within the distribution business.
- PostNord in Norway is in the process of a trial package.

The trial package

The trial is a structured implementation course, where the customer and SpacelInvader together plan and organise training, testing and commissioning of the system and together define a specific operations area, either geographically or technically.

With the first 300 racks in circulation between five transport terminals in Denmark, PostNord expects to save DKK 4 to 6 million DKK per year.

- Purpose is to optimise, evaluate and document the effect and value of the system together. At the end of the trial period, the customer receives a value report and a specific business case. With the business case in hand, the customer can now see the gains and the scaling potential.
- The trial course works with both instruction of relevant employees and operational adjustments needed to optimise the effect of the system, just as the customer's logistics planners and operating staff get concrete insights and learnings about the new way of working.
- In this way, it becomes visible to all parties involved - from operating personnel, to planners and management - how the double stacking and optimisation system creates value in the supply chain.

SpacInvader's business model

The business model is based on a flexible rental model, where the customer rents the pallet racks from SpacInvader as needed. In this way, the customer can build and adjust the number of pallet racks so they build up the pool volume needed at all times.

The duration of the lease varies from customer to customer and is agreed individually but is often based on either quarterly or annual contracts.



About SpacInvader

SpacInvader, founded in 2015, has developed the unique and modular transport system 'SpacInvader'. With its patented design the system delivers a greater load factor in your transport operations through easy, safe and efficient double stacking of pallet cargo – saving space, money and CO2. The concept reduces both warehousing and transportation costs

and optimises both planning and packaging of trucks and storage spaces. Better packed trucks mean fewer trucks on the roads. It is SpacInvader's mission to streamline the logistics industry so that it becomes more sustainable for the benefit of customers, carriers, society and the climate.

www.spaceinvader.com